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Once again, and after roughly a year, NDU Spirit finds itself before the challenge renewal. So here it is, adorned in colors and aesthetically enhanced, as a means and as motivation to probe further in its structural, contextual and thematic persona, which aims at going in par with NDU's mission of development and change.

The Editor

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ndu spirit

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NDU Spirit A periodical about campus life at Notre Dame University – Louaize.

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A Word from the President Rev. Fr. Walid Moussa



n that day, only a few knew about him, the one who was to be born. On that day, only a few knew about his real identity. They knew! But were they able to understand!? The question was “How could this happen?” The answer to this question was “Nothing is impossible.” On that day, the impossible became possible, the supernatural became natural, the divine became human, the mind was challenged, and reason was incapable. On that day, only faith had the right approach to know and understand the mystery.

On that day, all understandings changed and they were open to truth beyond human level. The change brought new ones and enriched the old. On that day, our limited capacity became open to the Infinite... Faith and acceptance led to the “glory of God in the highest” and to “peace to His people on earth”. On that day, steadfast faith discussed, wondered and doubted. All paradigms of faith were not anymore inflexible!

It was a new era, it was the beginning of a new time, but rather it was the fullness of time, the time of openness to faith, and willingness to change of all paradigms. This change cannot but be rewarded. Believe, accept, and go on... It is the time of “I am the maid of the Lord; let it be the way it should be...” It is the time of the “nothing is impossible”.

I have all faith in NDU’s potentials, I believe in the impossible, knowing that it will be possible. I have needed all faith and courage to accept what is the will from above. I have all faith that removes fear, I am not afraid! That is the truth I want others to share with me; understand the mystery of being at NDU and share its richness. The richness of renewal! Let us put our daily life at the disposal of the new, the new era, the era of

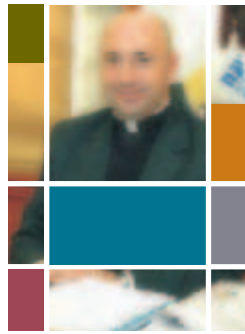
change, the change of paradigms. That is our challenge! That is our openness to the future!

If Mary had not believed... If Joseph had not believed... If they had not believed, what would have happened?

That day has always been repeating itself... but the circumstances have always been different... That day has arrived at NDU, and it is here! It is calling on your faith and courage.

o | **MERRY
CHRISTMAS
AND HAPPY
NEW YEAR
2006**





2006

About Father Walid

It is with great pleasure that NDU *Spirit* announces the nomination of **Father Walid Moussa** as President of Notre Dame University, Louaize. Below we present some information about his life and achievements.

Father Moussa was born in Wadi Bnehlay, Shouf, Lebanon, on October 3rd, 1966, and has both Lebanese and Italian citizenship. He entered the Maronite Order of the Blessed Virgin Mary (OMM) in 1984 and was ordained priest in 1990. He is fluent in Arabic, Italian, English and French and has done studies in Syriac, Greek and Latin.

Father Moussa obtained BAs in Philosophy and Sacred Theology at the St. John Lateran University, Rome, in 1987 and 1990 respectively, followed by an MA in Ecumenical Theology in 1993 at the Aquinas in Rome and an MSA in Business Administration at Madonna University, Michigan, USA, in 1995. These studies were crowned by an STD in Ecumenical Theology at the St. Thomas Aquinas University in Rome, followed by a Post-Doctoral in School Administration at St. Joseph's, Beirut. He also has certificates in Quality Management.

Father Moussa's field research has covered multicultural questions, including the exploration of strategies for an intercultural institution at N.D.-Louaize-College, and the school integration of students in difficulties. His degree dissertations have dealt with the role of the Maronite Church for Christian unity and the Lutheran understanding of the Lord's Supper. He became a Salzburg Seminary Fellow in 2000 and has been a member of the Delta Mu Delta National Honor Society in Business Administration (USA) since 1994. In 1999 Father Moussa received the Award of Honor (Trim and Fitness Sport for All [TAFISA]) at the 16th International Congress in Cyprus.

He has had the following past appointments:

- | *Director of the English Section, N.D.-Louaize College, 2002-2005.*
- | *Director of Administration, Notre Dame University, Lebanon, 1999-2002.*
- | *Part-time Assistant Professor of Cultural Studies, Notre Dame University, 1996-2005.*
- | *Financial Assistant, Seminary of the Maronite Order of the Blessed Virgin Mary, Sehayle, Lebanon, 1996-1997.*
- | *Chaplain, Veteran Affairs Hospital, University of Michigan and St. Joseph Hospitals, 1993-1995.*
- | *Religious Master, Seminary of the Maronite Order of the Blessed Virgin Mary, Rome, 1991-1992.*
- | *Pastor, Diocese of Montecassino, Italy, 1990-1993.*

A very warm welcome to our new President

Appointments and Reappointments

The following appointments and reappointments were announced on 27th September, 2005:

- | Fr. Boutros Tarabay
Presidential Counselor
- | Fr. Samir Ghsoub
Director of Finance
- | Fr. Roger Chikri
Director of Administration
- | Fr. Jean Abou Chrouh
Special Presidential Representative at NDU-NLC
- | Fr. Boutros Bou Nassif
Special Presidential Representative at NDU-SC
- | Fr. Bechara Khoury
Associate Director of SAO
- | Fr. Khalil Rahme
Director, School of Music and University Choir
- | Fr. Fadi Bou Chebel
University Chaplain General
- | Fr. George Darwiche
Associate Director of Administration for Construction
- | Fr. Elie Sfeir
Associate Director of Administration for General Services
- | Fr. Adib Ghossain
Associate Director of Administration for Maintenance
- | Fr. Abdo Antoun
Manuscript Editor, Office of SRD
- | Fr. Abdo Sleiman
Assistant Director for University Services, NDU-SC
- | Fr. Salim El-Rajji
University Chaplain, NDU-Main
- | Fr. Marwan El-Khoury
University Chaplain, NDU-Main
- | Fr. Mounir Fakhry
University Chaplain, NDU-NLC
- | Fr. Nabil Raffoul
University Chaplain, NDU-SC

NDU, Mexican Embassy and Cervantes Institute

On November 24th, 2005, an agreement of cooperation was signed between NDU President **Father Walid Moussa**, the Ambassador of Mexico **H.E. Arturo Punte** and the Director of the Cervantes Institute in Lebanon **Señor José Manuel Delgado de Luce** for a programme allowing the training of NDU students in the Embassy during each semester and their introduction to diplomatic work and its rules. In addition, they will receive a scholarship to learn Spanish at the Cervantes Institute.



H.E. Arturo Punte, signs the agreement ▲

Present at the signing ceremony were the NDU Vice President for Research and Development **Dr. Ameen Rihani**, the Vice President for Academic Affairs **Dr. George Eid**, the Director General for Public Relations **Mr. Suheil Matar**, the Dean of the Faculty of Business Administration **Dr. Elie Yashoui**, the First Secretary of the Embassy **Señor Tonatiuh Romero** and the Attaché for Culture and Commerce **Señor Javier Gongora**.

Father Moussa expressed his thanks and appreciation to Ambassador Punte, and also to the Embassy for its support in many fields, notably in the events organised by the Lebanese Emigration Research Center. He said *The Month of Back to the Roots* organised by the University and the Maronite League every year was an indication of the efforts of the University to strengthen and affirm relations between Lebanon and Mexico, for which it received

Mexican students of Lebanese origin coming to the session to learn the Arabic language.

In his turn, Ambassador Arturo Punte insisted on the strong relations binding Mexico and Lebanon, adding that this new agreement would help NDU students in diplomatic practice as well as teaching them the Spanish language. It would give them an opportunity to face the challenges of competition in the future and strengthen the mission of Notre Dame University locally and worldwide. The Embassy was strongly attached to this association and happy to cooperate with the University for giving the students ever more potential.

The Director of the Cervantes Institute **Señor de Luce** spoke of the importance of the Spanish language, which was the most widely spoken after English.

Finally, Father Moussa presented the Ambassador and de Luce with the encyclopedia *The Virgin Mary in Lebanon* published by Notre Dame University.

Admissions In Action!

Dr. Elham Hasham,
Director of Admissions

At the beginning of this academic year 2005-2006, I would like to wish institutions around the world prosperity and success in all their endeavors. The Admissions Office has started its annual ritual of orientation and recruitment both locally and internationally. Our international student body is rich with diversity of religions, cultures and backgrounds and this will most definitely add a distinct flavor to the overall student body of Notre Dame University. The interaction among students results in an exchange of ideologies and perspectives for the enrichment and enhancement of individualism.

Without doubt, globalization is a major factor reshaping societies in all their facets; thus, contributions from distant lands are significant in our everyday activities and determine a completely different perspective for our local existence.

"Internationalization is an institutional process that in some way internalizes the concept of openness to the world in all the activities and organizational aspects of the university and that may launch an internal transformation to prepare the university to act more

directly on the international or global scene" (Jean-Pierre Lemasson). This is exactly what Notre Dame University is aiming for in an environment of intense competition. NDU is preparing its beneficiaries to think in both a global and a differentiated context, to take a more cosmopolitan view and to be more aware of cultural differences to promote an open and understanding mind. Today, this is even more crucial as the complexities of the world around us seem to increase exponentially.

The various units at NDU offer a realm of potential collaboration so that our students are able to clearly chart their educational paths. Our purpose is to create and disseminate knowledge of universal validity by facing up to our responsibilities in a world in which symbolic frontiers are becoming more important than physical ones. Consequently, NDU implements highly operational approaches to bridge the gap between discourse and day-to-day practice by creating convergence between all university services and the interests of our academic stakeholders.

The Admissions Office is totally committed to the promotion of NDU at

large. We start once again to visit schools for orientation, to participate in school forums and educational fairs, to maintain our contacts with educational institutions, in Lebanon and abroad, and to enhance the image of NDU. Among these contacts and events are the annual Dubai Educational Exhibition; the National Apostolate of Maronites (NAM) in USA; the College Board in USA; the European Association of International Education (EAIE) and the American Association of Collegiate Registrars and Admissions Officers (AACRAO).

Annually, NDU participates in the Gulf Education and Training Exhibition (GETEX): it is the largest Education and Training Show in the Arab World. It is an event that is supported and sponsored by **H.H. Sheikh Khalifa bin Zayed Al Nahyan**, President of the United Arab Emirates; **H.H. Sheikh Maktoum bin Rashid Al Maktoum**, Vice-President and Prime Minister of the United Arab Emirates and Ruler of Dubai; and **H.H. Sheikh Nahayan bin Mabarak Al Nahayan**, Minister of Education and Chancellor of UAE.

The number of participating institutions increased by 40% in 2005. There were over 350

universities, institutions and training organizations from Lebanon, Qatar, UAE, KSA, Kuwait, Bahrain, India, Canada, Australia, France, UK, Italy, Turkey, New Zealand, Germany, Greece, USA, Iran, Switzerland, Egypt, Malta, Morocco, Malaysia, South Africa, Netherlands, Pakistan, Ireland, Slovakia, Oman, Jordan, Spain, Hungary, and Seychelles. Seminars and workshops are also offered during the Fair. Attendees include academic professionals, parents, students, school counselors, MBA seekers and administrators.

GETEX is the Middle East's leading student recruitment exhibition and attracts more than 20,000 visitors every year. Expatriates account for more than three-quarters of the 70 nationalities that comprise UAE's 4 million population and this

tremendously affluent society recognizes the importance of quality education. At the turn of every academic year, over 15,000 students graduate from high schools in UAE. Priority areas of study include banking, business and management, communications, computer science, engineering, finance, hospitality, IT, media, medicine, sciences and tourism. In addition, the competitive environment in the Middle East has created the need for working adults and executives to focus on professional education as a means to climbing the ladder of success. Thus, graduate courses are highly in demand.

NAFSA – The Association of International Educators – is the leading professional association in the field of international education and exchange and the global workplace. NAFSA sets standards of good practice; provides training, professional development and networking opportunities; and advocates for international education. NAFSA believes that international education advances learning and scholarship, builds respect among peoples, and enhances constructive leadership in the global community. By nature, international education is fundamental to fostering peace, security and well-being. Notre Dame University is a member of NAFSA and this year in Seattle, Washington, there were over 6,800 registrants from the US and 90 other countries. The workshops, seminars and numerous special events and programs I attended have renewed my commitment to international education by increasing my awareness of how taking full advantage of networking and social opportunities can raise professional development and skill-building levels. Once again, the 2005 NAFSA Conference offered fresh strategies and solutions, an innovative way of thinking, a revitalized knowledge and skills base and new contacts and colleagues from around the globe.

NDU was the only institution from the Middle East and this always opens the path to more exposure. NDU's presence and contributions were always acknowledged and on several occasions the opportunity to give a presentation was offered since the theme of this year's conference was *Opening Minds to the*



▲ *Dr. Hasham at the annual NAFSA Conference in Seattle.*



▲ *The Pittsburgh Friends of NDU.*



▲ *The Boston Friends of NDU.*

Global Community. There were seminars on each of the five strands that created and disseminated information to enable us to perform better:

- | *Education Abroad Knowledge Community*
- | *International Education Leadership Knowledge Community*
- | *International Student and Scholar Services Knowledge Community*
- | *Recruitment, Admissions, and Preparation Knowledge Community*
- | *Teaching, Learning, and Scholarship Knowledge Community*

There was the opportunity to meet the guest speakers and they also were introduced to NDU. **Robert Kagan** is the director of the U.S. Leadership Project at the Carnegie Endowment for International Peace. **Richard Riley** is former Governor of South Carolina and former Secretary of Education. **David Broder** is a national political correspondent reporting the political scene for the *Washington Post*. **Shashi Tharoor** is Under-Secretary-General for Communications and Public Information of the United Nations and has led the Department of Public Information since 2001.

Again it has been a valuable and enriching experience and has instilled more deeply the profound belief in internationalization and the impact it has on education. The professionals and events have promoted ideals and a spirit that serves as a foundation for fostering cross-cultural understanding through the pursuit of international education and exchange. The network of skills, information, friends and colleagues that were gained at NAFSA, Seattle, 2005 affirms that international education is a profession that plays a key role in building a more peaceful and productive global community and this is becoming a

competitive advantage for NDU.

In coordination with NDU's VP for Sponsored Research and Development, **Dr. Ameen Rihani**, Dr. Hasham visited Boston and Pittsburgh for the purpose of establishing the American Friends of NDU. In Boston, **Monsignor Lahoud** hosted the meetings at the rectory of Our Lady of the Cedars of Lebanon. There were many preparatory meetings and contacts made. A committee has been launched chaired by **Dr. Lateef Chdeid**.

At the meeting, there were many who are active and prominent members of the community and are enthusiastic about assisting NDU in its endeavors:

Mrs. Rosanne Solomon, **Mrs. Maguy Pollak**, **Dr. Lateef Chdeid**, **Father Joseph Lahoud**, **Dr. Marcelle Gerges**, **Mr. Tony Homsy**, **Mr. Kokabani**,



▲ *At Harvard University.*



▲ *Mr. Joseph Chartouni, who is a Fulbright at Harvard University.*



▲ *Dr. Hasham with Father Jim Root and Mrs. Michael in Pittsburgh.*

Mr. Frank Assi and Mr. Joseph Chartouni – an NDU graduate of Architecture who is now a Fulbright scholar at Harvard University. Handouts that covered everything NDU has to offer, the by-laws of the AFNDU, objectives and mission, were distributed to all, together with NDU bags, T-shirts, caps, pen sets, pins and literature. A presentation was given and there were many questions asked and answers given. All were thrilled and surprised to learn more about NDU. During my stay, other prominent persons were recruited – Dr. Gisele Saliba, Mr. Charbel Obeid, Mrs. Fania Al Naccour and Mr. Billy Audi.

The competitive advantage that NDU has in terms of being internationalized was stressed; for example, by offering a Summer Arabic Program package and being extremely aggressive in marketing, promotion and exposure on the local, regional and international scene, NDU is meeting the challenge.

Moreover, Harvard University was visited and meetings with the Provost and the Director of International Programs were scheduled. NDU's programs, centers, activities, affiliations, etc. were presented. NDU's competitive advantage was stressed. The Arabic Program, the Microsoft certification and the NGOs were stressed too and these

raised great interest. A meeting at length was held with Mr. Joseph Chartouni, NDU's Fulbright scholar. Mr. Chartouni was assured that NDU is proud of him and he was encouraged to contact the University for anything. Ways in which he can promote NDU at Harvard were discussed. Joseph stressed the importance of promoting the Fulbright at NDU.

The last destination was Pittsburgh. Dr. Tom Michael and his wife Martha, who are both great advocates of NDU, greeted us there. At Sunday liturgy, Rev. Father Jim Root acknowledged NDU's presence and spoke highly of NDU and encouraged everyone to contribute whatever they could to NDU and to urge young people to visit the institution. He offered the Mass on behalf of the NDU family, faculty and staff.

The Pittsburgh Chapter was officially established and Miss Theresa Michael was appointed as chairperson. Other persons were approached and showed interest in becoming Friends of NDU and they are to be called in for the next meeting. The current members are Dr. Sam Hazo, Mrs. Mary Anne Hazo, Dr. Tom Michael, Mrs. Martha Michael, Ms. Thereza Michael, Dr. Jennifer Unis Sullivan,

Mrs. Vernie Mowad, Mrs. Thereza Ferris-Dukovich and Dr. Angela Zondos.

Contacts were also made in Youngstown and Cleveland, where there is a large Lebanese community, and arrangements were made for a visit in the near future.

The Miami Chapter is another future project and contacts were made there also. Contact was also made with media persons of Lebanese origin and these are willing to cooperate and assist Notre Dame University in its promotion campaign.

NDU and in particular the Admissions Office are totally committed to the enhancement of the University's image and specifically to academic excellence. NDU has established itself as a prominent academic institution of higher education in the region and continues to expand its web of international contacts.

The secret is in our teamwork and *esprit de corps*. I would like to salute the efforts of all concerned and particularly the staff of the Admissions Office; they all continue to demonstrate effectiveness and efficiency.

- o | " The highest reward for a person's toil is not what they get for it, but what they become by it" (John Ruskin).
- o | " It is the mark of an educated mind to be able to entertain a thought without accepting it" (Aristotle).



NDU and Madonna Libraries

Leslie Alter Hage, Director of Libraries, NDU-Louaize

The NDU Libraries are proud to announce that they have initiated a Librarian Exchange Program with the Madonna University Library (Michigan, USA). Miss Antoinette Kattoura, a paraprofessional cataloguing librarian with the NDU Libraries, is the first participant in what is hoped will be an ongoing collaboration between the Madonna University Library and the NDU Libraries.

Building upon existing agreements between Notre Dame University-Louaize and Madonna University, the objective of the Librarian Exchange program is to enhance the sharing of information, knowledge and expertise, and develop better communication and understanding between Lebanese and American librarians. Drawing from the experiences of other librarian exchange programs as documented in the literature, we decided that a short-term (six- to twelve-week) exchange would provide the most benefit for both the librarians selected and the institutions, while keeping the costs in a manageable range.

The NDU Libraries selected Miss Kattoura from a pool of applicants to spend two months, from early

September to the end of October 2005, working at the Madonna University Library in Livonia, Michigan. She also participated in the annual conference of Michigan Library Association from October 26-28, where she had the opportunity to meet and interact with professional librarians and other library staff from all types of libraries throughout Michigan and the surrounding area. Financial support for Miss Kattoura to participate in this exchange was provided by the NDU Libraries, while on-campus housing was provided by Madonna University.

Miss Kattoura had the opportunity to develop a better understanding of how American academic libraries function as well as to improve her spoken English language and presentation skills through daily interaction with Madonna University's librarians, faculty and students. She was actively involved in the daily work of the librarians and other library staff in all areas of the Madonna University Library, in order to gain a broad understanding of the work flow and the variety of services offered for the benefit of library users. In addition, Miss Kattoura was able to share information about Lebanese libraries in general and the NDU

Libraries in particular, through presentations and personal interactions.

In the future, the NDU Libraries look forward to improving the quality of their collections and services by developing additional collaborative agreements and exchange programs with American institutions and hopefully hosting American librarians.



UNESCO-NDU Teaching Workshop

From Monday to Friday, 5th to 9th September, 2005, at the NDU Main Campus, the UNESCO Offices in Beirut and Cairo organised an interactive workshop on an Introduction to Online Teaching and Learning. Collaborating in the workshop were the Arab Fund for Economic and Social Development, the OPEC Fund, the AGFUND and Notre Dame University.

This came within the framework of UNESCO's efforts for building individual and organisational capacities and for bringing together education and technology. The aim was to provide young faculty members from various universities within the Arab region with the knowledge needed to create and teach high-quality, interactive, fully online or Web-enhanced courses.

The workshop opened at 9.30 a.m. on September 5th with the presence of the Lebanese Minister of Education and Higher Learning **Dr. Khaled Kabbani**. After an introduction by **Dr. Abdo El-Qahi** of NDU, **Dr. Ameen Rihani**, NDU Vice-President for Research and Development, outlined the development in education and technology that was so effective for enabling faculty members to meet the needs of students.

NDU President **Father Boutros Tarabay** welcomed the Minister and participants and noted that the conference connoted a gamut of initiatives focusing on the enhancement of teaching and education through the infusion of Information Communication Technologies (ICTs) into the spectrum of education and training sectors. He pointed out that Notre Dame University, realising the importance of technology and its applications, had made substantial progress in upgrading its programmes and assuring high-quality education for its students. Although seemingly easy, shifting the University from the traditional mode of delivery to a

vibrant and interactive pedagogical environment to stimulate learning and critical thinking had been a great challenge. To this end, Notre Dame University had conducted attitudinal research on e-learning and experimented with new styles of pedagogy. Also, the University had established video-conferencing hubs for cross-cultural course teaching with US universities.

Dr. Ramzi Salameh, Director a.i. of the UNESCO Beirut Regional Office, explained that the conference came in the framework of UNESCO efforts through its USEE programme for the Arab region. He was followed by Minister **Khaled Kabanni**, who insisted on the importance of the workshop and pointed out that thought had no limitations whether of kind, geography, politics, constitution or law.

The morning's working session, led by **Iris Stovall**, covered an introduction to "Moodle", an overview of online instruction, its appropriateness, and an introduction aimed at instructors. The first afternoon consisted of a critique on online course by participants and the second a discussion on Moodle site administration led by **Kevin Johnson**.

On Tuesday, **Iris Stovall** and participants concentrated on models of online instruction, quality and online courses, and Moodle course project work. On Wednesday the two guest experts and participants turned their attention to the challenges and benefits of technology, the roles of the instructor, critique of an online course, and Moodle site administration. On Thursday the sessions covered free and open-source software, free software and learning objects, encouraging communications, and Moodle course project work. On Friday the subject was assessing student learning, followed by demonstration of a hands-on project and evaluation of a primer workshop.



▲ UNESCO Workshop

Water Conflict Conference

*In Friends' Hall, NDU main campus, from July 13th to 15th there was a conference held jointly by UNESCO, the Ministry of Energy and Water Resources and the NDU Water, Energy and Environment Research Center (WEERC), in the framework of the UNESCO project From Potential Conflict to Co-operation Potential (PCCP). This Conference, entitled **Conflict Resolution on Water Resources: Training Tailored to the Arab Region**, was in fact a meeting of experts held with the aim of reviewing the PCCP course on conflict prevention and cooperation concerning international water resources, in particular amending and tailoring the existing course in a way adapted to the situation in the Arab region.*



After words of welcome addressed to the participants by **Mr. Suheil Matar**, NDU Director of Public Relations, Professor **Dr. Jon Trondalen**, Chairman of COMPASS, Geneva, and of CESAR, Oslo, declared that there was a constant and increasing demand for water in the region because of the rapid growth of population and the steady social and economic development, all of which was incompatible with the existing natural water resources. Dr. Trondalen stressed that disputes in the region over water were hindering effective use of this resource, as well as fuelling political fires that had already been lit. He further insisted that conciliation and cooperation between countries were prerequisites for sustainable development in the area.

After an address by **Dr. Mohammad Abdulrazzak**, UNESCO Director in Cairo, **Dr. Fady Comair**, Director General of the Ministry of Water and Energy Resources and Director of WEERC, spoke of the Lebanese experience in managing conflicts over water resources. He explained that the negotiations between Lebanon and Syria over sharing the waters of the Orontes and Nahr el-Kabir had been based mainly on two international conventions, the RIO Convention of 1996 and the UN Convention of 1997 on the non-navigational use of international water courses.

Unfortunately, said Dr. Comair, the Hasbani-Wazzani water management and usage was applied only by Lebanon on the basis of the RIO and UN conventions; it was to be hoped that one day Israel would share the vision of cooperation, equitability and reasonable use of trans-boundary waters, particularly in the case of the river Jordan. He pointed out that Lebanon attached great importance to cooperation over the question of water and to finding a permanent solution, for which there must be a forecast concerning supply and demand. Development relied on this equilibrium, particularly for the dry season extending from May to November.

Dr. Comair said that there was a lack of homogeneity in the distribution of resources and that there was also large-scale karsification covering 60% of

Lebanese territory, demanding considerable outlay for treatment.

In the face of this complex situation, the Department of Hydraulic and Electric Resources of the Ministry of Energy and Water had set out a ten-year strategy plan (2001-2010) with the following aims:

- | *On the one hand to ensure additional water resources by storing surface water in dams as well as by recharging aquifers,*
- | *On the other hand to treat waste water and re-use it by global integrated water management.*



Health Issues Workshop

On Monday, October 3rd, 2005, a nutrition workshop was held in Friends' Hall, Main Campus, under the patronage of His Excellency Health Minister Dr. Mohammad Khalifeh. Its title was Health Issues: Obesity, Diabetes, Heart Disease and Food Safety, and was the result of coordination between FAO, WHO, UNIDO, the Ministry of Public Health, the Ministry of the Environment, the Ministry of Agriculture, the Lebanese Society of Endocrinology and Diabetes, and Hayek Hospital. The event was organised by the Water, Energy and Environment Research Center (WEERC) of NDU.

The main honoured guest speaker was **Dr. Esther Myers** from the American Diabetes Association (ADA), talking on International Diabetes Outcome Study through a Dietetics Practice-based Research Network. Dr. Myers referred to the collection of data on outcomes from patients with Type 2 diabetes as part of the joint research project between NDU and the ADA. The ADA selected **Dr. Najat Yahia** of NDU to be their national research coordinator in Lebanon in collaboration with distinguished Lebanese dieticians, in particular **Miss Maya Khoury**, **Miss Tania Salloum** and **Miss Rita Younes** at Saint George's Hospital University Medical Center, **Miss Nada El-Saad** at Rizk Clinic-Hospital and **Miss Randa Chlala** at Notre Dame de Secours University Hospital. The importance of such a project lies in the increase in the incidence of Type 2 diabetes in Lebanon.

As food safety is nowadays a strategic priority worldwide due to economic globalisation, freedom of exchange and the expanding use of technology with increase of food production, food safety issues were also addressed in this workshop. It is estimated that food-borne disease causes 76 million cases of illness, 325,000 hospitalisations and 5,000 deaths each year in the United States alone. It was reported that worldwide in the year 2000 2.1 million people died from diarrhoeal diseases, largely due to contaminated food and drinking-water. In this sense, water quality plays a key role in keeping people healthy and

public health education reduces risk of heart disease, obesity and diabetes.

Participants were welcomed by NDU Public Relations Director **Mr. Suheil Matar** and addressed by the NDU President **Father Walid Moussa**. Speeches followed by **Dr. Jawad Mahjour**, WHO representative in Lebanon, **Dr. Cheik Sakho**, Resident Representative of UNIDO in Lebanon, Syria and Jordan, **H.E. Dr. Abdessalam Ould Ahmed**, FAO Representative in Lebanon, **H.E. Mr. Yaacoub Sarraf**, Minister of the Environment, and **H.E. Dr. Mohammad Khalifeh**, Minister of Public Health.



Session 1 concerned nutrition-related disease, in particular obesity, diabetes and heart disease. It was presided by **Dr. Sami Raychouni** representing **Dr. Mario Aoun**, respectively Vice-President and President of the Order of Medical Doctors, with **Dr. Georges Hayek**, PDG of Hayek Hospital, as Reporter. **Dr. Georges Saade**, Director of the WHO Program of Non-Communicable Diseases in Lebanon, spoke on Non-Communicable Diseases, **Dr. Najat Yahia**, Assistant Professor NDU and WEERC/NDU Researcher, spoke on Obesity Assessment and Management, **Dr. Esther Myers**, Director of Research, ADA, spoke on the Dietary Management of Diabetes Patients (ADA Protocol), and **Dr. Michael Naser**, Professor of Cardiology, American University

Medical Center, spoke on Heart Disease Prevalence and Management.

After mid-morning coffee break, **Session 2** dealt with nutritional issues in food safety. It was presided by **H.E. Dr. Adel Cortas**, former Minister of Agriculture and FAO consultant, with **Dr. Fadi Comair**, Director of WEERC/NDU, as Reporter. The subject of Food Safety was dealt with by **Mrs. Nohal Al-Homsi**, WHO Lebanon Coordinator of Environmental Health Projects and Food Safety, Risk Analysis in Food Safety in Lebanon by **Dr. Hussein Dib**, Professor of Science at the Lebanese University, Food Safety National Project Manager, UNIDO, the Contribution of the Ministry of the Environment to Food Safety by **Dr. Nada Sabra**, Project Manager of

the UNIDO Methyl Bromide Alternative Project, Ministry of the Environment, and New Food Law and International Standards (HACCP, GMP) by **Mr. Farid Karam**, Head of Sanitary Engineering Service, Ministry of Public Health.

Questions and discussion followed and the workshop was closed by recommendations from the first session presented by **Dr. Najat Yahia** and ones from the second session presented by **Dr. Fadi Comair**. Participants were then invited to lunch in the NDU Restaurant.

Beirut Water Week

Coming for the first time to West Asia, the Mediterranean and Lebanon, the *Water Week* was held in Beirut from 14th to 17th November, 2005, under the initiative of the Ministry of Water and Energy in the persons of **Minister Mohammad Fneich** and Director General of Hydraulic and Electric Resources **Dr. Fadi Comair**, also Director of WEERC at NDU. Organisations involved were the UN through

ESCWA, the European Union through MED EUWI/GWP, the European Union Commission through its Beirut delegation and the above-mentioned Lebanese ministry. Thirty countries from West Asia, the Mediterranean and Europe were represented by two hundred delegates, including many senior international figures, of whom 110 were foreign nationals.



The aims were to inform about sustainable development and water reservation policies, to hold dialogue on management by public water authorities, to compare solutions adopted by various countries, to educate the young and raise the awareness of teachers, and to issue recommendations appropriate to the Water Decade, so named by UN Secretary General Kofi Annan.

On November 14th, the Water Week culminated with the inauguration of the Water, Energy and Environment Research Center, the headquarters of which are at Notre Dame University-Louaize, by the President of Lebanon General Emil Lahoud.

This was followed by an exchange of ideas between the President and European Parliamentarians from COMPSUD. The latter also visited H.E. Mohammad Fneich, Deputy Speaker of Parliament H.E. Farid Makari, H.E. Prime Minister Fouad Siniora and H.E. Mohammed Kabbani, Head of the Parliamentary Commission for Water, Energy and Public Works.

On November 17 there were presentations and debates at CREEN (Water and Environment Regional Center, USJ-ESIB) on the theme *Ground Water in Lebanon – Towards an Information*

System for Sustainable Management of Resources.

MEDIES (Mediterranean Education Initiative for Environment and Sustainability) is a component of the European Water Initiative. It aims at raising awareness particularly among the young. Five workshops for training, involving forty teachers, were organised at WEERC, NDU, on Thursday, November 17th.

The official opening of the WEERC took place under the auspices of President Lahoud at WEERC-NDU at 4 p.m. on November 14th at the start of the Water Week. After a welcome by NDU President Father Walid Moussa, there were speeches by Dr. Fadi Comair, H.E. Abdessalam Ould Ahmed, FAO representative in Lebanon, and the minister H.E. Mohammed Fneich. The WEERC 2005 Annual Award of Excellency was presented to Professor Michael Scoullou, Chairman Global Water Partnership. Members of the European Parliament then met President of Lebanon Emil Lahoud.

This was followed by the launching of MEDIES in Lebanon, when there were speeches by Minister of Education H.E. Khaled Kabbani, UNESCO Beirut Regional Office Director Ramzi Salame, and Council of Europe Parliamentary Assembly Vice President Ms. Elsa Papadimitriou, to mention only a few.

At the workshop at WEERC, NDU, on Wednesday 16th November, Ambassador Patrick Renault, head of the Delegation in Lebanon of the European Commission, said in short and very pointed sentences that the water situation was critical as regards the future. The countries south of the

Mediterranean would be in a very grave state affecting the sanitary, economic and consequently political fields. He added that in its participation in the necessary effort Europe was giving Lebanon 5 million euros in 2006.

Mr. Nicholas Mentzaris, representing the Greek Government, pointed out that Greece had been acting as the lead country in the Mediterranean Component of the EU Water Initiative since 2002. The day's workshop was a unique opportunity to identify the state-of-play in Lebanon and the meeting could also be considered as the Inaugural Meeting of the so-called "Country Dialogues" Process for Mediterranean countries in general and for Lebanon in particular.

In his Opening Ceremony speech, Minister Mohammad Fneich, represented by Dr. Fadi Comair, took the opportunity to highlight the importance of the European Union Water Initiative Mediterranean Component. He declared that Lebanon had been following this closely for the sake of implementing Integrated Water Resources Management through the process implemented by the Greek Government and Professor Michael Scoullou.

Ms. Sylvie Detoc, DG Environment for the European Commission, spoke in particular of the importance of water for drinking purposes and for the fight against poverty and the improvement of health, not forgetting agriculture.

Further sessions followed, all indicative of the role now being played by the Water, Energy and Environment Research Center of NDU.

Emigration and Remittances: The Situation in Lebanon

In response to an invitation from the Istituto Studi Mediterranei (ISM) of the Università della Svizzera Italiana to a conference held 30th September- 1st October, 2005, Ms Guita Hourani, Associate Director of the Lebanese Emigration Research Center of NDU, gave a presentation about the current Lebanese emigration and about the volume and importance for the Lebanese economy of the remittances sent home by Lebanese emigrants. The forum was held in Lugano in cooperation with the host city and the city of Milan.



The forum was a response to the phenomenon of increased migration, one demanding correlation between migration and security. International migration has been slated to top the agenda of international organisations and of most countries around the world. In its official invitation, the ISM positioned the context of its forum, stating that "international migrations play an ever greater role in the life of contemporary societies. Migratory flows resulting from political, economic and social pressures are a serious challenge for the countries of origin as well as for the receiving countries. They present dangers but also offer opportunities."

The forum called upon places in the Mediterranean Basin such as the Great Region of Casablanca and the cities of Athens, Valencia, Barcelona and Milan among others to share their experiences with the conferees and to present their views and their action in response to the imperative issues of integration, security and quality of life.

Several international organisations, government agencies and administrations, and universities



▲ Guita Hourani at Lugano, fifth from the left, front row.

were represented by prominent officials. These included the Syndicate of the City of Lugano, the Syndicate of the City of Milan, the Institutional Department of the Ticino canton, the *Forum pour l'Intégration des Migrants et des Migrants*, the Directorate of Development and Cooperation (DSC), and the *Haut Conseil à l'Intégration* of the French government. Other participants included a former under-secretary of the State Department of the United States of America, the Mediterranean Representative of the International Organisation of Migration (IOM) and the universities of Genoa, Istanbul, Bulgaria, Siena, Milan, Sofia and San Diego, California.

The forum was a useful platform for comparing experiences, strategies and actions concerning migration, integration, security and quality of life between cities from the countries of emigration and those of the countries of immigration.

Director Dr. Athanasios Moulakis and all the staff of the ISM assured an environment of dialogue, ►►

Lebanese Migrants In Brazil:
Exhibition and an Annotated Bibliography

Lebanese Emigration Research Center (LERC)
Notre Dame University Press-Lebanon, December 20th, 2005

◀◀ openness and amiability, all of which made this event a success.

Ms. Hourani's presentation illustrated the volume, profile, characteristics, geographical distribution and level of education of the Lebanese emigrants. She also showed the volume of remittances received in Lebanon through formal channels and their importance to the economy of Lebanon and to household resources and expenditure. Ms. Hourani discussed the socio-political impact of emigration on Lebanon as well as the effect of remittances on the lives of their recipients and on the country as a whole.

Her audience were astonished to learn that around nine hundred thousand Lebanese left the country between 1975 and 2002 and that of these 45% left after the cessation of armed conflict, between 1991 and 2002. They were even more surprised to learn that Lebanon receives an average of \$1.6 billion in remittances on a yearly basis.

Ms. Hourani made several contacts with different institutions and individuals for future collaboration on the subject of migration in the Mediterranean region.



▲ Members of the audience buying the book.

▲ Pharaon touring the exhibition ▲



In celebration of Migrant's Day (December 18), the Lebanese Emigration Research Center at Notre Dame University, Lebanon, inaugurated an *Exhibition on Lebanese Migrants in Brazil* under the auspices of Prime Minister Fuad Siniora, represented by Minister of State Michel Pharaon. This was in conjunction with the signing by Roberto Khatlab of his book *Lebanese Migrants in Brazil: An Annotated Bibliography*, published by NDU Press and LERC. The opening brought together a number of prominent Brazilian and Lebanese figures and the authorities of NDU.

The exhibition includes photos of Lebanese migrants in Brazil from the collection of Mr. Roberto Khatlab, with copies of letters from the Lebanese National Archives exchanged between migrants and President Shamoun of

Lebanon, mostly from after his visit to Brazil. It also displays some of the earliest Lebanese newspapers published in Brazil and possessions of Lebanese migrants in Brazil.

Following welcoming speeches and an address by the Minister, NDU surprised the author with an Acknowledgment Award presented to him by NDU's President Fr. Walid Moussa and Minister Pharaon "for his devotion to the study of Lebanese migration in Brazil and Lebanon". The author also received a letter from His Excellency Luiz Inácio Lula da Silva, President of Brazil, wishing him success for the exhibition and the book.

Then after the cutting of the ribbon, Minister Pharaon toured the exhibition and Mr. Khatlab signed his book.



▲ Rev. Fr. Walid Moussa, and H.E. Minister Pharaon presenting the award to Mr. Roberto Khatlab.

▼ The welcoming address of Dr. Eugene Sensenig-Dabbous.



Diabetes Awareness Day



On Tuesday, November 29, 2005, a nutrition conference was held in Friends' Hall, Main Campus, Notre Dame University. The opening of the event was under the patronage of Rev. Father Walid Moussa, President of NDU. The title of the Nutrition conference was *Diabetes Awareness*, and was the result of coordination between the World Health Organization (WHO), the Ministry of Public Health, the Lebanese Society of Endocrinology and Diabetes, and Hayek Hospital. The event was organized by Nutrition students at NDU under the supervision of Dr. Najat Yahia.

The honored guest speakers were Dr. Sami Azar, Professor of Medicine, American University of Beirut Medical Center, President of The Lebanese Society of Endocrinology, Diabetes and Lipids, Dr. Georges Saade, Director of the WHO Program for Non-Communicable Diseases in Lebanon, Ministry of Health, Dr. George Badr, Professor of Endocrinology, Hayek Hospital, Mrs. Nada El-Saad, Head of Dietary Department, Rizk Clinic-Hospital, and Miss Randa Chlala, Head of the Dietary Department, Notre Dame de Secours University Hospital.

Participants were welcomed by NDU President Reverend Father Walid Moussa. He pointed out that being healthy is the most solid starting point for fighting disease and awareness of illness is imperative to achieve health. Good health is an advantage that people should enjoy and it is a gift to be taken care of, to be protected and defended. Therefore, health demands time and attention devoted to it. In

this sense, people who have no time for their health today may have no health for their future time. Father Moussa laid stress on health protection, as it is much easier to keep healthy than to restore health after illness. Prevention of disease is much more effective than intervention. He ended his speech with a blessing and best wishes for a successful day and left the audience with the words of Hippocrates, the Father of Medicine, "Let your food be your medicine."



▲ Dr. George Badr, Fr. Walid Moussa and Dr. Najat Yahia

Dr. Najat Yahia welcomed the guest speakers and explained the main goal of this day, which was to raise awareness about the seriousness of diabetes, since an individual can have diabetes without even knowing it, and to offer an opportunity for people to assess their risk. Educational awareness for diabetes is the best prevention.

Session 1 concerned diabetes classification, pathophysiology, diagnosis and treatment. Dr. Sami Azar defined the term diabetes as covering a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both. Chronic hyperglycemia is associated with long-term damage, dysfunction, and



failure of various organs (eyes, kidneys, nerves, heart and blood vessels). He explained that diabetes could be divided into several distinct subtypes on the basis of genetics, symptoms, and the underlying disease pathology. Categories of diabetes and impaired glucose tolerance include type 1 diabetes, type 2 diabetes, gestational diabetes, prediabetes and other less common types. Type 1 affects 5 % to 10% of people with diabetes. Onset is generally before 30 years of age and individuals with type 1 have a genetic predisposition. Type 2 diabetes affects 90 to 95% of cases of diabetes. Risk factors for type 2 diabetes are age (> 45 years), genetic predisposition (family history or ethnic background), high calorie intake, obesity, and sedentary lifestyle. Dr. Azar pointed out that diabetes is a rapidly increasing public health concern worldwide and future prevalence rates are expected to increase dramatically. In 2003, it was estimated that approximately

190 million people, or 6.3% of the population, have diabetes and that the prevalence of diabetes will increase by 72% (324 million) by year 2025. Dr. Georges Badr talked about gestational diabetes. Gestational diabetes is defined as glucose intolerance that is first diagnosed during pregnancy and it is diagnosed using a 3-hour, 100 g oral glucose tolerance test (OGTT). High-risk individuals should be tested as early as possible and treated to prevent complications.

Dr. Georges Saade spoke on primary and secondary prevention of diabetes and stressed the importance of lifestyle changes. He pointed out that diabetes is one of the most costly and burdensome chronic diseases of our time and is a condition that is increasing in epidemic proportions throughout the world. Dr. Saade showed that there is now substantial evidence that type 2 diabetes can be prevented or delayed. His public health message to health care professionals was to encourage individual behavior lifestyle changes for ensuring a healthy life.

Session 2 dealt with nutritional issues in diabetes management. Dr. Najat Yahia spoke on medical nutrition therapy (MNT) of diabetic patients, showing that MNT is the clinical application of the Nutrition Care Process. which always involves a

comprehensive assessment, individualized care, monitoring and evaluation of the individual treatment goal. Diabetes management should be based on a comprehensive nutrition assessment, which includes the individual's self-care treatment plan and lifestyle modification. She also pointed to the Diabetic Nutrient Recommendations as presented by the American Dietetic Association.

Mrs. Nada El-Saad talked on diabetic meal planning. She pointed out that psychosocial and behavioral factors greatly affect the achievement of diabetes self-management treatment goals and the dietetic professionals should assess the individual's willingness and readiness to change. She stressed that behavioral change therapy, motivational interviewing and teaching materials appropriate to the individual's learning capacity together form a successful counseling and care plan.

Miss Randa Chlala spoke on healthy recipes and recipe modification.

The conference was closed by free blood glucose testing by the ABBOT representative.

Participants were invited to open the food fair prepared by NDU Nutrition students and other sponsors, where healthy food suitable for diabetic patients was served.



From Social and Behavioral Sciences

A Visit to Roumieh

After receiving clearance from the appropriate NDU authorities, Senior Lecturer **George Hajjar** took his *Psychology of Deviance* class to visit the correctional facility at Roumieh. Prior to the actual visit, Correctional Attorney **Elia Hajj** briefed the class about the details of what they were going to see and do. One of the students, **Ms. Pia Zeinoun**, gave valuable assistance to Mr. Hajjar in arranging the scheduled visit to Roumieh.

This took place during the month of May of the Spring semester of the academic year 2004-2005. The students took with them some supplies that were to be donated to inmates in need.

The students had an opportunity to visit nearly all the premises of the prison and so obtain a practical and realistic understanding of prison life such as it is in Lebanon. The students were pleasantly surprised at the very good behaviour of the inmates during their tour of the facility. They were able to observe some of the inadequacies of prison

life there due, according to Attorney Hajj, to poor funding. They were also interested to learn that some inmates do in fact enjoy access to recreational activities, a small library, a carpentry shop, work in the kitchen, and so on.

The students came away from their visit with the satisfaction that they had had a real-life experience, both sobering and yet humanising. Seeing the real face of the correctional facility revealed to the class both important aspects of deviance and the realities of correctional life.

Visit to the University of Utah

Mr. George Hajjar, Senior Lecturer in the NDU Faculty of Humanities as previously stated, was invited to present a paper at the conference on *Middle East and Central Asia Politics, Economics and Society* held by the University of Utah, USA, from 8th to 10th September, 2005.



The conference featured over one hundred Middle East scholars from around the world. Mr. Hajjar's presentation was delivered on September 10th and was entitled *An Analysis of Christian-Muslim Relations in Contemporary Lebanon*. Moderator **John Francis** of the University of Utah half-jokingly proclaimed, "This is the most important panel of the Conference." The Discussant, **Frederick Quinn**, an official of the US State Department, commented that Mr. Hajjar's presentation was "the stuff that a good book is made of." Afterwards, Mr. Hajjar was asked for permission for his talk to appear in a new publication to be called *Democracy at Large*.

Advertising Club and AAA

On Friday December 2nd, 2005, the NDU Advertising Club and the Advertising Agencies Association (AAA), the latter represented by its General Secretary Mr. Kamal Darouni (also NDU Assistant Professor), held a seminar entitled Meet the Guru in Advertising. The event marked the launching of the AAA Students League at NDU before its extension to all other universities in Lebanon. It was attended by students in Advertising, Faculty members, Father Boulos Wehbe (SAO), and Mr. Dany Karam and Mr. Omar Nasreddine, members of the AAA Executive Committee. It should be noted here that NDU is a university accredited by the IAA.

NDU students Melhem Rechdan and Elie Zgheib were appointed as President and Vice President respectively of the AAA Student League, and students from LAU, the Lebanese University, AUST and Holy Spirit-Kaslik were approved as executive committee members with the consent of the AAA. Advertising Club President Mr. Elie Zgheib may be contacted at 03-710563.



○ 03-710563

Mr. Darouni announced that the Advertising Agencies Association had accepted the NDU Advertising Club for developing the AAA Student League and for students being able to send their CVs to the Website, on the strength of which all advertising agencies will help them in finding employment, obtaining internships or participating in workshops. Mr. Dany Karam presented the template of the Website and showed students how to interact with it.

Mr. Kamal Darouni spoke about the "fall" of Lebanon and the rise of Dubai, pointing however to the leading role of Lebanese advertising or associated companies. An AAA survey conducted on behalf of the British Council showed that 71% of the income of film production houses came from export, while 72% of the income of advertising agencies came from the domestic market.

Mr. Omar Nasreddine dealt with brand equity and advertising culture seen from the creative perspective. He showed some commercials and described the situation of each in terms of image, acceptance, loyalty, positioning and continuity.

loyalty

acceptance continuity

As part of its cultural framework series, for a remarkable evening on Friday, June 3rd, 2005, NDU-NLC hosted Henry Zgheib, a refined literary journalist, a first-class cultural critic, and most prominently a brilliant writer and poet.

Henry Zgheib, A Poet with Sagacity

On his arrival at NDU-North Lebanon campus, Mr. Zgheib roamed the premises, paying particular attention to the architecture of the main building and its harmonious interior design; he expressed awareness of the yet modest scale but grandiose taste that emphasized an overwhelming atmosphere.

Henry Zgheib brought joy to his listeners by declaiming magnificent poetry read with extreme care so as not to minimize its value to the mind or its essence. The poet emphasized the impact of poetry in ancient and contemporary societies; he even mentioned great presidents inviting famous poets appointed to impact their peoples for authentic glory. He told stories from the heart and made sure his audience listened and grasped well. Henry Zgheib's audience interacted enthusiastically, a fact which made this thoroughly enjoyable evening even more memorable.

It was an evening of sensations that were intermingled with logic and grammatical illustrations, which when properly used not only beautify but also relay the most thrilling sensational imagery in poetry. The audience agreed that Henry Zgheib is beyond all possible doubt not only a poet but also a cultural reference.

The success of this event at NDU-NLC made certain that other such encounters will follow, as the university strives for the advancement not only of professional formation, but also of the students' general cultural development, providing them with broader intellectual assets.

○ | *Mr. Edgar Merheb-Harb and Mrs. Suzanne Dandan, Public Relations Dept., NDU/NLC.*

Grafik Trafik: End of Year *Exhibition* for Graphic Design Senior students, NLC

Grafik Trafik was the title of the Senior Year exhibition, Graphic Design Department, FAAD. The event was held on Wednesday, July 6, 2005 at 6 p.m. at LAS SALINAS resort, Anfeh. Mr. Edgar Harb, Public Relations at NLC, welcomed all who were invited and attending, and was followed by Ms Diane Mikhael, coordinator of Graphic Design major at NLC, who delivered a short speech; finally, graduate student Cynthia Sammour launched the theme of the exhibition.

The aim of the exhibition in the first place was to promote the graduate students' work among professionals in the field of Graphic Design. Furthermore, it was planned to have the exhibition outside the campus to enhance the presence of Notre Dame University and the Design department, FAAD, specifically in the North market.

The students' projects shown tackled different themes dealt with during the last three years of the major, such as awareness campaigns, corporate identities, animations and motion graphics for TV channels, local and international competitions, etc..

During the event, students had an opportunity to explain their work and to interact with the audience, who came from different sectors, such as education, government, the professions and the media, not forgetting parents and friends.

Among the audience who attended the opening of the exhibition were the President of El Mina municipality Mr. Abdel Kader Alameddine, members of parliament and government such as Minister Mohamad El Safadi, representatives from agencies and well-known newspapers, etc..

Faculty members and students from FAAD main campus were present to share with colleagues and students this special event.



○ | Grafik Trafik was the first exhibition of its kind in NLC.

○ | We hope to continue with such activities in the near future in order to make known our identity and to create an opportunity for our students to communicate ideas!

○ | **Diane Mikhael,**
FAAD coordinator, NLC.

....Lebanese astronomy, that is!

And a story of origins too or a rebirth to say the least.

Dr. Roger Hajjar NDU and Astronomy

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It started in 1997 when I was first invited by Dr. Georges Eid, now VP for Academic Affairs, to join the faculty as a part-timer first and finally as a full timer. I was a fresh graduate then. I actually took a week off during the Fall semester of that year to travel to Canada for my thesis defense.

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My first duties were to teach physics courses for non-physics majors. I was essentially a teacher of service courses, to put it simply. In February 98, I became a full-timer at NDU but was, during that semester, overloaded with work, being a newcomer with much demand from two campuses. The Shouf was not even beginning to be dreamt of yet!

Nature has it that a great opportunity – a God-sent gift? – happened in 1999: the famous, or should I say dreaded, eclipse of August 11. The NDU Astronomy Club had been created in November 98 and this was its first great activity! The Club participated in Founder's Day for that year, 1999. We built a home-made planetarium, a 3m hemispherical metallic structure that we completely covered, from the inside, with white polystyrene panels! A 13.5-hours job for four persons, destroyed at night with cigarette holes from an unknown wise guy!

Here comes August '99 and a trip to Syria, to the extreme north-eastern tip of its map, to Ain Diwar. LBCI had kindly agreed to carry our telescopes with them. And there we watched one and half minutes of totality...never to be forgotten. The Club grew stronger from that experience.

During that same period, I discovered a UN and ESA (European Space Agency) sponsored professional activity whose aim was – and still is – to offer a forum for Third World astronomers to interact with astronomers from industrialized countries to share research experience. This activity came to be known as the UN/ESA Workshop in Basic Space Sciences to be held in November in the United Arab Emirates. Through these forums, I had the opportunity to meet astronomy activists and professionals from around the Arab World and discovered that some were working hard to expand a pan-Arab astronomy organization

known today as the Arab Union for Astronomy and Space Sciences (AUASS) with its headquarters in Amman, Jordan. I also met an early proponent of astronomy in Syria, a now retired engineer, an outspoken and daring personality, Mr. Fayez Foq-EI-Adha (فايز فوق العادة). That was the start of my participation in AUASS. Through these workshops, I also met one very influential person, whose contribution to Lebanese astronomy is invaluable. He was a French astronomer from Observatoire Midi-Pyrennées, François Querci, who was born and raised in Tunis. He kept deep inside a fondness for the Arab World. This led him in the early nineties to propose a project that came to be known as NORT (Network of

Oriental Robotic Telescope). This project planned to install a series of automatic telescopes around the Tropic of Cancer whose sole purpose was the study of variable phenomena in stars. It was to cover a wide longitude range on or near that tropic. It was the start of his crusade (hum! Not a good term when talking about the Arab World) to convince people in our region of the world to be inspired by old Arab astronomy and to work for its revival! Was it people or governments? An unnecessary debate today!

François Querci is a dear friend and an invaluable support in the quest of the Task Force for Astronomy & Astrophysics to start programs of development of astronomy in Lebanon. The Task Force for Astronomy & Astrophysics was created in June 2004 by a

decision of the Lebanese National Council for Scientific Research (LNCSR), which invited a number of university professors who are either astronomers or interested in development of astronomy in Lebanon. NDU is represented by two faculty members, **Dr. Bassem Sabra** and myself. François' role started, for me at least, in 2000. In fact, he had visited Lebanon a long time before that, around 1992. A visit that led to a scholarship for a Lebanese University student from the North to complete a Ph.D. in astronomy. **Jamal Bittar** is now an LU and USJ professor and an active member of the Task Force. I met François through the UN/ESA workshop held in Al AIBayt University in Mafraq, Jordan. We met again in May 2000, when he visited Lebanon on an invitation by the LNCSR. A series of meetings was held there in the presence of Lebanese astronomers, some Deans of Science Faculties and other scientists with possible interest in the development of Space Sciences *chez nous*. This produced a first basic

document identifying a plan to develop astronomy through the preparation of the creation of a National Observatory equipped with a 1-m telescope. The report, drafted, corrected and finalized on an NDU computer, was submitted to **Dr. Mouin Hamze**, Secretary General of the LNCSR in January 2001. Resident Lebanese astronomers/astrophysicists were only three at the time. I was the only observer, that is to say the only astronomer who went to observatories and used instruments to collect data. The other two, **Drs. Mounib El-Eid** and **Jihad Touma**, are theoreticians who rely on observational data. **Jamal Bittar** was still completing his studies in Toulouse, France, under the care of François Querci. He came back in 2001 after successfully defending his thesis.

At NDU, the astronomy club was busy organizing outings to lunar and solar eclipses and Mars opposition and trips to other places. Our next trip will hopefully be to Jordan this summer; an occasion to meet the extremely active Jordanian Astronomical Society and

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▲ The NDU 14-inch telescope preparing to observe at Ouyoun el-Simane.

▼ Explanations at 2000 meters at Ouyoun el-Simane.



discover new horizons. We organized a series of evening talks we affectionately called AstroPizza since we always ended them with a Pizza fiesta! We also organized Observing Night, when new members were introduced by old members to the night sky. The workhorses of these events were an old-faithful 4.5-inch Newtonian I purchased and brought back in 1999 from Canada, in time for the eclipse, a 10-inch Newtonian built by **Dr. Ramez Maalouf** and modified by my club members, and a 70-mm refractor from **Dr. Michel Kreidy**. I also bought a solar filter still being used by Astronomy students for their sunspots projects. Astronomy students? Well, yes, NDU is now the only University offering *two* astronomy courses. One of them, AST 201, is a general course offered to all students of the University. The other, AST 210, is an introduction to astrophysics for physics students. It can be taken as a free elective by other students provided they have a solid background in sciences, mostly physics and maths... sorry for the rest! But you can still enjoy astronomy in AST 201! That reminds me of another first: NDU is the only university in Lebanon having a

mandatory astrophysics course in its undergraduate physics program!

However, our NDU club is not a *first*, it is a *second*! Clubs started with two seasoned amateurs in Lebanon, **Mr. Adnan Tayyara** and **Ihsan Hafez**, who established a club at the Beirut Arab University and convinced their administration to build a small observatory within the walls of their new campus in Debbiyeh, Shouf. Today, this is the only functional observatory in Lebanon, but the next is fast approaching. Most recently, astronomy clubs are beginning to burgeon almost everywhere, thanks to the Lebanese astronomers, to the NDU club members and the fascination exerted by astronomy. Let me list the ones I know: the *Faculté des Sciences* of USJ has now its club (1 year old). The *Faculté des Sciences II* of UL is starting one, AUT students formed a small club a few months ago, and some students at the University of Balamand are organizing themselves to start their own activities. I should not forget the only school club I know, at St. Joseph's School. This is an old club founded by students who ended up at NDU, **Ranya** and **Hanane Bechara**.

What were the pros doing during that time? Two years after the report, upon a third visit by François Querci, we decided to formally start working on the plan outlined in that founding document. A proposal was submitted to the LNCSR for what we call a site-testing project, a research project to quantify the quality of sites on Lebanese mountains and so to identify the possible location of a future observatory. The budget for such a project, complete with snowsuits, a 4x4 to carry observers to remote locations, and small housing units is beyond the capabilities of the LNCSR alone. It was then decided, in agreement with the Council, to work towards the creation of a consortium of institutions – universities, councils – whose purpose would be to oversee the funding and implementation of the project. A first step was completed with the creation of the Task Force for Astronomy and Astrophysics, now the official advisory body at the LNCSR for everything astronomical!

In the meantime, another web of interactions was slowly being created. Ranya Bechara, now an NDU graduate in biology, ended up in my class of physics for Life Sciences. It happens that her father is a professor, and a very dynamic researcher, at the Lebanese University. One day, as I was sitting in my office, the phone



▲ The group of the Summer School at Piste Wardeh.

rang. The person on the other end of the line introduced himself as **Dr. Joseph Bechara**. This was the start of an extremely fruitful relationship. Thanks to him, I have been supervising for three years now senior projects of graduating students from the Lebanese University. This brings manpower to ideas that require time and effort. I have discovered in Dr. Bechara an extremely motivating and, by the same token, motivated individual, eager to see science burgeoning in Lebanon. He is a person whose dream is to create an interactive web of physicists collaborating and stimulating each other for the sake of the scientific development of the nation! This meant a lot to me. I came back from Canada with a dream, that of seeing one day a white dome standing on one of the peaks of the Lebanese mountains. I can proudly say that, thanks to Dr. Bechara, we now have a unique inter-university collaboration on substantial issues. Dr. Bechara is a member of the Task Force! This is obvious, isn't it? NDU astronomers are now supervising two senior projects with Dr. Bechara. One of them concerns the hot gas pervading the huge spaces between galaxies, the so-called WHIM. The other one studies light pollution in Lebanon, Syria and Jordan. We might also be supervising two

DEA students (equivalent to M.Sc.) for their thesis work...in astronomy! And that is not all. **Dr. Mahmoud Korek**, Director of the Physics Department at BAU, has kindly placed their observatory at our disposal to try to start, in collaboration with him and others, some undergraduate research projects. The Task Force obviously includes Dr. Korek.

In January 2004, an invitation was extended to the LNCSR for a Syrian-Lebanese-Jordanian joint meeting to discuss the possibility of establishing a regional observatory. I was elected secretary of the committee. Subsequent meetings were held in Damascus, Beirut and Amman. The early work done by Lebanese astronomers served as the basis for this joint work group. It is refreshing to note that, despite all our national problems, we are still leaders in our region. We are the driving force behind the rise of astronomy in our part of the world and we intend to remain that way!

Early last Fall, thanks to **Fr. Roger Chickri**, NDU decided to purchase a telescope. Based on our recommendation (Bassem's and mine), NDU purchased a 14-inch telescope. It also purchased a CCD camera along with appropriate scientific filters to allow for research projects. If you happen to pass by the physics lab, you will find in a small suitcase on one of its benches the only science filters of the Arab Middle-East! These instruments are the ones recommended by the Task Force for the site-testing campaigns. USJ also purchased a similar apparatus. The telescope was received on June 30, and the CCD and accessories on August 2, one month before the start of the Summer School of Astronomy. Last fall too, Dr. Bassem Sabra joined NDU as a full-time faculty member in the Department of Sciences. We are now a mini-astronomy group, the only astronomy group in Lebanon!

Early September is the time of the year when NDU rests between the end of one academic year and the start of

▼ *Closing ceremony of the Summer School.*



another one, between Summer and Fall. Not this time! The Faculty of Natural and Applied Sciences and the Computer Center were busy from the 5th to the 15th of September. Twenty-seven Lebanese students of physics and engineering from NDU, LU, AUB and USJ along with 10 students from Syria and Jordan met at NDU for an intensive Summer School on Astronomy, a school whose idea started with the decision to purchase the telescopes. On the 12th of March, when the Task Force formally decided to start organizing it, we were still waiting for the instruments on which we were going to train the students. When Bassem and I initiated contacts with Dr. Jean Fares, Dean of the Faculty, we were, in a way, taking a gamble since the telescopes had still not been shipped from the US! We won the Jackpot!

NDU was an excellent setting for the school. It possessed all the necessary ingredients: a dorm to host students, a computer center equipped with all the hardware and software needed and, obviously, lecture halls, photocopying services, lounges, etc., but, first and foremost, administrators who believed in our project and provided all the support needed. Dr. Jean Fares and all the staff of the Faculty gave us access to all the classrooms and facilities of the Faculty. Vicky, Danielle and Sana'a made our work run smoothly. Mr. Fawzi Baroud and the staff of the Computer Center helped with all our requests even when this required opening the center till 8:00 p.m. although the regular opening hours end at 3:00 p.m.! Warm thanks are due to Fr. Roger Chikri, who stitched all the parts together to make sure that NDU offered the best hospitality to its

guests, to the point that he answered our calls on Sundays to help open a door!

Organized by the Task Force with the Financial Support of the LCNSR, NDU, the French Embassy in Lebanon and Banque Audi, the Summer School, the first in the Arab Middle East, formed all 37 participants to the observational techniques of astronomy, using the recently acquired NDU equipment. Ten instructors from France, Lebanon and Jordan provided the expert lectures and support. Drs. Marc Sarazin, Frederic Paletou, Torsten Boehm and, of course, François Querci, were the four musketeers of the school. Drs. Mashhoor Wardat and Hanna Sabat accompanied the Jordanian delegation and contributed their expertise. Bassem, Jamal Bittar, Mounib El-Eid and I made the local ingredients of that team.

Ten days were spent bustling around, making sure that all enjoyed their time and came out with a solid baggage in

M

astrophysics. The School produced a solid team, eager to tackle the challenge of site testing. We are now at a crossroad. We have the instruments, the team of students, and the experts.

Almost eight years ago, I came back with a dream...A white dome on a Lebanese mountain. It is now soothing to see many, many others sharing the same dream and working towards its realization. We have come a long way since 1997. A long road still lies ahead but it is a more promising trip that awaits us now.



▲ Lebanese and Jordanians having lunch at the Summer School.



Hosted by
Notre Dame University NDU,
Co organized by
the Faculty of Architecture, Art & Design, FAAD
in conjunction with
PLEA International

PLEA 2005 NDU – Lebanon

Under the patronage of His Excellency Yaacoub Sarraf – Minister of Environment, represented by Mr. Girgis Berbari, the Faculty of Architecture, Art and Design (FAAD), at Notre Dame University (NDU), Zouk Mosbeh – Lebanon, in collaboration with PLEA International (www.plea-arch.org), hosted the International Conference PLEA 2005 (Passive and Low Energy Architecture), from the 13th –17th of November 2005. The Conference attracted a diverse assembly of professionals, academicians and students from all over the world. Attending the opening ceremony were His Excellency the Minister of the Displaced Mr. Nehne Tohme, Deputy Mr. Nabil Bostani, President of NDU Rev. Fr. Walid Moussa, former President of NDU, Rev. Fr. Boutros Tarabay, members of the Board of Trustees, Fr. Roger Chikri – Director of Administration, Fr. Samir Ghsoub – Director of Finance, Dr. George Eid – VP Academic Affairs, Dr. Ameen Rihani – VP Sponsored Research & Development, Mr. Suheil Matar – Director General – Public Relations, Deans, Directors, Invited guests, Faculty members, staff and students.



Themes

- | 01. Low Energy Architecture
- | 02. Sustainable Urban Design and Planning
- | 03. Comfort in Outdoor Urban Spaces
- | 04. Innovative Low Energy Technologies
- | 05. Materials and building techniques
- | 06. Recycled Architecture: Re-use, Upgrading and Rehabilitation of Buildings
- | 07. Computer Simulation Tools
- | 08. Vernacular Architecture: Sustainability Lessons from the Past
- | 09. Case Studies
- | 10. Education and Technology Transfer
- | 11. Decision Making and Strategies for Action
- | 12. Reflections on Sustainability

Following the Lebanese National Anthem Dr. Assaad Eid - Dean of FAAD - opened the conference by stressing the importance of PLEA 2005 as being an international outreach from NDU exploring a sustainable future with the exchange of expertise with forty foreign countries on the subject of Passive Low Energy Architecture. He added that Lebanon is at the crossroads in its history and faces future challenges in finding alternative means of sustaining its environment and social needs. He commended the past and present NDU administrations and all who supported this event. Mr. Habib Melki - Chairman PLEA 2005 - followed by focusing on the current global concern for the preservation of the environment. He continued by emphasizing that NDU would be an appropriate platform in Lebanon as well as in the Middle East for the pursuit of research into environment-oriented and energy-conscious design in Architecture and Town Planning. Fertile ground exists for the elaboration of such research and for the follow-up and development of adequate policies and strategies for application and implementation. Rev. Fr. Walid Moussa elaborated on the importance of the architect's role in shaping our future environment and the challenges of applying new technologies in developing societies in the 21st Century. President of PLEA, Dr. Koen Steemers, followed and presented an overview of PLEA International. He quoted Prof. Steve Szokolay as saying about PLEA:

- | “It has no formal structure.
It lives by the dedication of individuals.
Its main activity is the organisation of annual conferences... bringing together of knowledge, thoughts and findings.”

And finally Mr. Girgis Berbari pointed to the problem of energy consumption in its impact on energy resources as well as the existing conflicts on the global scale. He concluded by saying that Lebanon also has its share of responsibilities towards the creation of an energy-efficient and sustainable future. In his conclusion he cited the various projects currently being developed in Lebanon.

The event took place at Le Royal Hotel - Debbayeh, where a series of three parallel sessions covered a wide range of subjects under the theme: "Environmental Sustainability: The Challenge of Awareness in Developing Societies".



▲ Dr. Assaad Eid, Dean FAAD
◄ Mr. Habib Melki, Chairman PLEA 2005



▲ Rev. Fr. Walid Moussa, NDU President
▶ Dr. Koen Steemers, PLEA President



Planning for this event started in Toulouse, France while Aram Yeretjian and Habib Melki were attending PLEA 2002 and materialized in March 2004 with the official announcement that NDU would host the 22nd PLEA Conference in 2005 after being selected from among other major universities in Lebanon. Its realization was possible only with the continuous help and support of former and present NDU administration, faculty, staff and students of the FAAD and the guidance of the Directors of PLEA International.

International Advisory Committee

- o | *Koen Steemers, President of PLEA.*
- o | *John Ballinger, Solar Efficient Architecture. Australia.*
- o | *John Martin Evans, Universidad de Buenos Aires. Argentina.*
- o | *Brian Ford, University of Nottingham, UK*
- o | *André De Herde, Université Catholique de Louvain. Louvain la Neuve. Belgium.*
- o | *Thomas Herzog, Technische Universität of München. Germany.*
- o | *Yuichiro Kodama, Vice-President of PLEA, Kobe Design University.*
- o | *Fernando O.R. Pereira, Universidade Federal de Santa Catarina. Brazil.*
- o | *Donald Watson, Rensselaer Polytechnic University. USA.*
- o | *Simos Yannas, Architectural Association. UK.*



▲ *Mr. Girgis Berbari - representing the Minister of Environment, Mr Yaacoub Sarraf*

Technical Committee

- o | *Jean Bouillot, Paris, France*
- o | *Paula Cadima, Portugal*
- o | *Raphael Compagnon, Ecole d'ingénieurs et d'architectes de Fribourg, France*
- o | *Martin Evans, Facultad de Arqitettura, University of Buenos Aires, Argentina*
- o | *Brian Ford, University of Nottingham, UK*
- o | *Nesreen Ghaddar, American University of Beirut, Lebanon*
- o | *Andre de Herde, University of Louvain-la-Neuve, Belgium*
- o | *Daria El Khoury, Lebanon*
- o | *Matilda El Khoury, Lebanon*
- o | *Habib Melki, Notre Dame University, Faculty of Architecture, Art and Design, Lebanon*
- o | *Fernando O.R. Pereira, Universidade Federal de Santa Catarina, Brazil*
- o | *Dana Raydan, RMJM London Ltd, Cambridge, UK*
- o | *Hans Rosenlund, University of Lund, Sweden*
- o | *Robert Saliba, Notre Dame University, Faculty of Architecture, Art and Design, Lebanon*
- o | *Matheos Santamouris, University of Athens, Greece*
- o | *Miguel Sattler, Departamento de Engenharia Civil/UFRGS, Brazil*
- o | *Koen Steemers, University of Cambridge, UK*
- o | *Ahmad Taki, Incorporating Leicester School of Architecture, UK*
- o | *Jaafar Toukan, Jaafar Toukan & Partners, Jordan*
- o | *Simon Yannas, Architectural Association, UK*
- o | *Aram Yeretjian, Prime Design, Lebanon*

Organizing Committee

- o | *Habib Melki Chairman, PLEA 2005, NDU, Architecture, FAAD*
- o | *Dana Raydan, PLEA Board Representative in Lebanon*
- o | *Jean-Pierre El Asmar, NDU, Architecture, FAAD*
- o | *Andre Bechara, NDU, Design, FAAD*
- o | *Chadi Bteich, NDU, FAAD*
- o | *Linda Selwood Choueiri, NDU, Design, FAAD*
- o | *Graziella Daghfal, NDU, Design, FAAD*
- o | *Nicolas Gabriel, NDU, Architecture, FAAD*
- o | *Robert Haddad, NDU, Design, FAAD*
- o | *Jocelyne Issa, NDU, Public Relations Coordinator*
- o | *John Kortbawi, NDU, Design, FAAD*
- o | *Nadim Matta, NDU, Design, FAAD*
- o | *Diane Mikhael, NDU, Design, FAAD*
- o | *Jessica Saba, Secretariat, PLEA 2005*
- o | *Robert Saliba, NDU, Architecture, FAAD*
- o | *Aram Yeretjian, Prime Design - Order of Engineers & Architects*
- o | *Danielle Zaccour, NDU, Fine Arts, FAAD*



◀ *PLEA Director Prof. Andre de Herde*



Comments by the Organizing Committee members

Attending conferences abroad somehow made it clear to us that it is going to be hard work. At times, the work seemed too much to handle, keeping in mind that all the members in the organizing committee had their academic responsibilities to maintain but we managed to not only pull it through but proved to have done almost a perfect job in setting, scheduling, organizing all the conference, starting from the reception shifts at the airport until the last day where we made sure that everybody did their check-out and were ready to return home.

The day-tour was a great idea because most of them did not have the slightest idea about what, who and where Lebanon is. The workshop did give the attendees a different vision of Lebanon and I am sure being exposed to such a variety in culture, contrast in architecture and wonderful landscape diversity, that we managed to summarise for them in the brief time they spent here, made them decide to visit Lebanon soon and that is what I have personally heard from many of them.



▲ *Technical Committee Prof. Hans Rosenlund*



▲ *PLEA Directors and Associates (from left): Mario Cuccinella, Willi Weber, Miguel Sattler, Paula Cadima, Fernando Pereira, Koen Steemers, Simos Yannas, Alexandros Tombazis, Ken-ichi Kimura*

▼ *PLEA 2005 Organizing Committee*



As for the organization, it was said by one of the organizers of PLEA 2006: "It is going to be impossible to compete with PLEA 2005 Lebanon."

Graziella Daghfal, Organizing Committee PLEA 2005, Lebanon

PLEA was a wonderful experience.

To bring people from all over the world together to this little problem-filled country was a great encouragement to us.

To me the quality of the people was an inspiration; people who can look above their everyday problems and work towards easing some of the serious problems we face in a creative manner.

I am sure this conference will change the way I teach in the future for the better.

Linda Selwood Choueiri PLEA 2005 organizing committee member



Joseph Campbell said once: "In mythology, an invisible plane supports the visible plane." This is how the overall PLEA committee members were acting and working to make the event a real success. The flow of the work, the organization and the audience response were a perfect interaction to witness a unique event with a unique team. Well done!

Diane Mikhael, Instructor/ Design Department FAAD/ NDU PLEA 2005 organizing committee member

PLEA 2005, Lebanon was one of the few moments where Lebanon (in this case FAAD - NDU) joined the academic global community without only being a spectator. Not only was FAAD able to organize and host but also to participate and produce. It is somehow a source of pride to each one of us.

Nicolas Gabriel, NDU, Architecture, FAAD PLEA 2005 organizing committee member



PLEA 2005 has been a very enriching experience, since this international event offered the opportunity of corresponding, establishing contacts and meeting people from all over the world.

Appreciation, felicitations, compliments and gratitude of the participants during the conference were a complete satisfaction after such hard work!

Jessica Saba, Secretariat, PLEA 2005 PLEA 2005 organizing committee member

I believe that PLEA 2005 has dual importance and value. The first importance is plotting FAAD NDU on the international level of the academic map. The second importance is reflected on me as an organizing committee member; it enriches my experience and skills to better handle tasks for lectures and conferences organization.

Chadi Bteich, NDU, FAAD PLEA 2005 organizing committee member



Challenge of awareness in Developing Countries is the topic of the PLEA 2005 international conference. The paper I presented considered the issue of Changing Attitudes in Lebanon towards Sustainable Practice. The strategies I introduced to achieve this purpose did not consider the spirit of teamwork as an important issue. However this issue was experimented by the organizing committee, leading to the success of the conference.

Jean-Pierre El Asmar, PLEA 2005 organizing committee member

Being part of the PLEA 2005 organizing committee has been a very rewarding experience. The team effort provided mainly by the design dept, to make a success of this conference has proved to be efficient. The international audience presence and their feedback are the best testimony of the success of PLEA 2005. The overall feedback is rather positive.

Nadim Matta, NDU, Design, FAAD PLEA 2005 organizing committee member



Commitment and joint effort made PLEA International Conference a real success. Now I can proudly say: 'Experience is the only Teacher.'

*John Kortbawi, NDU, Design, FAAD
PLEA 2005 organizing committee member*

PLEA 2005 has represented a golden opportunity to place NDU and Lebanon on the international cultural arena. Events such as PLEA 2005 should be encouraged at NDU as they represent ideal catalysts in the process of evolution and growth towards achieving the ultimate goal for any higher education establishment in becoming a universal environment for global cultural and academic exchange.

*Danielle Zaccour, NDU, Fine Arts, FAAD
PLEA 2005 organizing committee member*

"Awareness" in this conference had a two-fold objective: first on the national and regional scale targeting architects, urban planners, civil and mechanical engineers, health specialists, economists, legislators and other governmental agencies, in an effort to elaborate strategies and policies leading to relevant objectives and desired goals. And second, on the international scale so participants may grasp the true image of Lebanon in all its potentials by presenting an informative and diverse program:

November 13 - Day 1:
 ○ | Tour – Baalbeck, Beiteddine and Deir El-Qamar

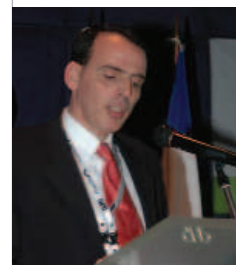
November 14 - Day 2:
 ○ | Opening Ceremony
 Plenary session: keynote and invited speakers



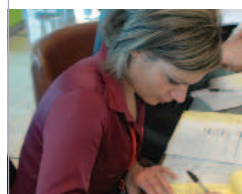
Keynote Speaker:
 Thoughts and Deeds
Alexandros N. Tombazis



Invited Speakers:
 Coastal, Mid-Mountain, Mountain & Plateau: Micro-climates & Architectures in Lebanon
Jean Bouillot



Charles Hostler Student Center, American University of Beirut: an Environment Friendly Project (a Case Study)
Elie Ibrahim, Barbanel Liban s.a.l.



November 15 – Day 3:

○ | Plenary session: keynote and invited speakers

NDU visit



Keynote Speaker:

Urban Spectacles: Socio-Cultural Sustainability & Commodification in Arab Cities

◀ *Yasser Elsheshtawy*



Invited Speakers:

Form and Microclimate: Spatial Confinement and Heat in the Urban Patio

◀ *Paula Cadima*

Energy Conservation and Efficiency in Lebanon

▶ *Anwar Ali, Lebanese Center for Energy Conservation Project (LCECP)*



SOLIDERE Presentation and visit to Downtown Beirut

Presentation by *Angus Gavin, Solidere* on Beirut Central District

Site visit to Solidere offices and to Beirut Central District ▶



▼ **Formal Banquet Dinner** ▼



November 16 – Day 4:

o | Plenary session: keynote and invited speakers



Keynote Speaker:

The Optimality of the Built Environment

◀ Rifat Chadirji

Keynote Speaker:

Interview by Nicola Leonardi
Director of «The Plan»

Mario Cucinella ▼



Invited Speaker:

Education for Sustainable
Architecture

Simos Yannas ▼



▼ Closing Ceremony ▼

PLEA 2005 Achievement Award

Achievement Award: Mr. Jacques Liger-Belair

He has French and Lebanese nationality.

In 1961, he returned from New Delhi to Lebanon where he settled.

Co-founder and principal of the successful architecture practice *Atelier des Architectes Associés* (1980). He is a local architect, urban planner, expert in Lebanese architecture-heritage and artist.

He researched, designed and published a very rich repertory of schemes and projects with the constant concern of preserving our heritage, protecting the environment, adapting the climate and making use of natural resources, insuring indoor comfort.



PLEA 2005 Best Paper Awards:

● Maria Cristina Munari Probst

Paper # P266-t04

Title "Integration and formal development of solar thermal collectors"

● Heide Shuster

Paper # P103-t04

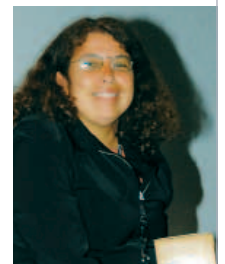
Title "Temotion - an interdisciplinary development of a decentralized and modular façade system"

PLEA 2005 Best Student Poster Award:

● Antonio Reyes Melogno and Sonia Afonso

Paper # P276-t01

Title "Vaga-Lume Small Farm – Rancho Queimado – Santa Catarina – Brazil: a frame of reference for perma-culture and eco-villages"



PLEA 2005 Best Poster Award:

● Lokman Hakim Ismail and Magda Sibley
 Paper # P073-t08
 Title "An Evaluation of Bioclimatic Skyscrapers in Malaysia to Show Their Effect on User Satisfaction and Energy Utilization in a Tropical Climate"

PLEA 2006 Announcement

► *PLEA 2006*
 Geneva, Switzerland
 6-8 September 2006



▲ *PLEA 2006 Organizer Prof. Willi Weber*



Student competition prize award

Two MENTIONS were issued to the following students for their efforts and contribution as well as a cash prize of \$950 each:

- Ms. Giulia Vanni - *University of Florence, Italy*
- Mr. Hisham Dalleh- *Notre Dame University, Lebanon*

▼ **Closing Session Attendee's** ▼



PLEA 2005 Authors from NDU:

- Dr. Michel Hayek
 Title "The Sustainability of Lebanese Stone-Built Old Houses as Revealed by Modern Advanced Numerical Methods"
 Paper # P126-t07
- Ms. Danielle Zaccour
 Title "Lebanese Vernacular House Models, A Source of Inspiration for Sustainable Passive and Low-energy Architecture"
 Paper # P326-t08
- Mr. Jean-Pierre El Asmar
 Title "Sustainability: changing attitudes in Lebanon"
 Paper # P071-t12
- Linda Selwood Choueiri
 Title "Teaching with Awareness"
 Paper # P317-t10
- Aram Yeretian
 Title "An assessment method for residential buildings in Beirut"
 Paper # P340-t11

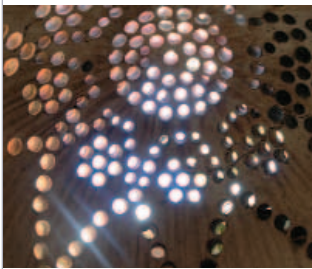


November 17 – Day 5:

o | The HAMMAM Workshop - Tripoli, Lebanon

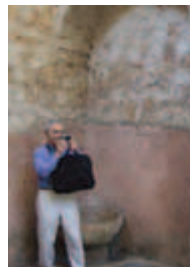
Workshop Session – NDU, NLC Barsa

- the hammam concept, structure, materials, functions, thermo-dynamic, sociology, urban integration;
- state, use, re-use, future in the human and city context";
- pannel discussion.

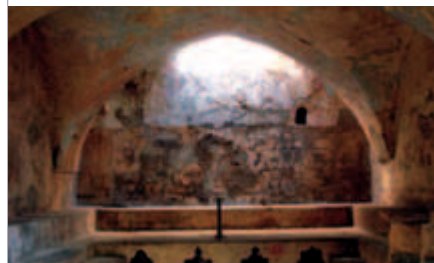


Contributions:

- Heidi Dumreicher/Magda Sibley: "The hammam as a social and architectural value";
- Richard S. Levine: "Sustainability oriented urban design";
- Jean Bouillot: ▲ "The hammam building: microclimates through a climate"



▼ Tripoli Tour ▼



▼ NDU, NLC Barsa ▼



The hosting of PLEA at NDU – Lebanon should not stop here but serve as an incentive for further development of the academic as well as the practical implementation of Passive Low Energy Architecture. A combination of environmental awareness and resource availability are the only means to produce a modern and energy-efficient ecosystem.

Finally, it is our hope that NDU will be instrumental in generating a sharper awareness of the importance of this topic. If all this is achieved, NDU could aspire to new horizons as a leader in developing concepts and methods for sustainable architecture. Architecture graduates from this university would be exposed to the most recent trends in design similar to programs they could acquire in leading universities worldwide. It could become a regional center that offers consultation and provides workshops in energy-efficient architecture. It could become a resource center which organizes international conferences and seminars to disseminate information. It would also attract international scholars interested in further investigation of this subject. Hopefully NDU will maintain a determination to pursue this mission.

o | *Habib Melki, Chairman
PLEA 2005*

Special thanks to our sponsors (listed below), the student ushers and the technical team who supported us throughout the conference:

- | *EXOTICA*
- | *BARBANEL DAMMOUS*
- | *AL BIA WAL TANMIA*
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- | *AL MASHREK*
- | *AL MABANI*
- | *HABIB SALAMEH*
- | *ALFRED MATTA*
- | *JAMES & JAMES LTD*

○ plea2005@ndu.edu.lb



Proceedings

A compilation of all researched papers that were submitted in the PLEA 2005 conference is published in two volumes entitled:

Environmental Sustainability: The Challenge of Awareness in Developing Societies

Editors: Dana Raydan & Habib Melki

Published by NDU Press, 2005

The two volumes can be acquired from the Faculty of Architecture, Art & Design (FAAD) – NDU or by contacting the following address: plea2005@ndu.edu.lb



Speech of NDU President Father Walid Moussa at the PLEA Conference



Dear Participants,

The well-known American architect, Frank Lloyd Wright, once said: "I believe in God, only I spell it nature."

These words of Wright make me think of three basic truths:

1. I understand from Wright's statement how important is the relationship between the architect and nature. It is likened to the relationship of the human being with his God. It is a relationship of love, respect, inspiration, protection, adoration, etc..
2. The mission of the architect, the way I see it, is close to the divine. If man and woman are procreators, in this way they share with the God-Creator in the creation of humankind, and the architect shares with the God-Creator in the making of the universe. To him, this planet has been entrusted for him to develop and protect it.
3. The responsibility we bear towards the environment in which we live is indeed great. This environment has been handed over to us, and we in turn, in the 21st century, are going to pass it to the generations succeeding us. The question that poses itself here is, "How are we disposing of the environment?"

The words of Frank Lloyd Wright remind me of a statement I retained from the American horticulturist Luther Burbank that "Nature's laws affirm instead of prohibit. If you violate her laws you are your own prosecuting attorney, judge, jury, and hangman." Indeed, "Nature, to be commanded, must be obeyed"; that is what the English philosopher Francis Bacon once believed.

My dear friends, environmental sustainability is the topic of our conference this year, and it focuses on the challenge of awareness in developing societies. The real challenge could be how to apply the ideas and technologies of leading societies in this field in the developing societies, taking into consideration the specificity of the latter.

Therefore, the challenge should not stop at the awareness process; rather it should reach further. It should deal with the application of all results and proceedings. And here I would refer to the words of Eric Hoffer, who wrote: "They who lack talent expect things to happen without effort. They ascribe failure to a lack of inspiration or ability, or to misfortune, rather than to insufficient application. At the core of every true talent there is an awareness of the difficulties inherent in any achievement and the confidence that

by persistence and patience something worthwhile will be realized."

My dear researchers, you all have the talents, the inspiration and the ability, and I am fully confident in your persistence and patience! That's the reason why you are here today.

Finally, do not forget that we become what we build! "We shape our buildings; thereafter, they shape us." With this statement of Winston Churchill, allow me to thank you for being here today.



FACULTY OF POLITICAL SCIENCE, PUBLIC ADMINISTRATION AND DIPLOMACY

PREPARING THE NATION'S FUTURE LEADERS

○ | When the political columnists say 'Every thinking man', they mean themselves, and when candidates appeal to 'Every intelligent voter' they mean everybody who is going to vote for them.

Franklin P. Adams,
Nods and Becks, 1944.



The Faculty of Political Science, Public Administration, and Diplomacy programs are designed to provide students with in-depth knowledge of international affairs, diplomatic exchange, public service, the different legal systems, and how nation-states, people, and organizations interact in the light of globalization. The program started in 1992 in the old campus location within the Faculty of Business Administration, was transferred to the Faculty of Humanities and then became autonomous with the creation of an independent faculty. The Faculty of Political Science, Public Administration and Diplomacy (PSPAD) has three departments: the Department of Political Science; the Department of Public Administration, and the Department of International Affairs and Diplomacy.

The Faculty is served by nine full-time faculty members and some part-timers. All full-time faculty members hold PhD degrees in the field of their specialties from France, the United States and Austria.

Faculty members are involved on a regular basis in professional activities including the presentation of papers in both local and international conferences as well as participation in

political national debates about political, legal, and public administration issues on radio and TV stations and in magazines and newspapers. Faculty members have a strong publication record with academic and educational institutions, both in and outside Lebanon, specially in the United States and France in the most prominent journals and publishing companies. Faculty members' research has focused on academic books about Lebanon, the Middle East, modern public administration, politics and international relations, ethnic conflicts, terrorism, and the European Union.

The graduate program of the faculty has the following M.A. Degrees: M.A. in Political Science, M.A. in Political Science- Comparative Law Concentration-, M.A. in Public Administration, M.A. in International Affairs and Diplomacy - International Law Concentration.

Graduates of the program – more than 300 – are employed in the Lebanese Foreign Service, various international organizations, and different Lebanese public administrations. Other graduates have traveled abroad to pursue advanced degrees in international affairs, public administration, and international law.

○ | *Dr. Georges LABAKI*
Associate Professor, NDU

FairTrade project (April Trade Justice activities)

Lebanon Fair Trade days of action and media week 11-16 April

<http://www.april2005.org/media/index.html>

Lebanon: Fair Trade days of action and media week

Days of Action - All Week



Introduction to the concept of importing fair trade products to the Middle East (e.g. tea, chocolate) and the export of Middle Eastern fair trade products directly to Latin America and West Africa.

- | *April 12 - Fair trade South-South info stand at Souk el-Tayeb, Beirut*
- | *April 13 - Food sovereignty day of action at Martyrs' Square, Beirut*
- | *April 14 - Presentation and discussion about organic and fair trade products at American University of Beirut*
- | *April 15 - Traditional food festival and food sovereignty day at NDU*
- | *April 16 - Fair trade South-South info stand at Souk al Tayeb, Beirut*

Middle Eastern Media Diversity Week 11-16 April

Highlighting the threat of losing the "cultural exception" clause in the WTO treaty during the Doha Round negotiations, and the impact this will have on regional cinema, TV and music. More information on this event

○| **Organiser**

Fair Trade Liban and Attac Liban

○| **Contact**

Eugene Sensenig-Dabbous

Brief Description of Fair Trade project:

One of the main activities of MADS Club during the academic year 2004/2005 was to work for the Fair Trade project initiated by FairTrade Liban.

This project consisted of four main activities: Souk el-Tayeb, Global Week of Action, local certification of Fair Trade, and Fair Trade campaigning at NDU.

Souk el-Tayeb: Souk el-Tayeb is a farmers' market and a meeting place for farmers, producers, and consumers. It tries to give the consumer a new name, co-producer. In a way consumers are the most decisive link in the chain as they hold the buying power. Souk el-Tayeb is not just a place to buy and sell; it is first an informational and educational place for sharing the importance of awareness and responsibility. MADS participated several times in the Souk by setting up informational stands with brochures and posters and explaining about the concept of Fair Trade to the people.

Global Week of Action:

In 10-16 April 2005, there was a global movement supported by international NGO's like Oxfam and Christian Aid for Trade Justice. FairTrade Liban (i.e. the members of MADS and Dr. Sensenig-Dabbous) were the national contacts of the event (www.april2005.org). In order to plan the activities for

the week, MADS organized a gathering at LAU Beirut where different NGO and agricultural business companies attended the meeting. The activities in which MADS participated during the week were the following:

○ | *Tuesday 12th: MADS set up Fair Trade South-South info stand and improvisations at the Souk el-Tayeb farmers' market in Hamra, Beirut. We handed out brochures to the people and explained about the Fair Trade concept.*

○ | *Wednesday 13th: MADS participated at the Lebanese Unity Day in Martyrs' Square. We also set up an informational stand and explained about Fair Trade to the people.*

○ | *Thursday 14th: MADS participated in the domestic certification of organic and Fair Trade products presentation, panel discussion and strategy session at AUB. Besides MADS, this event was sponsored by LibanCert (the organic certifications in Lebanon), Faculty of Environmental Sciences Programme of AUB, Heinrich*

Boell Foundation, and Souk el-Tayeb.

Local Certification of Fair Trade: MADS is now working with a French student majoring in Development Studies (France) who is currently an intern at René Muawad Foundation. She is helping us to lay a foundation of Fair Trade values to endorse a local certification procedure of Fair Trade products produced and sold in Lebanon.

Fair Trade Campaigning at NDU: MADS set up a stand at NDU campus on June 6th to explain to the students about the Fair Trade concept. In this awareness campaign, students from the Dr. Sensenig-Dabbous POS 101 class also participated by helping us out on research and on the stand.

Model UN (March 2006)



MUN Eastern
Mediterranean
April 2006

○ | Where Students
become International
Leaders for Two Whole
Days

Brief Description of the Model United Nations (MUN) project:

In preparation for the Second Lebanese International MUN in the spring of 2006, MADS organized a delegation to an MUN in Turkey.

More than 100 students from all over the world were selected from different universities to participate in Sabanci University International Model United Nations (SMUN) that took place on the 19th, 20th and 21st of November in Turkey. Four Lebanese students, referred to as "honorable delegates," participated in this MUN and assumed the role of nation's representative. Three of them were NDU students selected by the FPSAD with the great assistance and cooperation of our MADS advisor, Dr. Eugene Sensenig-Dabbous. The students were Hasan

Youness (Palestinian delegate), Sally Mousa (delegate of Rwanda) and Mony Trad (delegate of Lebanon). The organization was professional and the efforts to make this experience successful were extraordinary. The three main issues that were discussed and found resolutions for were capital punishment, civil war intervention, and the membership of Turkey in the European Union. The students were forced to react verbally to circumstances as they arose and to reinterpret their position in the light of new facts, which meant that they rarely had a chance to give a prewritten speech. The NDU students were very prepared and spontaneous, and were the best representatives of their country and university, as they have been told by the organization team. Finally, all the participants were

offered certificates for participating in this international MUN.

Following this MUN, MADS has delegated MUN participants from NDU to UN simulations in Belgrade in Yugoslavia, Sydney in Australia and Odessa in Ukraine. For the fall of 2005/2006, MADS will be setting up a working group for an Eastern Med MUN at NDU.

What objectives will MUN Eastern Mediterranean attempt to fulfill?

MUN Eastern Med will first and foremost initiate participants to the basics of the United Nations system, while allowing them to familiarize themselves with the foreign policy positions of their assigned countries.

In addition to enhancing their research capacities, MUN also aims at increasing the negotiation and public speaking skills of the participants.

MUN also provides a forum for the exchange of opinions on foreign policy issues, and on internationally debated concerns.

MUN is rewarding, as a prize is discerned to the best team. Here's something which is worth being highlighted on a participants' resumé!

MUN presents the participants with an interactive, out-of-the-classroom

integration into world affairs.

Besides the academic learning advantage brought by a MUN, participants will share a unique international experience where they will learn cultural integration and make lots of friends.

Selected topic for the MUN event:

The General Conference of the UNESCO meeting in Paris in October 2005, adopted a convention which reinforces the UNESCO Universal Declaration on Cultural Diversity, adopted in 2001, that cultural diversity must be considered as a "common heritage of humanity".

Based on the outcome of that conference, MUN Eastern Mediterranean shall have cultural diversity in the Mediterranean as the central topic of its proceedings. Government measures to encourage and preserve cultural diversity in the Eastern Mediterranean will be the main focus of the event's debates.

Debates will be held as part of a simulated General Assembly session. There will be one committee only and the number of countries will be assigned to the delegates once all applications have been received and the final number of participants confirmed.

Preliminary Program of the event

The event will extend over a period of two days; Friday 31st March – Saturday April 1st – Sunday April 2nd.

○ | Friday, March 31st

An opening ceremony will be held in a place which will later be designated by the organizing committee. This ceremony will be a get-together for all the participants. It will be attended by representatives of the PSPAD teaching community, and by a United Nations speaker (also to be later announced) who will talk about the importance of the role of the UN in celebrating diversity.

Suggested speakers:

- | Mr. Christian De Clerq, Chief, Program Planning and Technical Cooperation Division (UNESCWA)
- | Ms. Kendra Knoebl, Program Officer, UN-OIOS.

○ | Saturday, April 1st

09:00-09:30

Breakfast, NDU premises.

09:45-12:30

1st General Assembly Session- country speeches - 2 minutes/Country-NDU Auditorium.

▼ 12:30-13:00 Coffee Break

▼ 13:00-14:30

2nd General Assembly session- Participants debate country positions-NDU Auditorium

▼ 14:30-15:30 Lunch Break

▼ 15:45-17:00

3rd General Assembly session- Participants cast their vote-NDU Auditorium.

▼ 17:00-19:00

Participants return to their homes or places of accommodation

▼ 19:15----

Social event (to be announced later)

○ | *Sunday, April 2nd*

▼ 09:00-09:30

Breakfast, NDU premises.

▼ 09:45-11:00

4th General Assembly session- Participants comment and make clause adjustments-NDU Auditorium.

▼ 11:00-16:00

Participants start writing the resolution

Lunch Break

Participants continue writing the resolution

▼ 16:00-16:30

Resolution is announced to the jury.

▼ 16:30-17:00

Jury meets and deliberates

▼ 17:00-17:30

UN Guest Speaker awards trophy of best delegate based on jury deliberation.

▼ 17:30-19:00

Participants return to their homes or places of accommodation

▼ 19:15----

Social Event and farewell party.

Model US Presidential elections (June 2004)

The goal of this project was to teach NDU students from all faculties about the American political system. The Model US Election Debates will be repeated in the run-up to the mid-term congressional elections in November of 2006.

○ | *Wednesday 02 June 04 15:00 – 17:00*

NDU: Democrats vs. Republicans

▶ Republican team captain:

Pascale Dahrouj

▶ Democrat team captain:

Hasan Youness

○ | *Participants:*

▶ Two student debate teams of four each

▶ Democrat and Republican research teams

▶ Three independent referees

▶ Two academic team advisors (Dr. Akl Kairouz and Dr. Eugene Sensenig-Dabbous)

○ | **Round One: Introduction (15 minutes each for a total of 30 minutes)**

▶ **One/A general statement** by respective team captains (5 minutes each)

▶ **One/B detailed policy statement** by all four team members: foreign policy, economy, infrastructure/internal security, social and cultural issues (10 minutes each)

○ | **Round Two: Cross examining (15 minutes each for a total of 30 minutes)**

Break: Consultation with entire team and preparation of final statements (10 minutes)

○ | **Round Three: final statement (10 minutes each for a total of 20 minutes)**

Referees' deliberations (10 minutes)

Referees' presentation (10 minutes)

LADE initiative



<http://www.ladeleb.org/english/>

In order to increase interest in the Lebanese electoral process, the FPSPAD and the MADS Club invited the Lebanese Association for Democratic Elections (LADE) to speak at NDU during the Introduction to Political Science courses (POS 101 & POS 201) as of the spring of 2001. A variety of NDU students have signed up to work as LADE election monitors over the years, especially during this year's first

democratic Lebanese parliamentary elections.

MADS is setting up a LADE group at NDU in the fall in order to work with the FPSPAD on its spring 2006 conference: *Electoral Systems in Countries with Significant Linguistic or Religious Diversity*; and with the Lebanese Emigration Research Center (LERC) on its project: *Absentee Voting*.

Religion and the Social Sciences (Metanexus & Communio)

<http://www.metanexus.net/local%5Fsocieties/default.html>



Lebanon
Notre Dame University
Zouk Mikael
NDU, Lebanon Communio Study Circle

http://www.metanexus.net/local%5Fsocieties/societies_detail.asp?SocietyID=77

Undergraduate majors in the FPSPAD have worked with the Metanexus Local Societies Group Lebanon, and the *Communio* Group Lebanon (NB: the Communio movement was founded by Cardinal Joseph Ratzinger, now Pope, on the role of religion and faith in the social sciences.

They participated in a monitored discussion on the History and Humanities Network (N-NET) Listserv: H-Catholic (H-Net Discussion List on International Catholic History [H-CATHOLIC@H-NET.MSU.EDU]) in this issue, the results of which were summarised in the NDU Spirit.

○ | The death of democracy is not likely to be an assassination or an ambush. It will be a slow extinction from apathy, indifference and undernourishment.

Robert Maynard Hutchins,
Great Books, 1954.

FairTrade textbooks – MLA Student Handbook with Malek's

In cooperation with Malek's Bookstore, Dr. Eugene Sensenig and Dr. Johan Gerde negotiated with the Modern Language Association (MLA) in order to have the sale of the licensed Indian edition of the "MLA Handbook for Writers of Research Papers, Sixth Edition" introduced to the MENA region. As of the fall of 2004 the MLA student handbook, licensed edition, is available in Lebanon for LL 15,000 instead of the imported US edition, which is also sold by Malek's, for \$26.

MLA Handbook for Writers of Research Papers (6th edition)
Author(s): Joseph Gibaldi
Pages: xvii + 361
Published: 2003
ISBN: 0-87352-986-3 (paperback)
ISBN: 0-87352-987-1 (large print paperback)
"This standard reference tool addresses the rapidly evolving needs of today's students."

American Reference Books Annual
"The style bible for most."



<http://www.mla.org/store?hizid=S178>

ICC initiative

On June 1st, 2005, 150 NDU students said **YES** to the International Criminal Court (ICC) by signing a petition requiring the Parliament and the President to sign and ratify the Rome Statute of the International Criminal Court.

Because most perpetrators have committed crimes in the knowledge that it was unlikely they would be brought to justice, the ICC, which is not subject to domestic balance of power, which has jurisdiction reaching individuals, and which defies the barriers of immunity, is

intended to act as a deterrent to people planning to commit atrocities; to encourage national prosecutors to carry out their duties, and to compensate victims and their families.

Crimes falling within the jurisdiction of the ICC are war crimes, genocide, and crimes against humanity. More than 90 states have so far ratified the Rome Statute by which the ICC was established. Lebanon still hasn't ratified it, which led the MADS' members to support Amnesty International in its endeavour to

pressure the Lebanese parliament to ratify this statute.

After having received a two days training by Amnesty International, MADS' students have convinced their colleagues that Lebanon is today at a crossroads, that political agendas are being (at least should be) formulated, and that we must press those electoral candidates, in our statute of constituents, to advance the project of ratification to the parliament.



EuroIslam, Ankara and Bucharest

<http://www.aegee.org/euroislam/>

Six students (Gerard Saatdjian, Natalie Koborsy, Aida Daher, Cynthia Karam, Mahmoud Youness, and Olivia Pennikian) and Dr. Eugene Sensenig-Dabbous (who was also one of the speakers of the conference) participated in the conference in Ankara organized and hosted by AEGEE-Ankara.
<http://www.aegee-ankara.org/eyecontact/>

Islam and Europe: Eye Contact was an international conference held between the 1st and 6th of October 2004 at the Middle East Technical University where 75 university students from all around Europe and the Middle East were invited. The conference was organized by the European student union AEGEE and was composed of panels and workshops with the contribution of well-known academics and journalists investigating the prevailing tension between the Islamic and European countries, examining its consequences for Europe,

and offering their own resolutions about how to furnish dialogue between the Islam and Europe.

On the last day of the event, the participants conferred about the sustainability of youth action towards intercultural dialogues and plans for future activities. The Lebanese delegation (i.e. us) proposed to organize a conference about "Being a Christian in a Muslim World / Being a Muslim in a Christian World".

The EuroIslam group set up an Oral History Project on "Being Muslim/Being Christian" in preparation for the conference, which is postponed to 2006.

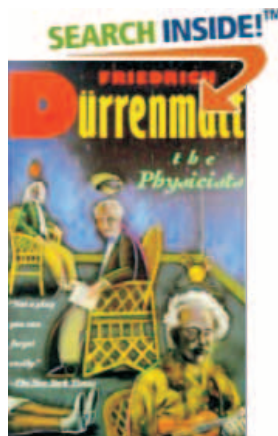
NDU students were invited to the follow-up AEGEE international conference in Bucharest in fall of 2005. Five NDU students, one AUB student and one Lebanese NGO representative took part in this year's conference.



http://www.aegee.org/euroislam/fileadmin/final_conf/

Ciné Club political films

Between 2002 and 2004 students in the Faculty organised a club for political films, which were shown at NDU on a weekly basis. As of the academic year 2005-2006 the Ciné Club has been reinitiated by the Humanities Faculty.



Friedrich Durrenmatt "The Physicists" with FAAD

Students for the Faculty, as well as other Uni faculties will be staging this play in the fall of 2006 with financial support of the Metanexus Local Group Lebanon.

The production highlights the science/ethics interface and will be produced in a way to reflect Lebanese social and political reality.

Peace Studies Conference in Honour of Giorgio La Pira – 1904/2004

Sources of Conflict and Prospects for Peace in the Mediterranean Basin

University of Messina / Central Connecticut State University

The Faculty organised a Uni-wide competition, based on the quality of submitted students' papers, which enabled students from five faculties to participate in the Messina conference free of charge in the spring of 2004. Three student papers were selected for publication and will be contained in a volume which will be on the market by the end of this calendar year.

Peace Studies Conference

Sources of Conflict and Prospects for Peace in the Mediterranean Basin, March 17-21, 2004, Messina

Subjects covered included The Mediterranean, Sea of Peace; The Mediterranean, Cradle and Crossroads of Culture; Internationalism Terrorism; The UN Crisis, Politics and Economics after the Iraqi War; The Israeli-Palestinian Conflict; The European Approach to the Enlargement of Democracy in the Balkans; The European Union and Rising Nationalism in the Balkans; The Serb Transition to Democracy; The Euro-Mediterranean Partnership; and Christian-Muslim Relations. The various sessions were accompanied by student workshops.

<p>LERC's Brochure</p> <ul style="list-style-type: none"> -English -Portuguese -Arabic 	<p>LERC's Activities</p> <ul style="list-style-type: none"> -LERC's Forum and Conferences -LERC's Participation in Conferences -Establishing the Friends of LERC -Lecture Series -Upcoming Events 	<p>Migration History Workshop Festival Reconnecting Time and Space</p> <ul style="list-style-type: none"> -Zgharta Ehdén -Messer El Chouf (In Preparation)
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Migration History Workshop Festival

The Faculty works together with LERC in developing migration history festivals. Students as well as two professors from the faculty were actively involved in developing migration studies capacity at NDU.

Deutsche Bildungstage: Graduate Opportunities in Germany, Switzerland, Austria and South Tirol/Alto Adige (Italy)

In cooperation with the Office of Research and Development, under Dr. Ameen A. Rihani, Vice-President, Sponsored Research and Development, a career and study fair for the German-speaking countries is being prepared for the 15th of March 2006. Dr. Akl Kairouz and Dr. Eugene Sensenig-Dabbous initiated this project, together with Dr. Norman Nikro from the Humanities Faculty.

Democrats Abroad and Republicans Abroad

As reported in the NDU Spirit, Dr. Akl Kairouz (Republicans Abroad - Lebanon) and Dr. Eugene Sensenig-Dabbous (Democrats Abroad - Lebanon) assist NDU students, faculty and staff who are US citizens and wish to participate in the American elections. Both work together closely with the US embassy in Lebanon and their respective international party organisations.



<http://www.democratsabroad.org/>



<http://www.republicansabroad.org/>

Giving money and power to government is like giving whisky and car keys to teenage boys.

P.J. O'Rourke,
Parliament of Whores,
1991.

Writers' Pool

In cooperation with Lebanese Center for Research and Studies (LCRS) under the direction of Dr. Abdo Kahi, Coordinator, as well as a number of national and international NGOs and IGOs (e.g. the UNDP, ESCWA and ILO), a training programme for undergraduate seniors, MA students and recent graduates is being developed in order to better equip our students for positions in the professional job market, especially in the field of social science research and development.

Political visitors



On October 31st, 2005, the NDU Discovery Club hosted Minister of Industry H.E. Pierre Gemayel, while on November 2nd Deputy George Adwan was the guest of the NDU Debate Club.

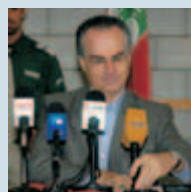
On November 2nd, Mr. Gibran Bassil, official of the Free Patriotic Movement, gave a lecture organised by the NDU Social Club. All three speakers focused on the results of the UN investigation into the assassination of former premier Rafiq El-Hariri. They also discussed pressing issues in Lebanon, principally the Presidency, reform in general and electoral political alliances.

They generally agreed that all political groups should contribute together to finding future strategies.

▼ Deputy
George Adwan



▲ H.E. Pierre
Gemayel.



► Mr. Gibran
Bassil.



NDU Iftar



On October 24th, 2005, Notre Dame University offered its yearly Iftar to honour its Muslim students, with the presence of Father Walid Moussa, President of NDU, Mr. Suheil Matar, NDU Director General of Public Relations, Father Boulos Wehbe, Director of Student Affairs, Father Beshara el-Khoury, Assistant Director, and a gathering of staff and students.

Presiding the event, Father Walid Moussa delivered a speech about the meaning of the Blessed Month of Ramadan, a month expressing faith and piety, and about the values it represented. He said that this period was a call for one and all to take the patriotic stand that was a guarantee for Lebanon and its unity. These could be assured only by the spirit of sacrifice implied by this holy fast, one which was a call to God that He might give us the grace of living together under one flag, the flag of Lebanon, flag of freedom and sovereignty.

Ciné Club



On October 18th, 2005, the NDU Ciné Club launched its series of showings of Oscar-winning films, accompanied by discussion of their artistic merits led by film critic Emil Chahine, lecturer in the NDU Faculty of Humanities. This comes in the framework of the endeavours of the Department of Mass Communication in promoting cultural and intellectual activities, with the cooperation of the NDU Public Relations Office. The film shown at this first projection was *The Graduate*, starring Dustin Hoffman. *Annie Hall* and *A Streetcar Named Desire* were due to be shown on

Radio/TV Studio

October 25th and November 15th respectively, to be followed by Mustapha Al-Akkad's *Omar Al-Mokhtar* on Thursday, November 24th, *One Flew Over the Cuckoo's Nest* on Tuesday, November 29th, and *Tourbillon* (Arabic) on Tuesday, December 13th.

At the launching of the series, NDU Director of Public Relations Mr. Suheil Matar insisted that the University was very keenly interested in such activities, which it considered to be a vital element of academic formation, for they led to greater cultural and intellectual awareness and literary and artistic good taste.

From the Sports Office **NDU Honours Outstanding Athletes**

On Friday, 14th October, 2005, the NDU Sports Office wound up its campaign for sporting activities launched at the commencement of the new academic year during which students registered according to their preferences and to their free time. On this occasion, students presented a variety of athletic and musical performances to a large crowd of members of the administrative and teaching staffs.

► *John Abd El-Nour surrounded by (left to right) Mr. George Nader, Fr. Beshara El-Khoury, Mr. Elie Boutros and Fr. Boulos Wehbe.*



Further, the University honoured certain outstanding athletes in recognition of their efforts and devotion in the sporting field. Representing NDU President Father Walid Moussa, Father Beshara El-Khoury presented a commemorative shield to the student John Abd El-Nour, member of the Lebanese national basketball team, together with an NDU scholarship for one academic year.

Father El-Khoury then delivered a speech in which he stressed the NDU President's attachment to the

importance of sport, to be expressed in the completion of the University's sporting facilities and in his absolute support for raising the level of sporting achievement in Lebanese universities. He also thanked the Sports Office, represented by its Director Mr. George Nader, for its efforts and activities throughout the current year.

Also, Father Boulos Wehbe, Director of the Student Affairs Office, presented a commemorative shield to the student Ms. Lina Rahme, who gained a bronze medal with the Lebanese Cycling Team in the Arab Championship and is currently ranking first in the local Lebanese Championship.



▲ *Lina Rahme with (left to right) Mr. George Nader, Fr. Beshara El-Khoury, Mr. Elie Boutros and Fr. Boulos Wehbe.*

NDU Autumn Tournament

The following are the results of the NDU Fall Sports Tournament, which ended on 28th October, 2005, marking the new scholastic year. A number of universities participated in the games of table tennis and chess. ►►



Table Tennis:

Forty men and sixteen ladies took part.

Men:

- | 1st *Rashid Elboubou* *Institute of Business Administration and Computer Science*
- | 2nd *Alfred Najm* *Institute of Business Administration and Computer Science*

Ladies:

- | 1st *Christiane Jalkh* *Lebanese-American University, Beirut*
- | 2nd *Patricia El-Hajj* *American Institute of Science and Technology*

Chess finals:

Sixteen university teams took part.

- | 1st *Lebanese-American University, Beirut* **14 points**
- | 2nd *Institute of Business Administration and Computer Science* **13 points**
- | 3rd *The War Academy* **12.5 points**
- | 4th *Notre Dame University-Louaize* **12 points**

Individual results

First rank	Serge Hovanian	4.5 pts. LAU, Beirut
Second rank	Jacques el-Shamy	4.5 pts. The War Academy
Third rank	Elie Aboujaoudeh	4 pts. NDU
Fourth rank	William Matar	4 pts. NDU
	Krikor Oukananian	4 pts. Haigazian



▲ *Fr. Beshara El-Khoury and Mr. Michel Rizkallah (Table Tennis Instructor NDU) giving the Table Tennis winner's cup (men's).*

Awards were distributed by **Father Beshara El-Khoury**, Associate Director of Student Affairs, representing NDU President **Father Walid Moussa**, who welcomed the various representatives of Lebanese universities and insisted on the excellent organisation of the Tournament and fine competitive sporting spirit, before handing out the cups and medals to the winners.

The Tournament was supervised by NDU Director of Sports **Mr. George Nader**, assisted by **Mr. Elie Boutros**. The Table Tennis tournament was supervised by the international referee **Mr. Michel Rizkallah** and the Chess by the international referees and officials **Hassan El-Jindv** and **Fady Eid**.



◀ *Awarding the Table Tennis winner's cup (ladies).*

Christmas

NDU

Christmas

o | I proclaim to you Good News of great joy – for today a Saviour has been born for you.

– Luke 2: 10, 11

This was the text that inspired the Christmas activities of the NDU clubs.

Off-campus, during the month of December and into January they undertook welfare projects related to the feast. Each club chose one of the following associations to receive its support: Al Youbouh, Anta Akhi and *Message de paix* for the handicapped, the Roumieh prison for young offenders, an SOS village for the adoption of an orphan, the Bird's Nest and Rabitat al-Mahaba orphanages, Mar Zakaria for social cases, and Al-Makfoufoun al-Loubnanioun for the blind, as well as certain families in need and elderly people. With three of these associations the activity was done in collaboration with the NDU Pastoral Work. The Lebanese Blind participated in the Christmas Fiesta by the sale of some of their handiwork.

Club members, accompanied by the SAO Activities Officer, had already visited some of the above and it is intended to continue the contacts after the Christmas vacation.

On Campus, the Christmas Fiesta was held on December 20th and 21st. Despite the tragic events that have recently brought sorrow to Lebanon, there was an active and eager participation in this event, various items being sold on the club stalls and an outline being given of the individual clubs welfare projects. December 21st was a very cheerful day on-stage, with SAO greetings, releases of balloons and music from the club bands all contributing to the festive fun. At the end of January token certificates, gold, silver and bronze, will be given to the three clubs whose activities stood out the most.

There was a contest for all the clubs to produce the "best computerised animated Christmas card", the latter being distributed in the name of the SAO and the winning club. The winner was the Social Club.



▶ Civilized Driving Club



▲ Advertising Club.



▶ Student gathering.

Social

The NDU division of computing services is proud to announce the birth of ELIE KHALIL, son of Nazih Khalil, System Analyst & Programmer in the Division of Computing Services - Main Campus. Born on Sunday, July 31st, 2005-12:30 a.m..

Congratulations to the parents of the newborn baby.

Armen A. Balian, Head
Academic Computer Center,
Blackboard Administrator



▲ Elie Khalil



▲ Christina Eid

The NDU division of computing services is proud to announce the birth of CHRISTINA EID, daughter of Ziad Eid, Head of Academic Computer Center - Shouf Campus. Born on Saturday, July 30th, 2005.

Congratulations to the parents of the newborn baby.

Armen A. Balian, Head
Academic Computer Center,
Blackboard Administrator

Marriage

NDU *Spirit* has great pleasure in announcing the marriage of Ms. Lydia Zgheib of the NDU Publications Department to Mr. Jean Chidiac. The wedding took place at the Franciscan Latin church of St. Anthony of Padua at Daraoun, near Harissa, on Saturday, November 19th, 2005. Our very best wishes!

Discovering the “Paradise of Kartaba”

Dr. Tanos G. Hage, Chairperson, Sciences Department, NDU

Recently the students enrolled in Ecology (BIO 314 / ENS 203) and I had the opportunity to discover a natural “paradise” in Lebanon. Ecology is a branch of biology that studies the relationships between organisms and the environment, and what better place to observe and study these relationships than the rich and beautiful landscapes of Lebanon? Therefore, I decided to take my students on a field trip to provide them with a lively and hands-on experience related to the topics discussed in class.

○ | Planning the trip

The first question was where to take my students; it was really difficult to make a choice in view of all the magnificent natural areas in Lebanon. Therefore, I decided that the best way to deal with the problem was to ask the students to select from a variety of locations spanning the whole of Lebanon, each representing a different ecosystem.¹

One very enthusiastic student said in a pitched voice: “Sir, you have not included Janet Kartaba in your list.” To tell the truth, although I have visited and hiked in many places in Lebanon, I had not been to this place and

furthermore the name really intrigued me since Janet Kartaba literally means the Paradise of Kartaba in Arabic. The following lecture, my student brought me digital pictures of Janet Kartaba, the kind of pictures shown on LBC at the end of the evening news.

I instantly decided that this would be a good place to visit. First, I had not been there before. Second, it would satisfy the passion of the student to share this place with the rest of the class. Once the decision was made to visit the “Paradise of Kartaba”, I made the necessary arrangements with the administration to provide us with a means of transportation.



▲ A boulder creating a special microclimate needed for the survival of many organisms.



▲ Dr. Hage with his students.



▲ The paradise at its best.



▲ A shrub growing in the middle of a rock.

○ | The Route to the Paradise of Kartaba

On Saturday, October 29, 2005, we met at the entrance of the University to board the bus which would take us to the valley of Nahr Ibrahim, where *Janet Kartaba* is located. From the University we took the Beirut-Tripoli highway north towards Nahr Ibrahim, crossing over the river, before making a right for El-Machnaqa. The road goes uphill first and then drops down along the crest of the ridge looking over the Nahr Ibrahim valley. Here we reached the village of Fatre, and from there we kept going up along the ridge of the north bank of Nahr Ibrahim until we reached El-Machnaqa. A major junction exists at El-Machnaqa, left takes you north to Laqlouq, straight takes you to Kartaba and right takes you down the hill to Frat and then to the paradise of Kartaba, the paradise valley which runs along the banks of Nahr Ibrahim.

It is no wonder why this location is called a paradise; the vista is absolutely fabulous along the bottom of the valley, with the running water and the variety of trees growing along the banks of the river. The importance of rivers to human history and ecology

is inestimable. It comes as no great surprise then that one of the timeless Phoenician myths is the legend of Adonis which is associated with Nahr Ibrahim. Every spring the rains erode red soil from the valley to color the river. The legend has it that this is the blood of the slain Phoenician god Adonis and that it also colors the red anemones that flower in the spring on top of the hills overlooking the river. This is a symbol of fertility and renewal of life.

○ | Exploration of the Paradise Valley of Kartaba

As we were going down towards the paradise valley from El-Machnaqa, the landscape was very green, with Aleppo pine (*Pinus halepensis*) being the dominant tree interspersed with oaks (*Quercus spp.*), pistachio (*Pistachia palestina*) and carob trees (*Ceratonia siliqua*). I was particularly taken with a magnificent example of the shrub *Arbutus andrachne*, with its beautiful small red berries, which was growing in the middle of a rock.

When the bus stopped at the bottom of the valley and we prepared to

embark on our journey along the river, I asked the students to be vigilant and good observers of nature. I especially wanted them to point out every plant and animal on our way and to try to discover the connections between the living organisms; after all, this is the major emphasis of the discipline of ecology.

One of the first things we saw upon leaving the bus was a collection of impressive boulders. One of them was especially large, with a very flat surface on one side, looking as if it were cut to create a wall, although it was in fact a natural formation. Boulders create a special microclimate required for the survival of some plants and animals.

Then a few students spotted some caves and expressed a desire to go down and explore these areas. One particularly interesting plant we discovered covering large areas near these caves was the vine *Smilax aspera*, with its clusters of red fruit, in addition to many types of grasses and wild pink carnations (*Dianthus sp.*). On our way out, I stopped to show the students the seeds inside a pod. The moment I opened the pod, however, grey

dust billowed out and we saw hundreds of worms swarming inside the pod. This is an excellent example of herbivory where plants are the producers and worms are the consumers of the food.

Then we crossed a stone bridge to head upstream north along the other side of the river and saw a jeep carrying cut wood. It made me very sad to see this, given the massive deforestation which is currently taking place in Lebanon, and which in turn is contributing to the beginnings of desertification. As we continued on our way, we observed that willow (*Salix spp.*) and plane trees (*Platanus orientalis*) are the predominant trees in the flood plain of the river. Interspersed with these trees are the judas tree (*Acer siliquastrum*), the styrax tree (*Styrax officinalis*) and even a few maple trees (*Acer syriacum*).

This whole area along the river is a riparian zone. A riparian zone is a transition between the upland terrestrial environment and the aquatic environment of the river. Because they inhabit this transition zone, riparian organisms are adapted to periodic flooding. In fact, many riparian species not only tolerate flooding but require it to remain healthy and complete their life cycles.

Some of the organisms most dependent on the natural cycle of flooding and drying in riparian zones are the trees that form the dominant structure of riparian ecosystems. In fact, the trees previously mentioned are seen only around the contour of the river and disappear as we go away from the river. From above it appears as if somebody deliberately planted the trees along the bed of the river.

This is what gives the paradise valley of Nahr Ibrahim its special beauty, particularly in the fall with the changing colors of leaves. This ecosystem supports a very large proportion of biodiversity, particularly among birds, reptiles, amphibians and invertebrates, such as butterflies and ground beetles.

As we were walking we observed many rocks covered with mosses and lichens. Lichens are of particular significance to the students of ecology. Lichens consist of an association between a fungus

and an alga. The relationship between the fungus and the alga in lichens is a peculiar one. The algae photosynthesize and provide the source of food for the fungus; on the other hand the alga obtains water and minerals from the fungus. This relationship is mutualistic, in that it benefits both organisms. Neither the fungus nor the alga can exist alone on barren rock, however together they flourish. The lichens are pioneers in plant succession, especially on bare rocks where other organisms can not survive. The lichens help in the disintegration of rocks, which assists in soil formation, the first step needed to establish higher plants. Lichens also act as great bioindicators for atmospheric pollution because they bioaccumulate large amounts of air pollutants in their bodies, especially sulfur from sulfur dioxide gas, which is primarily created by burning coal and other fossil fuels.

As we progressed upstream along the river, we noticed the growth of wild figs (*Ficus carica*) and edible wild



▲ A natural landscape.

▼ A huge oriental plane tree (*Platanus orientalis*).





▲ A shrub growing in the middle of a rock.

blackberries (*Rubus sp.*). Also we saw large aggregations of *Pteridium* ferns. One interesting thing about the *Pteridiums* is that their spores are born on the underside of the leaves. The spores are different from seeds in the fact that they are asexual reproductive structures whereas seeds are sexual reproductive structures. We also noticed the presence of the spiny shrub *Poterium spinosum*, which is an indication of low soil fertility.

In some parts of the river the water runs in cascades, forming white foam as it moves over rocks; this process is very important for aquatic life because it aerates or puts oxygen into the water, which is required for aquatic forms of life. In many areas along the river there are wetland habitats, which include plants such as ferns, *Typha spp.*, horsetails (*Equisetum sp.*), and wild mint (*Mentha sp.*).

Along the way, we were impressed by an old, tall (around 6 m.) oak tree (*Quercus calliprinus*), with a single stock, near a small old church. In fact, this tree covered the church. It is

interesting to note that most of the *Q. calliprinus* in the area are shrub-like and do not exceed 2-3 meters, which does not represent the natural growth patterns of this tree. The shrub-like appearance is the result of the vigorous sprouting that happens after excessive cutting, burning and overgrazing by livestock. The reason why we have such a tall tree near the church is probably because it has been protected. Even so, near the church along a pathway there was wild *Juniperus oxycedrus*, whose growth had been stunted by overgrazing.

Near where we stopped for lunch, some students and I ventured into more wild and difficult areas to walk. Our reward was the opportunity to observe some really beautiful flowers, including lilies, daisies and a rare form of *Cyclamen* that I was not able to identify because it was not at the flowering stage. Hopefully in the spring I will be able to go back to verify whether this is the endemic² and rare species of *Cyclamen libanoticum*. Also we saw a huge *Platanus orientalis* tree with a diameter of more than 1.5 m

and inside of which was a hive of yellow-jackets.

Associated with the plants we saw were different kinds of invertebrates, including insects, and reptiles, amphibians and birds. We did not see any mammals in the area, probably because of over-hunting. What was interesting about the animals we did see was that they blended well with their environment, making it difficult to locate them; this was especially true of the insects. The only way we could see some of them was when they moved. One very observant student saw a tiny brown frog, not exceeding 2 cm in length on the ground. I tried to take a picture of it in its habitat, but could not do so because there was no contrast. So I put it on my hand and another student took a picture.

We walked upstream for around two hours before



▲ A tiny frog on the palm of Dr. Hage.

turning around to return to the bus. The more adventurous, however, can continue hiking upstream to Afqa, the source of the river. But then, according to Frank and Laure Skeels, in their book *Highways and Byways of Lebanon*, the road becomes more wild and impressive.

○ | Threats to the Riparian Ecosystem of the Paradise Valley of Kartaba

The human interference in the natural balance of this complex ecosystem was clearly evident in many areas. For example, we saw many cut trees, especially *Platanus orientalis*. In addition, we noticed an algal bloom in the river near an orchard of persimmons (*Diospyros kaki*). It is probable that the algal bloom is due to the leaching of nutrients resulting from the over-use of fertilizers in the orchards. We also observed that the further upstream we traveled, there was a marked decrease in algal bloom, indicating less dumping of nutrients into the river. Also, in many locations we observed the carvings by visitors, mainly on old trees. This practice prevents the transport of organic compounds, primarily sugars, to sink areas such as the roots. In fact, if the stem is ringed the whole tree may die.

In several locations we saw large amounts of garbage left by visitors, including broken glass. This may start fires, especially during the summer when the vegetation dries up. In fact we saw several burned areas along our path. We noticed one location where a group of Judas tree seedlings were growing amidst the ash left after burning of the area. Judas trees brighten our valleys with clusters of beautiful bright pink flowers in the spring. The Judas is considered to be the tree that Judas hanged himself on.

In some locations we noticed new roads being carved over the hills above the river, a practice which is aggravating the problem of soil erosion. In addition, we heard several reverberating explosions in the valley, probably because of quarrying. Finally, we noticed the droppings of goats in many locations, an indication of grazing in this area. Grazing by goats is one of the greatest threats to plant biodiversity in Lebanon, because they are voracious animals and can reach places which other grazing animals can not.



▲ Fall at its best in the paradise.

This was a very relaxing and educational trip, of a kind where one meets the living organisms that we share with our mother earth. Biologist Edward O. Wilson, American Academy of Sciences member, believes that most people seem to have an inherent affinity for the natural world (Biophilia) and feel obligated to protect the earth's biodiversity. This is probably due to billions of years of interactions among organisms, including humans. Every time I wander in nature, away from urban areas, I feel this love of nature and I remember my grandmother – a naturalist and herbalist – and the trips we had together exploring every flower and plant in our beautiful mountains. I hope that I can instill in my students a sense of responsibility and stewardship towards our endangered environment, the same way my grandmother did for me. I got my reward when one student told me at the end of the trip, "Thank you sir for a wonderful day, this was a trip to remember!"

¹ *Ecosystem: a biological community plus all the abiotic (non-living) factors influencing that community.*

² *Endemic: a term applied to populations or species that are found in a particular locality, for instance an island, and nowhere else.*



Is Genetically Modified Food Safe?

Wassim E. Beaineh

In 2000, scientists discovered the whole genome of the human being, and it was with some surprise that I learnt that doctors could use genetic engineering, which is a laboratory technique used by biologists, to change the DNA of living organisms and to allow parents to select the characteristics they desired in an unborn child. But the history of genetic engineering started in 1987, when many Genetically Modified Foods (GMF) were introduced into the markets of the United States and Europe. "Genetic Engineering of food is a modern molecular-biology technique identified, cloned and inserted into a plant. Genes can be transferred and multiplied by conventional techniques." (Rowland, 2002, p. 26) As the science of GMF continues to grow and flourish, society is faced with many issues. Is it true that GMF is safe? I believe that genetically modified foods are not healthy and may have harmful effects on their users and the environment.

The safety evaluation of GM crops presents considerable problems concerning people's safety. GMF may be toxic because of the high rate or level and specificity of expression of the introduced genetic material. "We must consider the possibility of unexpected changes in plants," says Doug Gurian-Sherman, Science Director of the Biotechnology Project of the Center for Science in the Public

Interest (CSPI). Also, the insertion of genes into a plant chromosome could trigger the expression of a neighboring gene that was previously present but not expressed. (Rowland, 2002, p. 28) The full ramifications of modified genes "escaping" and mixing with unmodified ones are unknown. Cross-breeding by farmers and evolution by Nature have always involved gene transfer between similar species, not completely different species such as a fish and a potato. This point makes us more attentive to allergenic diseases, which can be harmful to our health. "Modifying the genes could introduce a new allergenic substance into the food supply," says Perry Adkisson, Ph.D., University of Maryland. So if anyone takes these risks into consideration, he can see that thousands of people may be affected. (Howard, 2003, p. 3) A new study shows that seventy to seventy-five per cent of genetically engineered foods contain harmful biotech ingredients. Thirty-five per cent of people who eat GMF in the United States are subject to allergies coming from the reactivity of the introduced protein with immunoglobulin E. For example, peanuts and Brazil nuts are sources of allergenic nutrients and cause asthma and a predisposition to food allergy. (Walters, 1999, p. 90) According to the United States Department of Agriculture (USDA), forty percent of the nation's corn is a GMF; when a single gene is altered, it

will create a new bacteria-gene called "Bt" that causes corn to produce a toxin. This toxin may lead to eczema and immuno-allergy. (Howard, 2003, p. 5) I think people must be more careful in eating these kinds of foods because the long-term effects are still unknown and in the future we may discover wider effects such as cancer and many others.

Another reason why I consider genetically engineered foods dangerous is that there has been no adequate testing to ensure that extracted genes that perform a useful function as part of a plant are going to have the same effects if they are inserted with totally unrelated genes. We cannot know at this time whether or not GMF are safe, due to the lack of safety testing. "The testing that has been done is often to ensure that the crop grows. There has been less emphasis on testing the effects or testing the wider ecology and the associated impacts," says Jeremy Ritkin, the American critic who has served as consultant to EU leaders on biotech issues. (Greider, 2003, p. 5) We can

find some projects to test the safety of GM crops such as SAFOTEST and ENTRANSFOOD; unfortunately, they are still in their infancy. These projects present problems both in conduct and in interpretation of experimental studies because toxicity tests used in the evaluation of simple chemicals may not be appropriate for whole foods. (Fox, 2001, p. 32) A good question can be asked, namely where is the hard science that proves whether or not there is any risk? This is the hardest question, one to which we do not find a suitable answer.

While GMF have many bad effects, it must be conceded that from a business point of view they are more favorable, and a great deal of money and profit is involved in this. The industry of genetically modified food has led to an agricultural revolution and a huge increase in yields. According to the United States government, eight GM crops have been calculated at more than 21 million kg in the year

2001 alone. GM also increased yields by about one billion kg, saved more than one billion dollars in production costs and reduced the use of tillage in agriculture. (Roush, 2004, p. 9) Africa is likely to be the greatest beneficiary from GM crops in the future. Although there are problems with food distribution in Africa, the costs of improving the transportation system in Africa are enormous. Further, it is a key to the economic welfare of individual African farmers being self-sufficient. In the long term, GM crops still have a potential for addressing major issues such as nitrogen fixation, which can help counter soil acidity, worsened by the addition of the fertilizers that agriculture needs in order to maintain its productivity. (p. 11)

One of the most important reasons why I do not support GMF is the risk of losing Nature's biodiversity. With the rapid increase in productivity and profits, the diversity of the crops used is being reduced. And if the diversity is reduced, the benefits of diversity such as resistance to disease, greater ability to deal with environment and increased yields will also be lowered. At this point, the non-resistance to disease obliges greater use of pesticides, whereas our goal is precisely

to decrease their use. Companies that manufacture pesticides are also the very ones that also make such GM food products as Round-up Ready GM Soybeans and Monsanto. (Kolodinsky, 2000, p. 72) The decrease of biodiversity in crops will lead to "genetic pollution" in the future and thus more genes will be hidden and will not express so well as before. Genetic pollution will hasten the change in the genetic stability of the modified organism and in all the nutritional information. (p. 75)

Finally, it is obvious that genetically altered foods are not safe. It is the responsibility of consumers to protect themselves and to take more precautions, reading the labels and lists of ingredients such as corn oil, corn starch, corn syrup, soy protein, and lecithin and canola oil. (Fox, 2001, p. 32) Moreover, consumers can eat fresh fruits and vegetables which are not GM and try to buy organic products. As consumers we really need laws and rules for higher standards in order that new technologies and commercial products such as GMF are proved safe before they can be marketed. We have to look to our future, not only to our present time when everything goes fast and easy.

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To keep the faith – Home is not enough!

K.J. Mortimer

While taking a short holiday on the heights of Kesrouan, at that moment wrapped in the glory of the rays of the setting sun, I was discussing the need for religious formation of our youth with a certain zealous young priest. I suggested that the years spent in a university were decisive, while my clerical friend insisted on the overriding importance of home.

Frankly, he did not convince me. It was not that I actually disagreed with him about the importance of the home. There was an English cardinal by the name of Vaughan in the nineteenth century whose mother had spent an hour every evening praying that all her children should become priests or nuns; four sons became priests, the two others entered a seminary but returned to lay life and all three daughters became nuns. In fact most saints and most good priests, monks and nuns have come from good Christian homes. But there is no rule.



Simple reliance on home influence seems to come from a narrow sectarian view of religion. One's religion is too often seen as a tribe whose numbers have to be maintained by inheritance and whose blood-line must be kept pure, untainted by that of outsiders.¹ But there is always a leakage, a steady draining away of lost sheep, which has to be made up from the numbers point of view. And the fact is that not all so-called Christian families are good. Many are mediocre and some are rotten to the core. Western materialism is no longer merely Western. It has invaded the whole world and is already well entrenched in Lebanon, where more than anything else it threatens all the precious social values.

Unfortunately, the chief influence in most homes nowadays is television. Advertisements for cars show them being driven at impossible speeds on empty roads that certainly do not exist in Lebanon; the advertisements do not show the cars being driven with care



and respect for other motorists through rush-hour traffic! Once upon a time children were taught polite table manners and enjoyment of food through moderation, but now television teaches them greed, a good training for obesity. When one sees children arguing with helpless mothers about their food on TV one only wishes their mothers would give them a good spanking. The music clips show young blacks and whites of a criminal underworld against a slum background with songs of violence, revolt, debauched sex and even Satanism. With such role-models presented to them, one can hardly complain if blacks in the West turn to crime and disorder, or are treated with suspicion and contempt. Once upon a time in order to dance one learnt strict rules of courtesy and etiquette. "Education" is reduced to learning how to use a computer and schools are no longer expected to teach discipline and good conduct.

Further, in these times of rapid change and development, when a paternal frown no longer brings cowering obedience, when rare are the children who

spend their whole lives in mountain village communities, very few parents have the level of religious knowledge needed to prepare their children to go out in the world. Even in the great cities of our age, otherwise educated Christians pass their lives with an infant-school level of religious instruction. It is not enough to have a mother who is a veritable *grenouille de bénitier* (holy water frog) as the French say and who fills every shelf in her house with horrible sickly pious pictures (*art de St.-Sulpice*).² Many are lost to the faith because they cannot reconcile their natural drive with the impression received from their parents that sex is by nature evil and that marriage is a sort of toleration of sin. One mother I knew was shocked that her daughter should want to marry in the month of May, sacred to Our Lady. Unfortunately, very few people read the Old Testament, the Gospels or the epistles of St. Paul to learn how marriage is holy and its pleasure willed by God.

Many parents make religion a solemn, serious matter, a tedious bore, a matter of "don't do this and don't do that", so it is scarcely surprising that their children should throw off all restraint once they are free of parental authority. This reaction against the Calvinist streak in

Protestantism may explain the collapse of religious practice in Northern Europe a century ago. Church attendance, often twice on Sundays, was obligatory and sermons often two hours long, generally about the eternal punishment that awaited most of the congregation after their death. On Sundays, all the children's toys were locked up in the cupboard and all play and laughter forbidden, while the silence of the tomb descended on the house.

My London parish priest was brought up in a Catholic family full of the joy of the Resurrection and the Gospel message – in 1949, when over ninety, his father attended the golden jubilee (50 years) of the ordination of his two sons. However, the children had one aunt of strict Reformed tradition. Once when Christmas fell on a Sunday, the adults and children were romping about but noticed their aunt sitting in stony silence. "Why don't you come and play and have fun with us?" they asked. The crushing answer came in sepulchral tones, "Those that laugh on earth will howl in Hell!" Even in Lebanon many older people may remember religious fear being used by teachers of a less educated generation to impose discipline in school.

But there is another aspect to the whole question. Christianity, Islam and Buddhism are missionary religions, each intended for all mankind.³ Of course, there are the "Fundamentalists", whether in Washington or Waziristan, who see religion in terms of war of their community against the infidel. A Fundamentalist is a person who ignores the fundamentals of his religion and replaces them with some personal

obsession. Salman Rushdi has pointed out (BBC, September, 2005) that nowadays more and more people seem to define themselves by what they hate. As far as Christianity is concerned, it is invidious to pick out texts here and there; simply the whole Gospel is missionary, burning with love for all humanity. It is impossible to read the New Testament with an open mind and come to any other conclusion. "Going, therefore, teach all nations..." (Matthew XXVIII, 19)

We do in fact see that there are many who have strong religious convictions, yet were not raised in a religious home. I know a Muslim who is a model of Islamic piety as well as generosity and professional integrity although his father was a prominent member of a basically atheist political party. Dr. Sherwood Taylor was an eminent Oxford University scientist and well-known atheist intellectual who became a zealous Catholic propagandist as a result of studying the Galileo case. Many defenders of Christian belief, such as G.K. Chesterton and Sir Arnold Lunn, have been converts who wished by their writings and speeches to pass on their new-found treasure to others.

In my own case, I was brought up by grandparents in a home where my mother, a convert to Catholicism, could have little influence. My grandfather was a typical example of late Victorian religion, what might be called Low-Church Anglican, imbued with a deep suspicion of Popery but at least with the virtue of tolerance for what he disapproved. He had a huge "Family Bible", which he opened only to amuse me with the engraved illustrations. He was of extreme moral rectitude, having

resigned in World War I from a military defence force because other members had sung a dirty song. Yet he never actually went to church, prayed or mentioned religion. My religious faith is something I owe entirely to a providential visit to the local parish church, where again apparent coincidences led me to meet the priest, whom I addressed as *Sir* instead of *Father*, thus awakening his concern. This holy man became the decisive influence in my life.

In Britain and America during and after World War II, many who had been brought up in religious ignorance and indifference found their faith as a result of military service in the armed forces, where they were impressed by the example and arguments of prayerful friends. At the British Air Force base at Habbaniya in Iraq, with the support of an excellent chaplain, a number of airmen who attended daily evening Mass led friends to the Church and these on their return to Britain themselves became plunged in religious activity. Incidentally, at this time seminaries and monasteries were crowded out with ex-soldiers who had seen the hapless state of unbelievers and wished to be missionary by prayer alone or by prayer and action.

No less than twelve quite irreligious businessmen were led to God by a stock-broker I knew, a controversialist of burning missionary spirit, I believe himself a convert. While others thought of missionary work as something done in Africa or Asia, he was obsessed by the need for re-converting Britain to Christianity.

In order to keep one's faith in a world which is for all practical purposes

atheist, one needs to know the reasons for one's faith so as to be able to preserve and foster it. Most people imagine that faith is something blind and that the reasons for it must not be questioned. I was very pleased when His Eminence Justin Cardinal Regali said to an NDU audience that every Christian should consider himself a missionary with the duty of influencing those around him. But to do this one must be properly prepared. In most cases a young man or woman is cast in his final intellectual mould during the late 'teens or around the age of twenty. Therefore in the terminal classes Christian schools should give a course of Apologetics, that is to say the philosophical, scientific and historical reasons for belief in God, His Revelation, His moral law and His Church. In this way the young person will be able to resist the temptations of the world and the doubt that creeps into the soul when surrounded by materialism and mockery of God, when suffering from discouragement and depression, especially when studying in other countries.

He will soon have the urge to enlighten others; for this he will need to deepen his understanding of his faith by reading and by discussion and to lead a life of prayer, for no work for God can be done without His help, that is to say without the action of the Holy Spirit. Love and care for those who know not God will deepen his own spiritual life.

What is more, he will direct his natural desires to founding a deeply Christian family with a partner chosen for Christian virtues. Love for God means love for souls both within the home and in the outside world.

To keep the faith
Home is not enough!



- | ¹ In fact this tribal view of religion is the enemy of religion, as can be seen in the Balkans and Northern Ireland.
- | ² Eastern iconography is far more instructive. Many people confuse the Immaculate Conception with the Virgin Birth. The icon of Youakim, Anne and their daughter Mary shows Youakim placing his hand on the shoulder of his wife, a subtle way of indicating that the conception of Mary, unlike that of her Son, was carnal. But many western "pious" pictures are enough to turn anyone off religion.
- | ³ This of course is not the case of Judaism, a fact which tends to vitiate dialogue, particularly with those who are Zionists, for lack of common ground to start with.

Père Léonard Melki Un nouveau Cèdre du Liban:

Début du procès de canonisation du Père Léonard Melki, Capucin Libanais et Martyr du Génocide des Chrétiens d'Orient pendant la première guerre mondiale.



Le 6 novembre 2005 a constitué une date singulière dans les annales de l'histoire de la ville de Baabdate. En effet, le matin du 6 novembre après la messe dominicale de 9 h.30 en l'église Saint Antoine, le Père Florio Tessari, Postulateur de l'Ordre Capucin annonça devant une centaine de fidèles l'ouverture officielle du procès diocésain pour la béatification du Père Léonard Melki. Dans une allocution prononcée après la cérémonie religieuse, le Père Tessari, d'origine italienne, a déclaré dans un français hésitant : "Nous sommes là pour ouvrir le procès canonique diocésain pour le martyr Père Léonard. C'est un procès historique. Nous devons recueillir tous les documents qui parlent de lui".

La foule, constituée d'une centaine de fidèles, était très touchée par l'allocution du Père Florio. Certains des fidèles étaient des proches-parents du Père Léonard.

Le Père Florio était muni d'un *Nihil Obstat* de la Congrégation pour la Cause des Saints. Il l'a remis à Monseigneur Dahdah, Vicaire Apostolique des Latins du Liban, afin qu'on examine le cas du Père Léonard Melki. Cet examen sera basé sur ce qu'on convient d'appeler "*la positio*", ce qui veut dire en d'autres termes *la cause*. Il s'agit d'un document de 700 pages préparé par le Père Sélim Rizkallah. Ce document essentiel regroupe la biographie du Père Léonard, sa correspondance, et la

documentation qui raconte son martyre en Turquie au cours de la première guerre mondiale.

Ce tribunal devra examiner la *positio* et établir un rapport. Ce dernier sera envoyé au Saint Siège à Rome où un autre tribunal statuera définitivement sur l'affaire. Cette décision finale ne devrait pas tarder, car une partie du dossier (*la positio*) est similaire à celle qui a servi à la canonisation de Monseigneur Maloyan, qui était dans le même convoi que le Père Léonard. Ce convoi de la mort regroupait 417 personnes qui ont tous été martyrisés. La canonisation du Père Léonard ne saurait donc tarder.

Le Père Léonard, de son vrai nom Youssef Habib MELKI, est né à Baabdate au Metn le 4 octobre 1881. Dans ce village dont l'histoire moderne est pètrie de la présence des Pères Capucins le futur Père Léonard décide de rejoindre l'Ordre des Capucins. Le jeune Youssef est alors envoyé au Petit Séminaire de San Stéfano - ce qui constitua probablement un dépaysement pour ce jeune Cèdre du Liban qui quitta Baabdate en août 1897 - où en plus du français, du latin, de l'italien, les étudiants devaient se mettre au turc et à l'arménien, idéal missionnaire oblige. Le 13 juillet, 1898, Youssef pris l'habit religieux et pour nom Léonard en souvenir du Saint Léonard de Port Maurice, célèbre prédicateur du XVIII siècle. Après le noviciat, Léonard, alias Youssef, fut



◀ Le Père Léonard Melki
(nom de baptême: Youssef)
Capucin Libanais.

envoyé au séminaire de Boudja près de Smyrne en Turquie. Il gravit rapidement les échelons du sacerdoce: il reçut la tonsure le 10 février 1910, le diaconat le 24 juillet 1904, puis le sacerdoce en décembre 1904. Et c'est élevé à la dignité sacerdotale que le moine Léonard revint parmi les siens à Baabdate après avoir conquis la toison dorée. Beaucoup plus restait à venir: la toison éternelle sera bientôt au rendez-vous.

Sa première assignation fut à la Mission de Mardine, ville de Turquie où pour une fois les chrétiens étaient plus nombreux que les musulmans et où se côtoyaient catholiques, arméniens et chaldéens. Au cours de cette première mission, le Père Léonard s'occupe parmi d'autre du Tiers Ordre très nombreux dans cette ville: plus de 400. Ses autres activités comprennent l'enseignement et le travail pastoral. Dans cet environnement édifiant et bon enfant, commençait à se profiler l'ombre d'évènements qui allaient ensanglanter la Turquie et tout l'Orient. En effet, un Comité appelé "Jeune Turc" prend le pouvoir. Idéologiquement sectaire, les Jeunes Turcs prétendent régénérer la Turquie à n'importe quel prix, même au prix du massacre de communautés entières. Sous couvert d'appel à l'union et aux progrès, les Jeunes Turcs rétablissent la Constitution de 1876 qui déclarait l'égalité entre toutes les religions de l'Empire ...qui du reste ne fut jamais respecté. Avec le rétablissement de la Constitution, écrit

un missionnaire Capucin, l'esprit de libertinage et d'indifférence religieuse s'introduisit dans toutes les Eglises d'Orient.

Atteint d'un mal de tête "acharné qui ne lui donne jamais de trêve" le Père Léonard est transféré à Mamouretel-azziz mais rien n'y fit; sa santé continuait de se détériorer. Léonard revint passer quelques temps dans son village qu'il devait quitter pour toujours en 1911. Le Père Léonard rentra en Mésopotamie pour s'occuper de la mission de la ville d'Orfa. A l'ombre se proliférait la grande guerre qui devait éclater en août 1914. Les premières vexations contre les chrétiens ne tardèrent pas à commencer: arrestations, interrogatoires, enlèvements, assassinats... Le complot ourdi par les Jeunes Turcs visaient à massacrer les chrétiens d'Orient injustement soupçonnés de faire le jeu des puissances européennes. La méthode des massacres consistaient à arrêter en masse les hommes, en premier les notables, à les diriger vers des destinations inconnues, puis à les disperser en petits groupes avant de les massacrer. Le Père Léonard fut transféré à Mardine. C'est dans l'église des Capucins que le Père Léonard fut arrêté à l'aube du 15 juin 1915. Les soldats y découvrirent un cahier comprenant les membres de la fraternité de Saint François: c'était suffisant pour prétendre que c'était une association française. D'autres

mouchards rapportèrent aux Turcs l'existence de l'association du Précieux Sang, suffisant pour l'accuser de vouloir verser le sang des musulmans!

Le mercredi 9 juin, les soldats sortirent le Père Léonard de sa cellule et se mirent à le battre. *Ils lui arrachèrent la barbe, lui enlevèrent les ongles des doigts et des orteils et le suspendirent la tête en bas environ deux heures, au cours desquelles ils se relayaient pour le battre avec des verges et des batons. Ils lui disaient: "Appelle la France pour qu'elle se hâte et vienne te tenir compagnie. Convoque tes amis pour qu'ils viennent te sauver." Mais le doux Père garda le silence, se confiant entre les mains de son Seigneur. A la fin, ils le basculèrent dans l'escalier, où il s'évanouit. Dieu seul sait ce qu'il endura de souffrances et de tortures de toute sortes".⁽¹⁾*

Un autre témoin, le P. Hyacinthe Simon, nous parle des souffrances du Père Léonard: "Citerai-je le Père Léonard de Baabdate, missionnaire capucin, libanais de nationalité, qui dut boire tout un calice d'ignominie? Et pourquoi? Parce qu'il était le

directeur de la Confrérie du Précieux Sang. La signification de ce mot "Précieux Sang", Mamdouh bey la restregnit au sang des musulmans, dont le dit missionnaire convoitait et prêchait et favorisait la plus abondante effusion. D'autant plus que l'on avait trouvé la liste des membres de la dite confrérie affichée à la porte de l'église capucine. C'était donc bien une association plus que séditeuse et nuisible. Elle cherchait plus que les troubles de l'Empire, elle réclamait son sang. Et voici notre P. Léonard accablé d'injures et de crachats et de coups. Mais il tint ferme. Mamdouh bey massacrait le P. Léonard, le P. Léonard bénissait Mamdouh bey."

D'autres chrétiens subissaient des massacres, à la tête desquels figuraient l'évêque arménien Mayolan, qui devait connaître le martyr à coté du Père Léonard. Après leur refus une fois de plus d'abjurer la religion chrétienne, le sort des 417 chrétiens était arrêté. A l'aube du 11 jeudi, le convoi devait quitter la ville de Martine vers son ultime destination: la mort. Le même témoin oculaire, P. Hyacinthe Simon, rapporte: " Le cortège

funèbre s'avance lentement et en silence à travers les rues de la ville...Plusieurs portaient les chaînes aux bras, quelques uns même avaient le cou assujéti par des anneaux de fer. Tous étaient encadrés de cent soldats dans la milice...On vit aussi le P. Léonard, capucin, brutalement frappé, lors de son passage devant son couvent...C'est lui qui eut l'honneur d'ouvrir le cortège, ayant à ses cotés deux tertiaires fransiscains. On vit enfin Mgr Maloyan, nu-tête et pieds nus, les fers au cou, fermant la procession, entouré de deux policiers..." (3)

"Après leur refus une fois de plus d'apostasier, le massacre pouvait commencer. Les malheureux furent divisés en petits groupes. Certains furent emmenés près de la citadelle nommée Zarzawane. D'autres furent conduits au lieu dit "Grottes de Cheikhane". Ils furent exterminés jusqu'au dernier. Leur mort fit l'admiration des kurdes eux-mêmes. "Jamais, dit l'un d'eux, nous n'avons vu pareille fermeté religieuse. Si pour des motifs analogues, les chrétiens se jetaient sur nous, nous nous ferions tous chrétiens à leur demande."

Maloyan et Léonard - de même que tous les martyrs des massacres de Turquie de cette époque - sont considérés à juste des martyrs. D'ailleurs Monseigneur Maloyan vient d'être béatifié par le Pape Jean-Paul II. (Les Arméniens avaient préféré

présenter le procès de béatification de Mgr Maloyan sans aucun de ses collègues.) Et comme le cas du Père Léonard est strictement semblable à celui du P. Léonard on peut espérer par la Grace de l'Esprit parvenir au même résultat dans un laps de temps très court.

Chaque candidat à la béatification doit parmi d'autres conditions apporter un message à son époque. En d'autres termes, il doit répondre à une attente spirituelle profonde de la société. On peut affirmer à juste titre que le Père Léonard est le martyr de la paix. En effet, son martyre est synonyme de paix, car à l'inverse des "martyrs" qui se font exploser pour assassiner le plus grand nombre possible de personnes le Père Léonard a versé son sang jusqu'à la dernière goutte au nom de la paix et de la justice.



▲ De gauche à droite: Dr. Georges Labaki petit neveu du P. Léonard, le Père Florio, le Père Macimò, Léonard Labaki arrière-petit-neveu du Père Léonard, et Richard Melki devant la maison paternelle du Père Léonard Melki à Baabdate.

► Le Père Florio entouré du Père Macimò et dde quelques membres du "comité de soutien" à la béatification du Père Léonard.



- (1) P.Rizkallah Salim, Un martyr du Genocide Arménien, Léonard Melki, Capucin Libanais, Baabdate, C.P.Selim Rizkallah, 2001, p. 95.
- (2) Ibid. p. 97.
- (3) Ibid. p.118.
- (4) Ibid. p.119.

o | Dr. Georges LABAKI

Carl Gustav Jung

The Spiritual Problem of Modern Man

Saleem Baradhy

Student of Psychology Programme

"The spiritual problem of modern man is one of those questions which are so much a part of the age we live in that we cannot see them in the proper perspective." (Jung, 1950) Oh, but *he* could! Carl Gustav Jung did see the issue at stake from the proper perspective. Perhaps his humility for which he is globally acclaimed is what incited him to inaugurate his essay with such skepticism, and is what constantly causes him to end an essay with even more speculation than can be found in the early passages of the text. Nonetheless, this master physician of the soul in his insights, and profound sage in his conclusions, never ceases to advance a fresh insight into the nature of the psyche, just as he did through his literary work. How comforting it is to read such an introduction to a provoking question, an introduction so moderately cautious that its intrinsic aim is not to showcase the vain achievements of a study, but rather to set its limitations in all modesty and wisdom in its grand sense, prudently declaring that "too many of us already have fallen victim to our own grandiloquence." (Jung, 1950).

Whilst reading the first few lines of the text at hand, one would have the

impression that it is Nietzsche who is behind the quill and not Jung; what Jung is progressively defining as "the modern man" is quite similar to what Nietzsche describes as the "free spirit" in *Beyond Good And Evil* ... Then again, Nietzschean influences in this Germano-Swiss liberator are clearly noticeable throughout his bibliography. "He alone is modern who is conscious of the present." (Jung, 1950) The means to reach this superlative state, according to Jung, is through "the most intensive and extensive consciousness, with a minimum of unconsciousness." (Jung, 1950) Traits of Jung's dislocation from Freud can be noticed by the trained eye in this statement, with Jung shedding more emphasis on the conscious experience rather than on the unconscious itself. Not that Jung is an opponent of the latter notion; on the contrary he is one of its fiercest advocates, notably in the issue of dreams, and more notably in their mythological content and archetypal images. But while Freud unveils the causality of psychological phenomena, Jung attempts to interpret their finality, which is exactly the case here: modern man is not one whose actions are to a large extent governed by his unconscious processes, but one who is somewhat (and I stress the term

"somewhat" on Jung's behalf) liberated from them – again in concordance with Nietzsche's "free spirit"; even more, it seems to border with his "ubermensch" or over-man thoroughly conceptualized in *Thus Spoke Zarathustra*.

Jung further elaborates on the nature of modern man, underlining solitariness as an integral component: for man to be modern he must *a priori* be solitarily introspective at a distance from dilution with the all-too-human herd, an existence as an unconscious denominator whose psychological indicator is Jung's own coined notion of the "collective unconscious" and whose textual description he borrowed from anthropologist Luden Levy-Bruhl – "*participation mystique*". Truly, what better term can properly label this "maternal womb of unconsciousness in which the mass of men dwells." (Jung, 1950) Modern man is meant to tear himself loose from the chained boundaries of this

participation mystique that, though unconscious in terms of psychic placement, is conscious in its expression, as can be seen in any community strata, to borrow Jung's example. Jung keeps pushing the envelope in sculpting the profile of modern man who is expected to not only live in the present, but also "estrangle himself from the mass of men who live entirely within the bonds of tradition, leaving behind him all that has been discarded and outgrown" (Jung, 1950), once more displaying purely Nietzschean preaching that can be found in one particular part of *Thus Spoke Zarathustra* entitled "Of The Old And The New Law Tables".

Just as Jung prudently commenced his article with an honest appraisal of the potential limitations such an inquiry may trigger, he continued in the same spirit by warning against the inevitable rise of copycats – "worthless people, uprooted wraiths, blood-sucking ghosts who give themselves a deceptive air of modernity and whose emptiness casts discredit upon modern man in his enviable loneliness." (Jung, 1950) He carefully employed the term "pseudo-moderns" so as to highlight their insincerity manifested by bypassing the various stages of development and the tasks of life they represent. Again and again, a

similarity may be drawn with Nietzsche when, in the same aforementioned book, he speaks of worms and parasites lurking around the super-man; the higher the latter exalts, the higher the former's expressed envy and attempts (failed at most times) to over-shadow his modernity. What sets the modern man apart from these little existences is, for Jung, a voluntary declaration of bankruptcy, but not a material one of course, rather one whose latent meaning suggests "outgrowing the stages of consciousness belonging to the past, and amply fulfilling the duties appointed for him by his world." (Jung, 1950) in order to achieve full consciousness of the present. What sets him further apart is his proficiency ("achieving as much as other people, and even a little more." (Jung, 1950)) which is repugnant to the pseudo-moderns, for it reminds them unpleasantly of their trickery. But this is the price that humanity is compelled to pay for generating modern men – "every good quality has its bad side, and nothing good can come into the world without at once producing a corresponding evil" (Jung, 1950) – how Hegelian of you, Carl! And on a side note, this is precisely what sets Jung himself apart from fellow theorists; as Hermann Hesse puts it, "he does not stop at the mechanism of the psyche or treat it as natural science but as philosophy, but he is rescued from the tendency to academicism by his experience as a doctor." (Jung, 1974)

Thus, modern man becomes a rarity, a priceless jewel buried beneath deep layers of soil and stone. But this jewel, despite its indispensable solidarity that we previously discussed, was not created *ex nihilo*, just like all things in

this worldly existence; once more, Jung succeeds in adopting the most convening of terms to transmit the idea that modern man is "the culmination of the whole history of mankind, the fulfillment and end-product of countless generations, but also the disappointment of the hopes and expectations of the ages." (Jung, 1950) A turning-point, that perhaps went by unnoticed by most readers of this masterpiece, is unleashed next. Jung, again re-affirming his far-reaching vision, and again resurrecting Nietzsche, speaks out and says: "He is indeed the product of an age-old development, but he is at the same time the worst conceivable disappointment of the hopes of mankind." (Jung, 1950) Modern man has just been demoted from "over-man" to "noon-tide", which Nietzsche also speaks of. The primary elation caused by the captivating description of the modern man given by Jung suffered a cataclysmic fall when his imperfection was then portrayed. Jung eloquently sampled his contemporary achievements, or rather those of all mankind, particularly the issue of war, given the temporal context of the script, proving to us that we are perhaps in an "age of enlightenment" and not in an "enlightened age" as scholars of Kant would like to name it (Kant, 1784). This left Jung skeptical, for all great minds are skeptical. But there is no danger in a great mind being skeptical; where indeed there was danger was when modern man was finally enlightened upon his current status, leading him to suffer an "almost fatal shock, psychologically speaking, and as a result (he) has fallen into profound uncertainty." (Jung, 1950) I, too, have just fallen into a

profound uncertainty of my own: where does this leave Jung himself? Is he a modern man with exclusively a diagnosis and a prognosis of his clan's condition? Or is he just another modern man traumatized by this shocking discovery, furthermore by his shocking self-discovery? Was Jung able to derive this uncertainty through introspection or "extrospection"? I was not able to answer this question of mine, and I will adopt the same stand he himself adopted for his own inquiry by stating that "I am in no way competent to pass such a judgement." (Jung, 1950)

Regardless, Jung carries on illustrating the limitations imposed upon tackling such a controversial question as that of the spiritual problem of modern man, chiefly subjective bias and its deceptive consequences. But he justifies his findings through his practice treating "many hundreds of educated persons, both sick and healthy, coming from every quarter of the civilized white world; and upon this experience I base my statements." (Jung, 1950) Furthermore, he justifies the very postulate upon which his findings are based, namely that of psychology as a whole, where he claims that once man outgrows his religion, then the psyche becomes a factor which cannot be dealt with by the customary measures, and hence is founded today's psychology on experience rather than on faith or philosophy. The psyche that was part of a metaphysical system has become acknowledged by the modern man, and that in itself is what distinguishes modern times (not those of Charlie Chaplin of course!) from others. The rational world order collapses in front of such a might as

the human unconscious (not to speak of the collective unconscious whose repercussions delve as deep as the roots of the history of the cosmos itself), and such a perfect mode of life as fantasized during medieval times has been torn to shreds by the exalted transcendence of psychology into a science in its own right. Hence, "modern man has lost all the metaphysical certainties of his medieval brother, and set up in their place the ideals of material security, general welfare, and humanitarianism (Jung, 1950)", not without a certain amount of threat of course. The threat primarily lies in the monstrous potential of evil that lurks in the abysses of the unconscious, one that we are perhaps disillusioned at times of having the upper hand over, and consequently over the evil of the whole world. But do we really? Not everything psychic for which we have gathered profound knowledge is under our control. But equally, that does not signify that increasing insight into our hopeless unconsciousness aids the process of combating this evil at its human origins, just as Jung himself implies, "in the same way that science enables us to deal effectively with injuries inflicted from without." (Jung, 1950) Another threat, which to some is perhaps considered a successful achievement, is the rapid and worldwide growth of psychological interest that is rendering modern man much more drawn to alternatives of religion. Jung points out a good number of such manifestations, not only in psychology but almost equally in spiritualism, astrology, theosophy, even parapsychology. "The passionate interest in these movements undoubtedly arises from psychic energy

which can no longer be invested in obsolete religious forms," he stated in 1950. Is the prophecy of Nietzsche fulfilled? Furthermore, these movements give themselves a scientific veneer, as Jung continues to notice, signifying that they are in pursuit not of faith, but of knowledge. This is at the very core of the essential nature of modern man's system of thought: to experience the psyche for itself, by oneself. And this is precisely why "there are too many persons to whom Freudian psychology is dearer than the Gospels" (Jung, 1950), which is nothing but history repeating itself, for at the time of the Gospels there were many persons to whom Christian faith was dearer than the ancient scriptures bestowed upon their ancestral prophets by the Almighty. But Jung, in his mystical aura, reiterates once more: "and yet they are all our brothers, and in each of us there is at least one voice which seconds them, for in the end there is one psyche which embraces us all." (Jung, 1950) The collective unconscious emerging once more!

Towards the end of the text, Jung finally states the spiritual problem of modern man that is manifesting itself with the West setting the East in turmoil with its science while the East, with its superior psychic proficiency, is

○ | The so-called science of poll-taking is not a science at all but a mere necromancy. People are unpredictable by nature, and although you can take a nation's pulse, you can't be sure that the nation hasn't just run up a flight of stairs. F.B. White, *The New Yorker*, 1948.

throwing the West's spiritual world into confusion. But Jung dives even deeper and singles out that while the West is explicitly acting, the East is implicitly reacting, not by substantively going to the West to do its thing as the latter is operating, but by fastening its hold from within the modern man! Jung reinforces his claim with historical examples of the Roman Empire's conquest of Asia and its subsequent becoming Asiatic, an infection being perpetuated even until now. This is what finally leads Jung to declare "it seems to me that we are only at the threshold of a new spiritual

epoch" (Jung, 1950), a declaration that was the prelude to the final question that this man of thought asks: "Is what I have said of modern man really true, or is it perhaps an illusion?" (Jung, 1950) Jung concludes on the same Nietzschean spirit he elaborated: a transparent description, not fearful of harsh pessimistic truths, guided by skepticism and driven by self-skepticism, and resulting in sheer optimism within the framework of reasonable moderation. I feel compelled to quote a whole paragraph at this point to support my interpretation:

"The body lays claim to equal recognition; it exerts the same fascination as the psyche. If we are still caught in the old idea of an antithesis between mind and matter, this state of affairs must seem like an unbearable contradiction. But if we can reconcile ourselves to the mysterious truth that the spirit is the life of the body seen from within, and the body the outward manifestation of the life of the spirit – the two being really one – then we can understand why the striving to transcend the present level of consciousness through acceptance of the unconscious must give the body its due, and why recognition of the body cannot tolerate a philosophy that denies it in the name of the spirit. These claims of physical and psychic life, incomparably stronger than they were in the past, may seem a sign of *decadence*, but they may also signify a rejuvenation, for as Holderlin says: where danger is, arises salvation also." (Jung, 1950)

And finally, a grand conclusion worthy of the grand introduction's humility in skepticism: "This is a question only history can answer." (Jung, 1950) Perhaps the one thing that Jung overlooked here was how history did indeed answer this question... through him!

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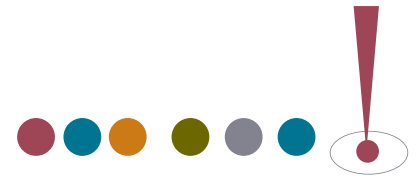
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"beautiful"

white and black, and a kiss

United Colors!

Serena Irani, PHL311



My attention has been drawn to a certain advertisement put out by United Colors of Benetton in 1991, which shows a priest gently kissing a nun on her upper lip. As we can plainly see, the priest is all in black while the nun is all in white. The obvious meaning is that black and white races can be united through interaction, communication and other ways, simply through Benetton, despite their differences in dress.

Now in my opinion, uniting people is a good idea very well affirmed by the Benetton brand. But what strikes me is that this particular image is very contradictory. Bringing black and white together is a fine message to present to the public, particularly to possible clients, but how can this moral principle be clearly understood through an immoral expression? Is a priest kissing a nun something ethical? I would reply to this question with a simple NO!

Please do not misunderstand me. A kiss in itself expresses many qualities such as love, passion, care, admiration or approval and a soft kiss as such is typically "beautiful". But in this case the kissing couple is composed of a celibate priest and of a member of a religious congregation. Celibacy and the religious life also symbolize the qualities we have indicated, but suppose a way of life which is bound by solemn vows including that of chastity, that is to say remaining a virgin for religious reasons. This is understood in the life of a religious community.

Therefore what I dislike about this advertisement is the conversion of a kiss on the lips from a good thing to a bad one, from virtue to sin, in brief from the ethical to the unethical. It is no less repulsive and immoral than an advertisement showing two people of the same sex embracing each other.

I believe that the excellent idea of unification is being distorted by such a revolting representation. I would personally suggest different choices of subject, especially in view of the fact that children may be exposed to such publicity. Directly or indirectly, it may affect their ideas of right and wrong. What I see as more appropriate for conveying the message of love and connection would be for example a young black boy kissing a young white girl on the cheek, if one wants to include male and female, white and black, and a kiss.

In short, I would rather see the belief in harmony expressed in a manner that would not trouble the conscience of anyone.

► A troubling advert.



PLEA 2005, MOTIVATING ME ...

“Only as high as I reach can I grow, only as far as I seek I can go, only as deep as I look can I see, only as much as I dream can I be”

(Karen Raun)

Motivation is neither a fact of experience

Motivation is neither a fact of experience nor a fact of behavior, but a concept introduced to explain our reaction in a specified way towards many aspects of life; moreover, any source of drive is able to energize any kind of behavior, response or general activity. Therefore, it is very important to take into consideration the efficient role of academic motivation, as we see in the Architectural PLEA 2005 conference for enhancing our creative abilities in solving design problems.

The Architectural PLEA 2005 conference

The Architectural PLEA 2005 conference, which was hosted by our fine institution, introduced the concept of *The challenge of awareness in developing societies*, by discussing passive energy architecture and in particular passive energy architecture and the notion of sustainability.

Sustainability is considered as being today's architectural

Sustainability is considered as being today's architectural challenge, for it is an attempt to endure or uphold the validity of the bioclimatic energy resources for the use of the coming generations: as the quotation clarifies: "We borrow the planet from our children; therefore we are obliged to give it back." Toward that end, the role of the present architecture, specifically in developing countries, is to search and adopt the energy for change and modification of designing concepts to build a future.

In conclusion, motivation is what gets you started

In conclusion, motivation is what gets you started, while habit ensures the process of development. Therefore it is important to direct the spotlight on the effectiveness of such academic energy on behavior, for it satisfies our curiosity, which is vital in order to understand how to design and how to construct.

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The Big Bang Theory

1915-1965

Samer Charabati

Comp. & Com. Eng.

With the development of modern physics, scientists have spent time and effort trying to find a foolproof theory of the origin of the universe. One theory, the Big Bang, has always been at the center of all discussions, and it is the currently accepted explanation of the beginning of the universe.

The big bang theory asserts that the universe originated a finite time ago (around 12 to 15 billion years ago) by expanding from an infinitely compressed state. According to this model, space, time and matter originated together, and the universe has been expanding ever since (Murdin, 2001).

This paper sheds light on key stages in the history of the Big Bang theory. In fact, the chronological elaboration of this theory is just as fascinating as the theory itself. That is what we shall try to demonstrate.

○ | Early Theories of the Universe: Einstein (1915) and De Sitter (1917)

In 1915, Albert Einstein announced a new theory of gravitation, known as the General Theory of Relativity. According to Einstein, gravity is no longer to be described by a gravitational "field" but rather it is a distortion of space and time itself, a curve in space – massive objects such as planets curve space the same way someone standing on a trampoline warps the surface of the tramp. Anyone who gets up on the trampoline will slip toward the depression the other person has made. A planet does the same thing: it creates a warp in space, and anything nearby slides toward it (Fox, 2002).

Einstein proceeded to apply his new rule of gravity to the entire cosmos. He created a universe that had no

center, was finite but unbounded, and was stable. But soon he discovered a dramatic problem: his equations described a universe that was expanding. Einstein (like many other scientists) was so sure that the universe had to be static that he introduced a *cosmological constant* into his equations, a sort of "antigravity" force (Hawking, 1988).

Based on Einstein's equations, Dutch astronomer Willem de Sitter published in 1917 a model with a slight variation: he used a constant density of the universe, but set its value equal to zero: a universe with no matter in it! Although we are fairly convinced that the universe does have matter in it, his model of the universe had some interesting features. De Sitter's universe did expand over time, but at a constant rate (Fox, 2002).

○ | First Big Bang Models: Friedmann (1922) and Lemaître (1927)

Both Friedmann and Lemaître had independently formulated cosmological models on the basis of general relativity.

Russian mathematician and meteorologist Aleksander Friedmann refused to alter Einstein's equations simply to stop expansion. Friedmann used two assumptions known as the *Copernican Cosmological Principle*, which states that, on large scale, the universe is isotropic: it looks identical in all directions, and the universe is homogenous; it looks identical in all locations, if observed from anywhere else.

From these two ideas alone, Friedmann showed that we should not expect the universe to be static

(Hawking, 1988). Instead, he produced a model that expanded over time at different rates, with no cosmological constant and a non-zero density. This universe began as a baby "universelet" at some specific point in the past and then evolved into the universe we see today (Fox, 2002).

While Friedmann's models were the first to truly predict a beginning to time, it was the Belgian priest Georges Lemaître who first received attention for his Big Bang model.

Lemaître observed that if the expansion is followed backward in time, we are led to an initial moment of creation involving conditions of extremely high density. He proposed that the universe began in the radioactive disintegration of a "primeval atom", a large explosion that pushed the subsequent expansion of the universe. His model included a cosmological constant but different than Einstein's value (Fox, 2002).

Anecdote

When Friedmann published a description of his model in *Zeitschrift für Physik* in 1922, Einstein quickly responded to the journal, saying that Friedmann's solution was wrong: "[it] does not satisfy the field equations." But within a few months, Einstein had to retract: "I consider that

Mr. Friedmann's results are correct and shed new light." Nevertheless, Einstein still didn't like the concept: he stuck to his cosmological constant! (Fox, 2002). Again when Lemaître presented his primeval atom concept publicly in 1927, Einstein claimed that his physics were "abominable", although he was forced to agree that the math "seemed to work" (Fox, 2002).

○ | Discovering the Universe: Slipher, Humason and Hubble (1912-1928)

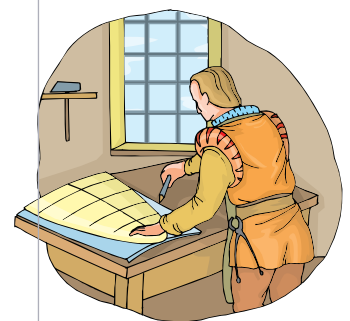
The derivation of cosmological theories based on general relativity was accompanied by a discovery of the cosmological structure. (However, the two developments were largely independent; the increased financial support for astronomy in the United States and the advances in telescopic instrumentation improved the nebular research. General relativity, by contrast, developed within a central European scientific culture with a strong emphasis on abstract mathematics and pure theory (Baigrie, 2002)).

From 1912, due to advances in telescoping instrumentation, American astronomer Vesto Slipher, was able to detect large systematic nebular red shifts (resulting from radial velocities of motion away from the Earth, according to the famous Doppler Effect.) In other words, starlight appears redder than it actually is because the nebula is moving away from us.

In 1928, American astronomer Edwin Hubble (who had previously proved the existence of other galaxies than the Milky Way), embarked on a systematic cataloguing of galaxies with the help of Milton Humason. Hubble and Humason determined that the few galaxies moving toward us are nearby. However, when they observed more distant galaxies, it was quite a surprise to find that they all appeared red-shifted; all were moving away from us! (Hawking, 1988).

○ | 1929: The Universe is Expanding

Hubble pursued his observations and measurements, and in 1929 he announced an amazing result: the size of a galaxy's red shift is not random, but is directly proportional to the galaxy's distance from us: the farther away a galaxy is, the faster it is moving away. And he could predict the pattern: twice as far, twice as fast; three times as far, three times as fast. The theory is now called Hubble's Law, and it's crucial because these data were the first experimental evidence that the universe was expanding. If the universe were basically static, we would not expect any kind of pattern. Galaxies would zoom in different directions, governed only by the effects of gravity (Fox, 2002).



Anecdote

After the discovery of the expanding universe, Einstein himself rejected the cosmological constant, saying that its introduction was the "biggest blunder of [his] life". He also admitted later that Lemaître's lecture on the subject was one of the best he had ever heard (Fox, 2002).

Lemaître often enjoys the title of "Father of Modern Cosmology" (Baigrie, 2002), which seems a bit unfair to Friedmann. Friedmann died young, in 1925, and so never saw his theories accepted. His work remained largely unknown in the West until similar models were discovered in 1935 by American physicist Howard Robertson and the British mathematician Arthur Walker, in response to Hubble's discovery of the expansion of the universe (Hawking, 1988).

But that still left questions unanswered. The simple fact that the universe was expanding, according to the theory of relativity, did not prove that it had all begun at a single point, or that it was not infinitely old.

○ | The Hot Big Bang Model: Gamow, Alpher and Herman (1948)

The notion of a disintegrating primeval atom was an interesting idea, but it was difficult to develop it into a consistent quantitative model describing conditions in the very early universe. Russian-born physicist George Gamow was the first to tackle this subject.

Gamow thought that if the universe really did start from one single dense object in space, then whatever atoms exist today had to have been created in that first explosion, or else they evolved from something so created (Fox, 2002). In order to build on his theory, he was initially concerned with the problem of stellar nucleogenesis, that is, the process by which heavier elements are synthesized from lighter elements in the star's hot and dense core. In 1938, Hans Bethe explicitly identified the chain of reactions by which hydrogen is converted to helium in the heart of a star (Baigrie, 2002). The idea of a hot furnace similar to the core of a star so appealed to Gamow that he wanted to generalize it. He joined forces with Ralph Alpher and Robert Herman and came out with the following: the early universe was dominated by radiation; matter was present at this time in the form of a soup consisting of protons, neutrons and electrons. As the universe expanded helium nuclei were produced from the protons and neutrons and further element formation followed. At a certain time, the universe had expanded and cooled to such a degree that the matter density exceeded the radiation density. At this time, the universe as we know it was born (Baigrie, 2002). Gamow's team went so far as to predict that radiation (in the form of photons) from the very hot early stages of the universe should still be around today, but with its temperature reduced to about 5 Kelvin (Hawking, 1988; Baigrie, 2002). (The correct value is 2.7 Kelvin (Sandin, 1994))

Anecdote

Gamow had a quiet sense of humor. He put Bethe's name on the paper even though Bethe had nothing to do with it. He wanted to make the list of authors "Alpher, Bethe, Gamow" like the first three letters of the Greek alphabet, alpha, beta, gamma, particularly appropriate for a paper on the beginning of the universe! He even tried to persuade Herman to change his name to "Delter"! (Hawking, 1988; Fox, 2002). But their work failed to attract much interest. No one at the time viewed their prediction as an experimental science subject to testing, and their research was forgotten... (Fox, 2002; Baigrie, 2002)

○ | 1957: The abundance of helium

In parallel with Gamow's research, a group of English scientists were developing a competing model called the Steady-State theory. Concerning this theory, we shall only tackle what was relevant to our big bang.

Ironically, one of the main supports for the Big Bang theory would be the work published in 1957, by Fred Hoyle along with Will Fowler and Geoffrey and Margaret Burbidge, all supporters of the steady-state theory. They

compared the amount of helium in the universe today with the amount that could be created according to either of the two theories. The problem involving particle formation in stars had been raised again. The four scientists showed that all the heavy elements are produced by nuclear reactions in stellar interiors, so the big bang is not needed for that production. But the real problem was in the creation of light elements like helium, deuterium and lithium. There is so much helium in the universe that it could not have been made just by the stars. It had to come from a larger and hotter furnace. So it was created at an earlier time, in an extremely hot baby universe; a plus for the Big Bang theory. But helium itself is not as important as deuterium. Today deuterium is created in the hearts of stars, but is instantly destroyed, so none escapes. No other process has been discovered that makes long-lived deuterium; hence it is believed that every atom of deuterium today was created in the first minute after the big bang (Fox, 2002). The abundance of helium and the creation of deuterium constitute the second pillar for the Big Bang theory.

Anecdote

Another ironic event gave birth to the name of the Big Bang theory. Hoyle, the major advocate of steady-state theory, first pronounced the name "Big Bang" in 1949 during a BBC radio lecture. He meant it mockingly to criticize his scientific opponents! Since then, the name has stuck and apparently no other scientist has found a more appropriate name. A contest was even organized in the 1990s by the *Sky & Telescope* magazine to find a better name, but the competition did not produce any! (Fox, 2002)

(This info reminds me of an analogous event in the domain of art. The impressionist movement gained its name as a result of irony too. Monet had created a painting and called it "Impression: Sunrise". The painting and the whole exhibition did not appeal to art critic Louis Leroy, who mockingly used the term "impressionist" to refer to the new group of painters, meaning that they were not real painters, but were just fooling people by giving them the "impression" of painting. Today an impressionist painting would cost between 1 million and 50 million dollars!)

○ | 1965: The Microwave Cosmic Background Radiation

One last pillar was necessary to end the debate and clinch victory for the Big Bang theory. It was the detection of the microwave background radiation.

Two freshly graduated PhDs, Arno Penzias and Robert Wilson, working at Bell Laboratories, upgraded an outdated antenna to conduct experiments in radio astronomy.

In June 1964, the two scientists pointed their antenna at the sky to measure any radiation coming in at a 7.35 centimeter wavelength. This was simply a test to see if the antenna was calibrated. They expected to hear nothing, since the Milky Way emits nothing in this spectrum. It was quite a shock for them when the antenna picked up a clear signal at 3 Kelvin in the microwave band. First, Penzias and Wilson went over all their adjustments on the antenna. They did not find any problem. Then they started pointing the telescope in different directions, at various nearby cities. It did not affect the constant 3-Kelvin noise at all. This radiation was evenly distributed and did not seem to be coming from any specific star or galaxy. For ten months, they kept searching for alternative explanations. Their best and biggest hope was to get rid of a pair of pigeons nesting inside the cone of the antenna, and clean all the residue they left behind! (In a paper they wrote, the scientists euphemistically referred to the birds' droppings as a "white dielectric material".) After completely ridding themselves of the pigeon problem and cleaning the antenna from top to bottom, the two men discovered that absolutely nothing had changed. The noise remained (Fox, 2002).

At the same time that Penzias and Wilson were working on this problem, a group of astronomers at nearby Princeton University were investigating models of the early universe under the direction of Robert Dicke. Without knowing about Gamow's work, Dicke had rediscovered the idea that the universe had started in an initial fireball. His model was slightly different from Gamow's but it

predicted a background radiation. And the tools now existed to find it. In fact, Dicke and his students Dave Wilkinson and Peter Roll had built from scratch an antenna for that purpose (Fox, 2002).

The group of Princeton were just about to start their experiments when they were scooped by Bell Labs' team. Soon, a meeting was arranged between the two teams. Dicke realized that the 3-Kelvin noise was consistent with the radiation that would have been emitted following the big bang (Baigrie, 2002). Both teams wrote papers for *Astrophysical Journal Letters*, Penzias and Wilson describing their results, and the Princeton group offering the interpretation that this was the result of a great, primordial fireball (Fox, 2002).

The discovery of microwave background radiation was a turning point in the elaboration of the big bang theory, and in the history of cosmology too, comparable to Hubble's 1929 discovery of the red shift relation. It provided concrete physical evidence for the Big Bang theory. There was no immediate explanation for its existence in other cosmological models, and most of the scientific community were tending toward the big bang. After 1965, high-energy physicists became interested in cosmology and graduate courses in it became a regular part of astronomy programs at universities (Baigrie, 2002). Our Big Bang theory had finally entered the realm of "real" science.

Anecdote

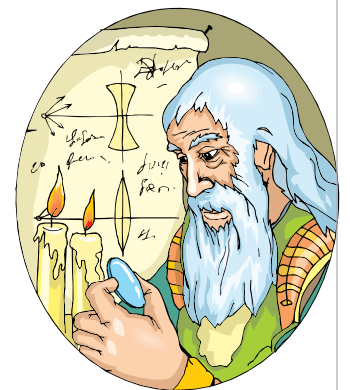
In 1978, Penzias and Wilson received the Nobel Prize for "their discovery of cosmic microwave background radiation". Or one should rather say: "for their accidental discovery"! Ironically, Penzias and Wilson never intended to search for the background radiation. They came up with the best proof for the Big Bang theory at a time Wilson tended toward the steady-state theory, if pressed to choose a model, and Penzias did not think much of cosmology! Wilson said that he did not realize the importance of their discovery until he read about it in the *New York Times* (Fox, 2002). One is allowed to wonder which group really deserves the Nobel Prize: the Bell Labs team who accidentally found the radiation, the Princeton group that was looking for it, or Gamow's team who predicted it 15 years before.

○ | After the Big Bang

The big bang theory was then refined by the inflationary theory, according to which there was a stage of exponentially rapid expansion of the early universe (Murdin, 2001). The existence of this stage resolves many problems of the Big Bang theory but raises other issues. In conclusion, the Big Bang theory is solid, but it is still alive, it is still changing. So while cosmologists admit that they did not solve everything, most would say that even if a new theory comes along, it will include many of the Big Bang and inflation concepts currently accepted (Fox, 2002). In the same way that Einstein's relativity did not "correct" Newton's gravity, but completed it, new theories will not deny the previous ones, but simply improve on them.

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Harold Pinter

Nobel Prize 2005



On Thursday, October 13th, the Swedish Academy announced that the Nobel Prize for Literature for the year 2005 had been awarded to British dramatist Harold Pinter. Justifying the award, the Academy said that this prolific author and political activist "in his dramas reveals the abyss underlying gossip and forces a way into an enclosed field of oppression ... He is generally considered the most eminent representative of the English dramatic theatre in the second half of the 20th century." Now the word Pinteresque has come to describe a particular kind of atmosphere to be found in plays for the theatre. The Academy citation further said: **"Pinter restored theatre to its basic elements, an enclosed space and unpredictable dialogue, where people are at the mercy of each other and pretence crumbles."**

The award came as a present for his 75th birthday, which Pinter had celebrated the previous Saturday in Dublin, surrounded by a crowd of famous actors. Dramatist, actor and producer, he has also been a poet and writer for the cinema. However, untiring critic of US President George Bush and British Prime Minister Tony Blair, he suspended his writing for the theatre last February in order to devote himself to politics. In the year 2003 he published a collection of poems entitled *War* to denounce the war in Iraq waged by American and British forces, which he considered to be simply an invasion. On February 15th, 2003, he addressed a crowd in Hyde Park in London composed of one-and-a-half million people demonstrating against their government's action.

Harold Pinter, the son of a Jewish tailor, was born on October 10th, 1930, in Hackney, a working-class district in the then depressed East End of London.

Here his memory was scarred by the terrifying experience of bombardment by the Nazi rocket bombs, known as V2s. He studied drama at RADA, the Royal Academy of Dramatic Art, and after a period of acting made himself a reputation with his play *The Guardian* in 1960. During the 1970s his themes became more political, dealing largely with the question of oppression. Taking a stand on human rights, he openly criticised the bombardment of Kosovo (in ex-Yugoslavia) and the invasion of Afghanistan.

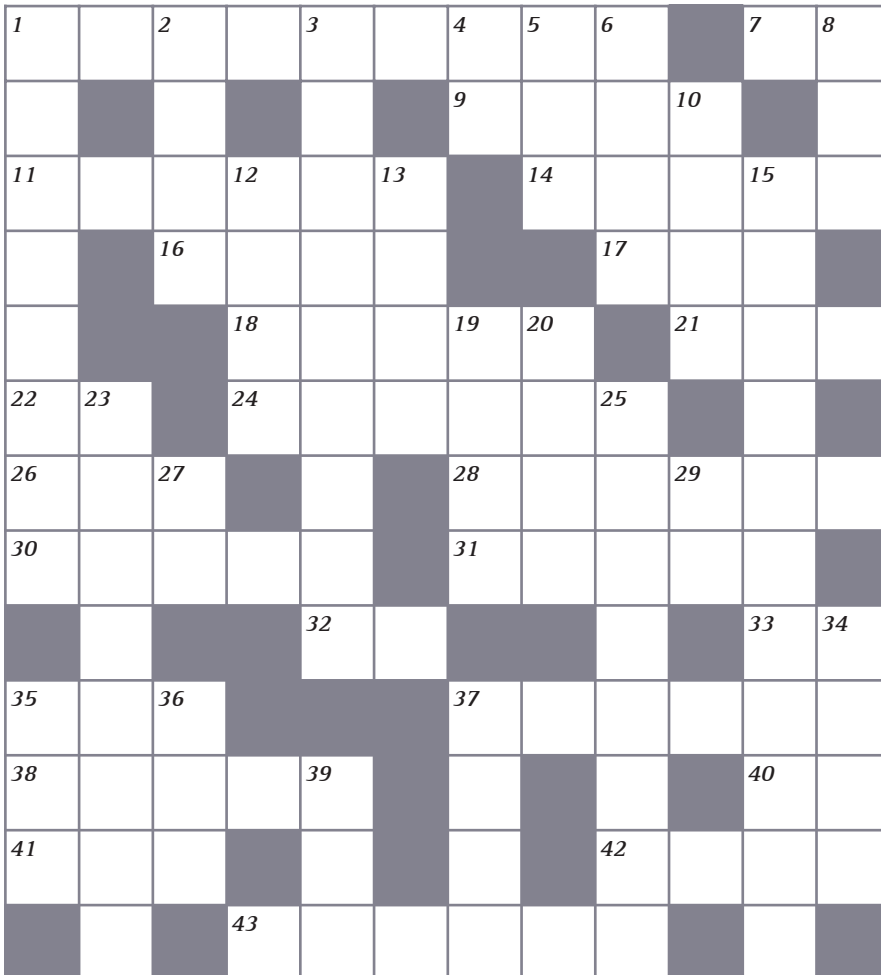
After twenty years of marriage with actress Vivian Marchant, in 1977 Pinter divorced her and in 1980 married Lady Antonia Fraser, a historian. Though suffering from cancer of the throat, for which he underwent chimeotherapy, in 2002 he was still on the stage as an actor in the National Theatre in London.

The award to him of the Nobel Prize for Literature has been warmly applauded by British Culture Secretary Tessa Jowell, director Sir Peter Hall, fellow writer Sir Tom Stoppard, actor and director Sir Alan Aychbourn and playwright David Hare.

75th
birthday

Something for your grey matter

Crossword



How is your English? Fill in with the correct postpositions, in some cases two, as indicated:

- | I put my uncle's for the night. (=Slept and ate at)
- | We put our carpets ... in the summer. (=Put in storage)
- | The Army was used to put ... the disorders. (=Suppress)
- | I'm putting ... going to the dentist's till tomorrow. (=Postponing)
- | I'm putting ... for a job at the Ministry of Labour. (=Applying)
- | I can't put that horrible noise; it's driving me round the bend. (=tolerate)
- | I felt very put ... ; they were very rude to me. (=vexed)
- | You must put your statement ... in writing.
- | To put it ... one word – NO!
- | He put me ... by his bad manners. (=offended, discouraged)

Across:

1. people from South Arabian Peninsula
7. graduate degree
9. egg-shaped
11. something to be learnt
14. Old Testament prophet
16. the small screen
17. self
18. large North American deer
21. starts a series
22. exists
24. set on fire
26. unpleasant loud noise
28. official registrar
30. popular prophetic name
31. for introducing liquid into the bowel
32. text written by hand or typed
33. life story
35. small insect
37. inborn
38. odour
40. popular now, "cool"
41. knowledge (Scottish and poetic)
42. equine pace
43. porcine domicile

Down:

- Christmastime
2. support for sails or flag
3. new word
4. towards
5. ancestress of man
6. mentally healthy
8. cinders
10. company symbol
12. half-
13. inert gas, form of lighting
15. abbreviation
19. triangular relation
20. famous British school
23. noise eliminator
25. timelessness
27. nickel
29. in the morning
34. exit for air
35. demand
36. X in Roman numerals
37. woes
- 39-three-

○ | Answers in the next issue.