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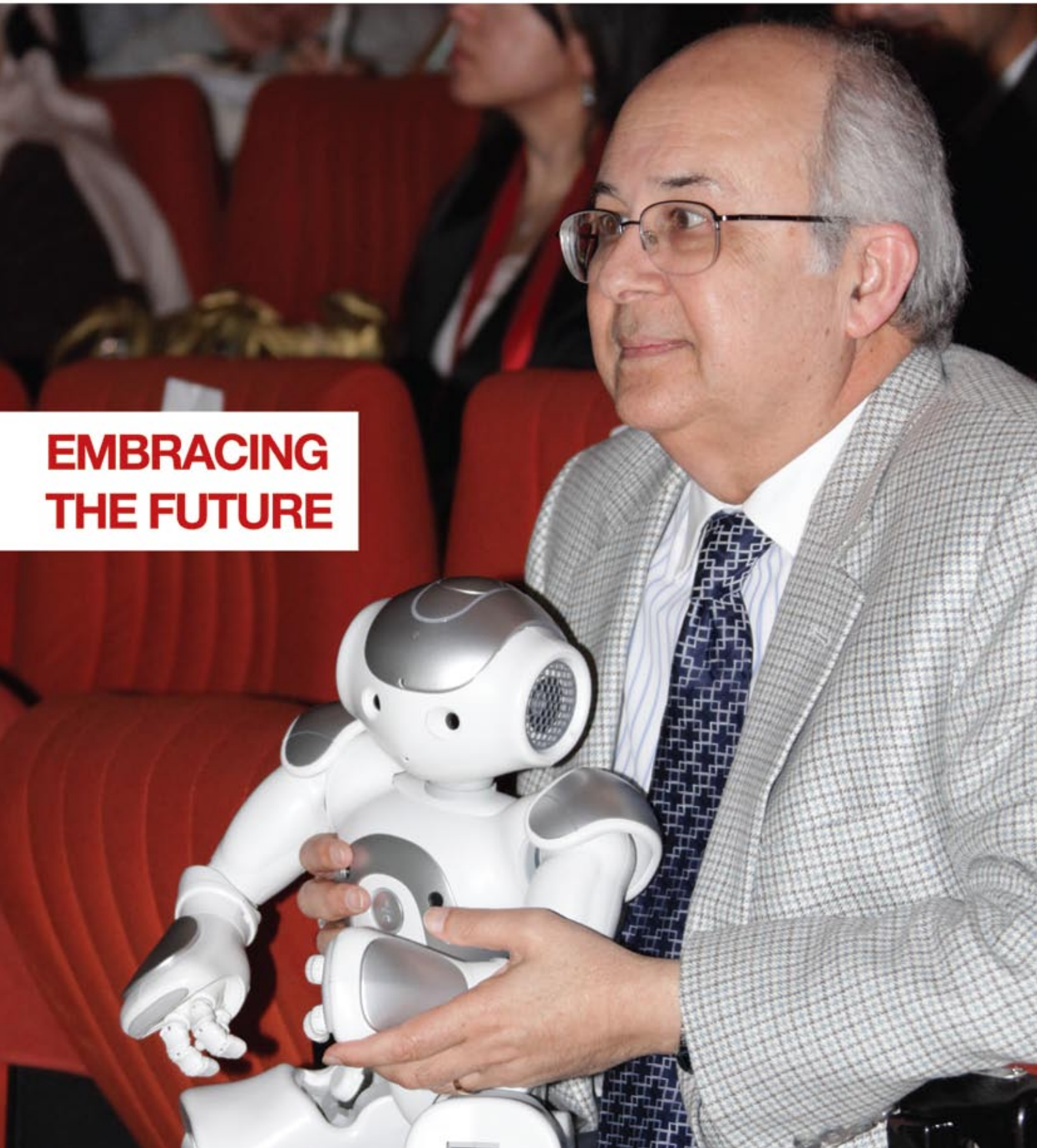

EMBRACING THE FUTURE

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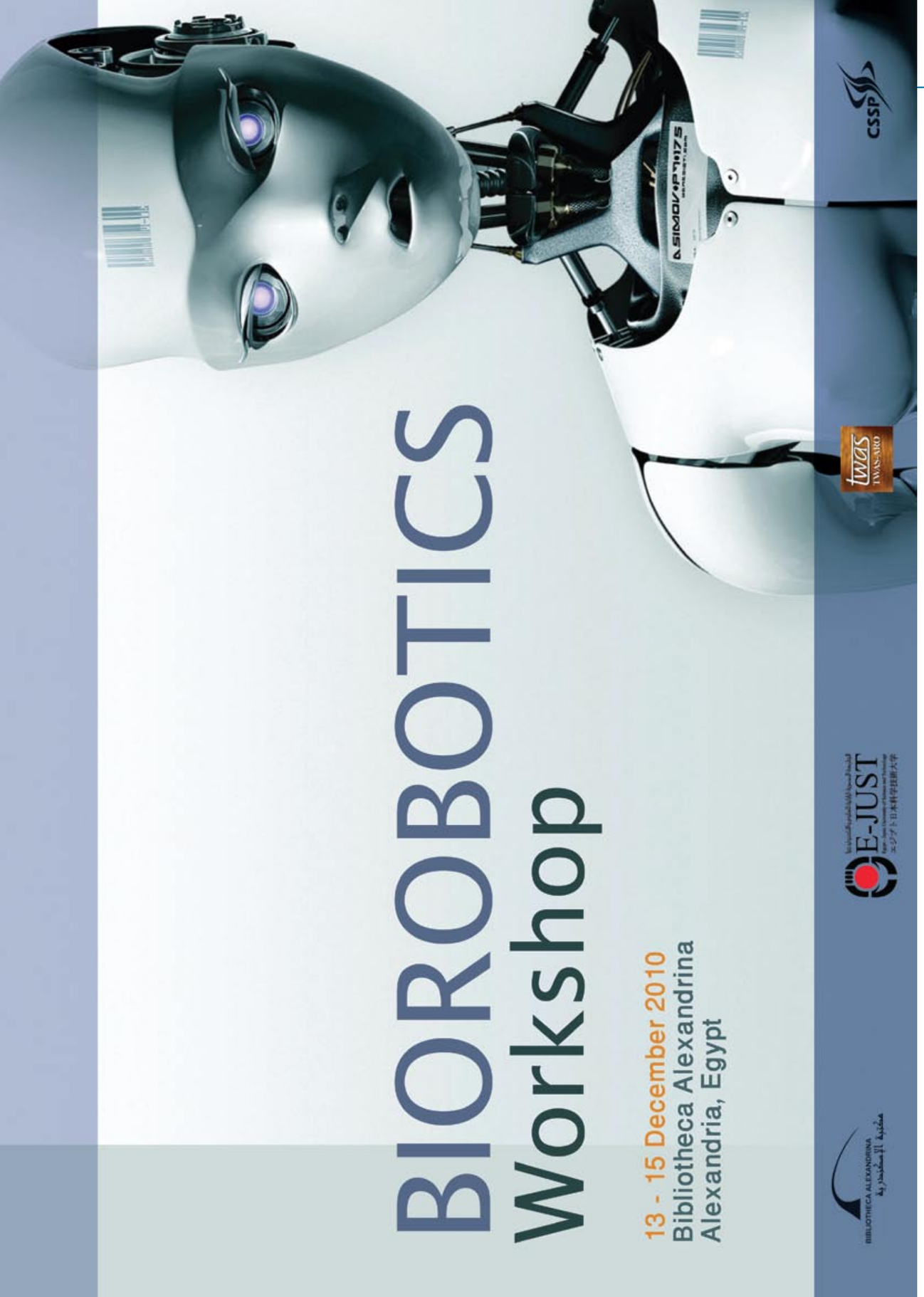


EMBRACING THE FUTURE

The new century is a century of science, technology, and innovation. Some are troubled by the enormous changes all this is wreaking in the daily lives of people, as the rhythm of innovation accelerates. Yet, it is my belief that we must embrace the future, not shy away from it. The changes, epitomized in my cute little robot friend Nao, whom I am embracing in the cover image, were well represented in our bi-ennial BioVision conference, and especially the bio-robotics series of sessions.

Since we now live in the age of the Internet, the digital age, traditional boundaries between voice, text, image and data have blurred and are on the verge of disappearing. The traditional view of writing articles and books as the basic means of communication of knowledge is being replaced by a new format of webpages and the emergence of image as well as text to transfer knowledge across space, time and generations.

A lot of people have spoken of the ICT revolution as the "Knowledge Revolution". In this regard, I have focused in my article in the 9th issue of the Bibliotheca Alexandrina (BA) Quarterly Newsletter, on the "New Knowledge Revolution", which has seven key characteristics that I like to call "pillars". "The Seven Pillars of the New Knowledge Revolution", an idea first presented to my friends at Harvard and MIT, explains the changing nature of the structure and presentation of knowledge. It is about the immense advances in technology that the world is witnessing today and how they have transformed the shape of knowledge into a continuously living, pulsating and ever-changing process.

I spoke about this new revolution on a number of occasions to different audiences, including the National Science Foundation, USA, the Supreme Council of Culture, Egypt, and L'Institut d'Egypte, Egypt, in addition to giving a presentation about it at the University of Chicago, USA, on the 27th of October. A Monograph about this topic is currently being published by the Library of Alexandria.

In this issue of the BA Quarterly Newsletter, you will also find articles tackling the "ICT-Dominant Age". Khaled Azab discussed his views on the future of libraries, while participants of the conference on US-Muslim relations, which was held at the BA, raised the importance of science and technology in fostering cooperation between countries.

Ismail Serageldin
Librarian of Alexandria
Director of the Bibliotheca Alexandrina

THE SEVEN PILLARS OF THE NEW KNOWLEDGE REVOLUTION*

Ismail Serageldin

We are on the cusp of a profound transformation of how knowledge is structured, accessed, manipulated and understood, how it is added to, and how it is displayed and communicated. That is the most profound transformation in the history of humanity since the invention of writing.

There are seven main features that can be described as pillars of the knowledge revolution that I speak of. A lot of people have spoken of the ICT revolution as the "Knowledge Revolution", with a focus on the enormous increase in knowledge available to all people, the fantastic increase in communications between people and businesses and the resulting emergence of the knowledge-based society and the technologically-based economy, with the well-known and well-documented aspects of globalization overlaid on this transformation. Here I am speaking of the structure and presentation of knowledge and how we humans will most likely be interacting with it, whether as academics or researchers or simply the descendants of those who used to go to public libraries and ask the librarian for assistance with a good book to read or a reference source for the paper they are preparing for college. It is this that I refer to as the "New Knowledge Revolution", and whose seven key characteristics, which I like to call "pillars", I describe here. These are: Parsing, Life and Organization; Image and Text; Humans and Machines; Complexity and Chaos; Computation and Research; Convergence and Transformation; and Pluri-Disciplinarity and Policy.

Parsing, Life and Organization

Since the beginning of time, whether we were writing on scrolls or on codexes and whether the codexes were printed or in manuscript form, the accumulation of knowledge was based on parsed structures, with units put next to each other like bricks in a wall or an emerging structure.

By the 17th century, we had defined a convention on how to organize that knowledge in the parsed unit; namely, an introduction and problem statement, an identification of the sources, an identification of the methodology to be used, marshaling the evidence, analyzing the evidence, interpreting the findings and conclusions.

To that list we sometimes also added a survey of the literature. Classical scholarship developed a formidable array of tools: bibliographies, lists of references, footnotes and endnotes to give credit and standardize presentations and citations. Style sheets and style manuals were, thus, developed and adopted.

Whether the piece was to be published in a journal or in a book or as a monograph or a standalone book, the general structure was approximately the same despite the variation in length.

It was the juxtaposition of these individual parsed works that created the accumulation of knowledge…the rising edifice built piece by piece, brick by brick or stone by stone…

*This article is an extract from *The Shape of Tomorrow: The Seven Pillars of the Knowledge Revolution and their Implications.*

However, each piece was "dead". By that I mean that once published it stayed as it was until a second edition would appear.

The Internet changed all that…

The web page became the unit of parsing. Instead of the classical sequence of presentation, we now think in terms of a home page with hypertext links into other related documents. Hypertext is an old technology, dating from the early 1990s. We can expect more fluidity into the merging of image, both still and video, and in the transitions from one reference link into another.

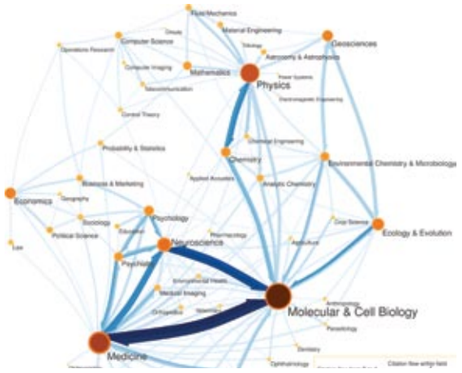
Search engines complement the World Wide Web as the on-line materials—unlike the traditionally published materials—become alive. Today, if I look up a web page, and you look it up a few hours later, it will probably have changed, since the material is constantly being updated.

Furthermore, as we move beyond the current structures of the web, towards the semantic web, where we can search for relationships and concepts and not just objects, the structure of organization and the presentation of knowledge will become one large interconnected vibrant living tissue of concepts, ideas and facts that is growing exponentially and which will require new modes of thinking to interact with it. It will automatically spawn these new modes of thinking, and scholarship will no longer be parsed like bricks in a wall, it will be more like a smooth fluid flowing river.

We can envisage a new way of organization of knowledge based on the intensity of the links between the subjects.

Throughout history, the primary means for the transmission of information has been text. Images were difficult to produce and to reproduce. This has changed. With the digital revolution, everybody can record images, both still and video, and computer generated graphics are becoming affordable by everybody.

The human brain can process visual information with enormous rapidity. True, image is more efficient, but text is different. It activates interaction between the reader and the writer.



The Natural Sciences. www.eigenfactor.org

So, some new features of the current knowledge revolution appear imminent. One: There is a far larger reliance on image (in addition to text) in the communication of information and knowledge and the changing forms of storage and retrieval devices that this will require as we move from text-dependent books and journals to digital still and video image presentations, as well as three dimensional virtual reality and holographic presentations. Interactivity will also become a feature of this new image-based virtual reality world. Again, what does that mean in terms of the presentation, the search and retrieval functions, and the interaction between the researcher and the material in the future?

Second: There was an observation that among the population at large, text in print acquired a greater credibility than oral communication. Experience and a rising cynicism allowed us to start doubting the

content that was printed in newspapers, for example. But we tended to accept the authority of pictures. Nowadays, with Photoshop and much more sophisticated software programs and techniques that manipulate images, one is no longer sure as to how credible these images are.

Third: It is not clear how the image and text aspects of knowledge formulation and transmission will play out. The future is bound to be interactive, much as the "dead" text will become a "live" one as discussed in the first of the seven pillars. Interactivity will create a whole new experience in the treatment of knowledge and how it is experienced by the reader/user.

The Social Sciences. www.eigenfactor.org

Whatever we think it will do in terms of dealing with abstract thinking and the ability to develop the interpretative capacity of the reader/user, image and text will intermingle as never before, with image taking on a more and more preponderant role over time.

But in support of image, it is clear that it can do many things that truly help humans acquire and interpret knowledge. For example, image representations of large data sets help us determine patterns much more easily and compare data sets through the patterns they generate.

Images also assist us to "see" the world in different ways, thanks to x-rays, scans and heat sensitive photos. Our ability to interpret data is expanded by many orders of magnitude through pattern recognition and simulation in 3-D or virtual reality.

So, what does all this mean for the effective description in meta-data, the storage, searchability and retrievability of this enormous and growing world of still and moving images, both fixed and interactive?

Systems based on pattern recognition appear imminent and promising. Already, Google offers services where you can show a picture of a location and get details about where you are and information about the location or the building or landmark in the picture. Much more of this is in our future. We will no longer be looking up images through keywords entered into text databases such as meta-data catalogues. Computers will do this for us.

Humans and Machines

With the exception of pure mathematics and some aspects of philosophy, it will no longer be possible for any human to search for, find and retrieve, and then manipulate knowledge in any field, much less add to it and communicate their own contribution, without the intermediation of machines. Even in literary criticism and the social sciences, the stock of materials to search through can no longer be done manually.

This is not good or bad. It just is.

On one level, the machines will vastly expand the scope of our ability to grasp and manipulate knowledge; on another, the technology they represent will increasingly be interactive with the formulation of new scientific concepts. In other words, technology will spawn new ways of understanding and will generate new scientific insights. These in turn will help spark new technologies, which will again contribute to the enhancement and acceleration of the process of scientific discovery. This spiral has been accelerating and will continue to accelerate.

In fact, new technologies in one field may lead to entirely new discoveries in other fields. Consider the new biology. It would have been impossible to imagine a few decades ago. Without access to high speed computers, it would have been impossible for a human being to list the three billion letters of the human genome and then put another such list next to it and identify single nucleotide polymorphism (SNP).

What about Artificial Intelligence (AI)? The holy grail of many computer and robotics designers; AI has been an elusive goal for a long time ever since Alan Turing designed the famous "Turing Test" to determine the intelligence of machines, and wrote his landmark paper on "Computing Machinery and Intelligence."

Systematic efforts at seeking AI probably started with Marvin Minsky and colleagues who coined that term in a famous Dartmouth conference in 1956. Debates raged, with some arguing that it was impossible, proved by a famous thought experiment of John Searle, (the so-called "Chinese Room" analogy,) which shows that computers would forever remain captive of the programs written for them. Dramatic improvements in Hardware and gradual improvements in Software led to demonstrable successes in complex tasks, such as when a special chess playing program called Big Blue of IBM defeated world champion Gary Kasparov in Chess in 1997.

But whatever the merits of that particular debate and its ramifications, it is clear that changes are already noticeable in the domain of libraries and the Internet. There are a number of new initiatives, all of which the Bibliotheca Alexandrina (BA) is actively involved in, which demonstrate the contours of things to come. They are a "preview of coming attractions" in the movie parlance of yesteryear! They include: Wikipedia, the Encyclopedia of Life (EOL), the BA Science SuperCourse project, the Universal Networking Language (UNL) and the World Digital Library (WDL).

Complexity and Chaos

The world we live in is remarkably complex. The socio-economic transactions of a globalizing world are exceedingly complex as, with the click of a mouse and the flight of an electron, billions of dollars move around the planet at the speed of light. The web of interconnected transactions is enormous, and the ripple effects of any single set of actions and its interaction with other effects is difficult to predict.

Ecosystems are not only delicate, they are intrinsically very intricate. Slight disruptions somewhere can have catastrophic effects elsewhere in this interconnected web of life. Our climate system is proving extremely difficult to measure and model, given the enormous number of variables and data points that must be taken into account.

Biological systems, even at the level of the single cell, are incredibly complicated, and we keep discovering the full measure of our ignorance with every new discovery we make. Life is more complex than we thought, and time after time, our explanatory biological models prove to be too simplistic compared to the complicated reality of nature.

The reality is complex and chaotic, meaning that complex systems have non-linear feedback loops that result in systems and subsystems that are extremely difficult to predict. Many of our models, based on the simple mathematics and analogies drawn from physics, are proving inadequate.

Benoit Mandelbrot, for example, has created Fractals, and others have come up with the logistic map to model these realities. Others speak of agent-based modeling. Still others, such as Stephen Wolfram, argue for Cellular Automata as the solution to our problems. Whatever the ultimate reality is, it is clear that we will need new math, and novel statistical concepts to deal with these kinds of problems. That should not be surprising. In the past, Newton invented calculus to present his celestial mechanics, and Einstein used non-Euclidean geometry and the method of tensors to develop relativity.

Computation and Research

The success of modern numerical mathematical methods and software has led to the emergence of computational mathematics, computational science, and computational engineering, which use high performance computing for the simulation of phenomena and the solution of problems in sciences and engineering. These are considered inter-disciplinary programs.

But a profound shift is underway. Till now, computing has been largely seen as the extension of a large calculating machine that can do dumb calculations at incredible speeds. Computer scientists and engineers were implementers who made the lives of creative people and researchers less tedious. Wonderful tools, no doubt, but just tools all the same. Today, the concepts and techniques of computing will become a central part of the new research paradigm. Computational Science concepts, tools and theorems will weave into the very fabric of science and scientific practice.

Consider data management. Data when organized becomes information. Information when explained becomes knowledge. That in turn, when coupled with reflection, insight and experience may lead to wisdom, but that is another story.

We have been collecting enormous amounts of data. These data were organized in collections, and a large part of many sciences was dependent in the past on building up such collections and then generating knowledge from their analysis and interpretation. But in our increasingly complex world today, not only have the collections become huge and thereby require particular skills for their management and organization, but also for their searchability and interpretability. It is the computer scientists who have been developing the skills to handle such matters. They are the ones who can address the end-to-end data management problems, so that we can imagine “end-to-end science data management” covering: acquisition, integration, treatment, provenance, persistence, and much more…

But beyond the scale and magnitude of the collections of data, we are looking for connections between collections of data. These pose particular problems that involve qualitatively different issues. Computer science is where the most work on such classes of problems has been done.

“We are entering a new age where the production and dissemination of knowledge, its storage and retrieval, its understanding and manipulation, its interpretation and reinterpretation, its integration and reinvention, all necessary parts of a functional cultural legacy and a dynamic cultural scene, will be different.”

Because of all this, it is urgent to reconsider the role of computer science (with its computational and information parts), and to recognize that just as the research paradigm will require new kinds of math and novel statistics, computer scientists will weave into the very fabric of science and scientific practice their insights begotten from information theory and from computing mathematics and techniques.

Computational Information Sciences will provide powerful conceptual and technical tools to be used in biology, for example, if we try to model the functions of a living cell as an information flow system. The study of Information Science is central to that view. In cosmology and physics, the rhythms of the universe are seen by some to be decodable by the insights of Information Science.

Computational concepts will also be seen as an integrative force for the new knowledge revolution: for they provide levels of abstraction that will allow scientists from different disciplines to more easily work together, and they will help develop the science computing platforms and applications that will be increasingly integrated in both experimental and theoretical science.

Computation is also learning from biology and physics. Indeed, two totally new and different fields that deal with Quantum Computing and DNA Computing are now developing. They explore how such quantum computers and DNA computers could be built. Both intend to address the issue of the limits of silicon-based conventional computing as we reduce the scale to the atomic level and increase the speed of the arrays.

Among the topics also being explored in biology that may well have significance in computer design for the future, is the development and evolution of complex systems, resilience and fault tolerance, and expanded adaptation and learning systems.

Meanwhile, John Koza, a rich entrepreneur who teaches at Stanford, pioneered “genetic programming” for the optimization of complex problems.

Convergence and Transformation

Domains are gradually converging. In simplest terms, once upon a time we had chemistry and biology as distinct and separate enterprises, now we have biochemistry. Such moments of convergence, generating new sciences and insights, turn out to be some of the most fecund moments in the evolution of our knowledge and the development of our technologies.

Today we are witnessing the convergence of three hitherto-separate fields with the birth of BINT: Bio/Info/Nano Technology.

At the same time, we need to develop what the National Science Foundation calls Transformative Research. That is research capable of changing the paradigm in some fields and domains, such as synthetic biology and femto-chemistry. Such research is extremely valuable. Thus, we witnessed the discovery of the structure and mechanism of DNA engender entire fields like genomics, proteomics and metabolomics.

A question that should be asked first is whether such developments will remain serendipitous, or will our research paradigm systematically force the development of such converging domains and transformative insights? I believe we are poised to do the latter.

Pluri-Disciplinarity and Policy

There is real value in crossing disciplines. Increasingly, both in academic organization and in tackling real-life problems, we note that the old “silos” of disciplines are counterproductive. Much of the most interesting work is being done in between the disciplines, where they intersect or where the gaps are. Increasingly, we recognize that our real life problems, such as poverty, gender or the environment, are all multi-dimensional

and complex and require a special way of organizing all the various disciplinary inputs. Just as we say that diversity is enriching, so is the sharing of knowledge across disciplines.

It is clear that greater inter-disciplinarily is the hallmark of the future, especially in trying to bring the knowledge of research to bear on the real life problems of today and tomorrow. This will not diminish the fact that it will be accompanied by pointed and very specialized research on particular problems.

The nature of the challenge, and its scale and complexity, require that many people have interactional expertise to improve their efficiency working across multiple disciplines as well as within the new interdisciplinary area. At present, there are three major ways of organizing joint work between the disciplines: Inter-disciplinary, Multi-disciplinary and Trans-disciplinary.

Whichever one of these pluri-disciplinary approaches we choose, we will need more of them to address our new realities, and not just within the natural sciences, but also crossing to the social sciences and the humanities. However, the increasing complexity may well be pulling in the other direction of increasing specialization at the tips of the knowledge disciplines, except when they confront transformative research or convergent technologies.

General Implications

It is clear from what preceded that we are entering a new age where the production and dissemination of knowledge, its storage and retrieval, its understanding and manipulation, its interpretation and reinterpretation, its integration and reinvention, all necessary parts of a functional cultural legacy and a dynamic cultural scene, will be different. If the diagnosis is correct, then we should start thinking about how to design the infrastructure of knowledge in our societies to take into account the Seven Pillars of the New Knowledge Revolution, as I have chosen to call them, and their implications. By infrastructure I mean the education system from pre-school to postgraduate studies; the research institutions in universities, independent labs, and the private sector; and the supporting structures of knowledge and culture, i.e. libraries, archives and museums. It is the anticipation of these developments in the design of our institutions today that will make the transitions into the future world of tomorrow easier, more productive and less stressful. Letting things run their course will not change the future, but it will make the transitions more stressful and possibly, in some cases, even wrenching.

This quick sketch of the Seven Pillars of the New Knowledge Revolution raises many questions that deserve thoughtful reflection. We can see, for example, that heuristic reasoning, so important for those creative leaps of the imagination, will be helped by machines but limited by complexity. Will it become more frequent or rarer? Likewise, some see the need to focus the next generation of software design on developing tools for pattern recognition, analog programming and non-linear approaches. What will be the role of evolutionary programming and the role of human innovation in these developments? Is there a special role for cellular automata as Stephen Wolfram would want us to believe? Finally, how do we encourage young people not to limit themselves to searching within the boundaries of the known paradigm, and to break out beyond it?

In this modern age, we are, to use Boorstin's expression, "questers" who recognize that there is more importance in the fecundity of the questions than in the finality of the answers.

INITIATIVES FOR US-MUSLIM COUNTRIES NEW BEGINNING

Sarah Elhaddad

"Change", "A New Beginning", were some of the many terms United States President Barack Obama used to address Muslims of the world in Cairo on 4 June 2009. Obama's speech drew many reactions and encouraged the cultivation of a positive relationship between Muslims around the world on one hand, and the United States on the other.

One year after Cairo, the Bibliotheca Alexandrina (BA) and a number of academic institutions in both the US and Egypt, organized the "Initiatives in Education, Science and Culture, Towards Enhanced US-Muslim Countries Collaborations" conference, on 16 June 2010, in recognition of the potential impact of Obama's speech, and the urgent need to encourage the creation of a new relationship between the USA and the Muslim World.

Rashad Hussein

More than 300 scholars, writers, politicians, journalists, moderate clergy and youth from about 40 countries, including the United States and Muslim-majority countries, gathered during the Conference to reflect on the impact of the US President's speech one year later, in terms of what has been achieved, and what still needs to be done. The Conference also included participation from prominent Muslim foundations such as Al-Azhar University, and the Islamic Educational, Scientific and Cultural Organization (ISESCO).

After three days of intense but fruitful dialogue, participants began to explore the steps needed to create new mechanisms to sustain the proposed new beginning, and were able to suggest more than eighteen initiatives in the three proposed principle areas for cooperation culture, education, and science and technology, which were discussed in conjunction with four cross-cutting tracks; namely youth, information technology, media, and women.

"I am encouraged by this conference and the diverse group of scholars, community leaders, students, and professionals gathered," said President Barack Obama in his speech addressing the Conference, which was given in the opening ceremony by US Special Envoy to the Organization of Islamic Conference; Rashad Hussein. "The new beginning is not only possible, it has already begun," he added.

Obama stated that while we work together to address the security and political issues that have often been sources of tension, we must also seek new partnerships, among our governments and peoples, to address issues

that matter most in our daily lives: to live in peace and security, and to give our children a better future.

"Let us create a world based on the common principles we share: justice, progress, tolerance, and dignity for all mankind. We need a sustained effort to listen to each other, to learn from one another, to respect one another, and to seek common ground, as we explore the critical issues that will shape our collective future, and build upon our new beginning," he declared.

Farah Pandith; Special Representative to Muslim Communities for the United States Department of State, pointed out that despite the challenges of starting this new beginning between the US and the Muslim World, especially because of the foreign policy regarding this part of the world, the climate of dialogue between the two parties has changed dramatically in this past year.

Farah Pandith

"President Obama's speech was a solid commitment towards relationship and dialogue-building," said Pandith. "Today, we are able to generate ideas for cooperation, assemble projects, and think about new ways to add value to dialogue," she added.

On the other hand, Hesham Youssef; Representative of the Secretary General of the League of Arab States, said that despite the growing enthusiasm to find new ways of cooperation after Obama's Cairo speech, nothing has been achieved so far. "The Arab League was the first to respond to the historical call for a new beginning, we presented the US with a number of ideas for cooperation in many fields; such as literacy, information technology, job creation, healthcare, and environmental issues, but unfortunately, we have not received any response until today," he stressed.

Mohamed Ben Saleh; Representative of the ISESCO Director General, is a believer in the role of education, science, and culture in bridging the gaps between nations and civilizations. However, he also strongly believes that foreign policy is a key element in shaping a new US-Muslim countries beginning.

Mohamed Ben Saleh

"This conference is organized in a time when we are in dire need of international cooperation to form a clear vision for global partnership and world peace, but to reach this goal, the US foreign policy has to change, especially regarding the Israeli-Palestinian Conflict issue," said Ben Saleh.

Ben Saleh also admitted that there is a powerful negative stereotype that each side holds against the other, which requires mutual efforts to increase dialogue, in order to refute those misconceptions. "We need to let people in the West know more about the values of Islam, and vice versa. We need more social and cultural exchange," he affirmed.

Combating misconceptions was the first issue discussed by the Conference participants in their search for new ways of cooperation, with a cultural perspective. Sessions discussed ways and means of promoting cultural diversity in the media, the relation between cultural diversity and information technology, the positive value of popular culture among youth, and women's role in human development.

American screenwriter and producer Howard Gordon, said that he produced the popular TV series "24", which is based on an organization assigned to prevent acts of domestic terrorism, following the rage that sparked in the US after the 9/11 attacks, which resulted in the portrayal of several Muslim characters as terrorists in the series. "Generalization was wrongly caused, but we realized our responsibility towards our viewers, and the impact of such portrayals on relations with Muslim countries, and we began to show good examples of Muslims who can serve their country, fight violence, and live in peace," he declared.

Howard Gordon
at the 'Combating Misconceptions' session

Ali Eldin Helal; Former Dean of the Faculty of Economics and Political Science, Cairo University, said that we cannot improve relations by focusing only on cultural issues, but we also must pay attention to economics, political issues, and social circumstances. He also mentioned that starting a new page of cooperation is confined to the ability of Muslim and Arab communities to build democratic and tolerant societies, and for the West to start positive thinking and to be more fair and just to the rest of the world.

The Conference also discussed the role of science in facilitating and fostering collaboration between people and countries, focusing on the importance of science in media, computer-mediated communication, new opportunities for youth engagement in science, and challenges facing the advancement of women in science.

Dr. Najmedin Meshkati; Professor of Environmental Engineering at the University of Southern California, stated that science and technology is the most important means of cooperation between countries, regardless of the economic and political differences they have. "The perfect example is the cooperation I witnessed between the United States and Iran in this field. Despite political issues, we were able to participate in several conferences, workshops, scientist gatherings and exchange between the two countries," said Meshkati.

On the third day of the Conference, participants tackled the issues of education, governance, and inspiration, and their importance in maintaining strong collaborations between countries. The sessions focused on reconceptualizing the role of education in the dissemination of knowledge, educational excellence in the digital age, adoption of modern technologies for a productive society, and education as an essential tool of overcoming marginalization of women.

During the Conference, two special sessions were organized to increase the space of dialogue and interaction between the representatives of the United States and Muslim countries. The first discussed "Interfaith Dialogue", while the second focused on "Challenges Facing Youth Engagement". The dialogue in these sessions was shared by several scholars including Dr. Mustafa Cerić, the Grand Mufti of Bosnia-Herzegovina; Katherine Marshall, Senior Fellow at Georgetown's Berkley Center for Religion, Peace, and World Affairs; Dr. Andrea Zaki, Vice President of the Protestant Church in Egypt; and Katerina Ragoussi, Associate Director of Youth and Network Coordination at Religions for Peace Global Youth Network.

The Conference also presented a free platform for displaying projects already implemented to increase cooperation between countries. Such projects included the Academy of Motion Picture Arts and Sciences International Outreach with Iranian Filmmakers, the Muslims on Screen and Television Resource Center, and the Universal Networking Language (UNL) project.

Prior to the Conference closing, Sheikh Ali Gomaa; Grand Mufti of Egypt, and William Vendley; Secretary General of the World Conference for Religions of Peace (WCRP), addressed the conference in a special session.

"We need to translate all these efforts to start a new beginning into global programs, which will move us from the concept of dialogue to the concept of cooperation and engagement," said Gomaa. "It is very important that we recapture the new spirit of Obama's Cairo speech, by turning to dialogue, protecting cultural cooperation, and spreading the values of tolerance," he added.

Gomaa stressed that bringing peace to Palestine will have a major positive impact on improving the US-Muslim countries relations. He also affirmed that Islam has always embraced cultural diversity, called for tolerance and mercy, and encouraged cooperation for the sake of developing societies and improving human life.

Ali Gomaa, Ismail Serageldin, and William Vendley during the Conference

William Vendley stressed on the importance of having a global new understanding of the nature of relations between the US and the Arab and Muslim World. "We need to start making very important decisions to fulfill this promise of a new beginning, by overcoming past differences, and creating a new page of understanding, based on mutual values and goals," he said.

Dr. Ismail Serageldin; Director of the BA, affirmed that the BA will continue its efforts to enforce cooperation between US and Muslim countries organizations, and make sure that the ideas of cooperation proposed by the Conference will finally see the light. "I hope we go on expressing ourselves freely, continue fighting misconceptions, and build more cooperation projects to start a new beginning," he concluded.

PALESTINE 1948: REMEMBERING A PAST HOMELAND
A SAGA OF THE PEOPLE AND THE PLACE

Kholoud Said

There has rarely been any historical event in which the interpretation of facts has been so disputed as those pertaining to the foundation of the State of Israel in 1948: an "Independence Day" for Israelis and their allies, and a "Nakba" (Arabic for "catastrophe" or "disaster") for Palestinians, Arabs, Muslims and Eastern Christians. Palestinians use the term to describe their exodus from the areas of Palestine which Israel occupied, and led to the subsequent destruction of the Palestinian society. More than four-hundred villages were destroyed, and eleven city neighborhoods were emptied. By the end of the fighting, the new state of Israel controlled 77% of the territory of Mandatory Palestine, while the West Bank and the Gaza strip fell to Jordan and Egypt respectively.

In 1948, around 750,000 Palestinians fled or were expelled from their homes. In 1951, the UN Conciliation Commission for Palestine estimated that the number of Palestinian refugees displaced from Israel was 711,000, not including displaced Palestinians inside Israeli-held territory. Today, sixty years on, they, their children and their grandchildren are still living in exile, with one-third staying in refugee camps.

The BA Planetarium Science Center hosted the Exhibition "Palestine 1948: Remembering a Past Homeland" from 19 August to 9 October 2010. Organized by the Tropenmuseum (Museum of the Tropics) in Amsterdam, the Netherlands; in collaboration with the Nakba Archive in Beirut, Lebanon; the Exhibition documents the loss of the Palestinian homeland. With photographs and video portraits; it is not just another fact sheet with letters and figures, nor is it an eloquent speech by a charismatic political leader. It is rather a saga of people, ordinary people in flesh and blood who remember a homeland they once knew. They, or their descendants, account for their great departure that did not seem so vast back in that hot summer of 1948. The Exhibition shows how they have sought to rebuild their identity in their quest for a "new beginning" and ironically "a place to call home".

Hussein al-Lawaisi (Abu Khaled) in front of his house in the refugee camp, West Bank, Occupied Palestine. The house has just been demolished by the Israeli Army.

The Nakba Archive compiles firsthand accounts by Palestinian refugees of 1948. In these interviews, they describe the dramatic events of the conflict, and the sudden shock of having to flee. Sometimes they speak bitterly, others recount—with nostalgia—their memories of the Palestine they left behind. Over the years, researchers have compiled over one-thousand hours of video material. Over five-hundred people were interviewed, twelve of them were shown in the Exhibition.

Most of the photographs are from the American Photographer Alan Gignoux. He has spent two years traveling in the Middle East to record the Palestinian Diaspora, culminating in his project Homeland Lost, a series of photographic stones, portraits of individual Palestinian exiles alongside contemporary views of the precise locations in the now Israel from which they, their parents, or their grandparents were expelled in 1948. By virtue of him being an outsider, he had access to these places; while for them they remain distant memories. One significance of the collection is that it reveals how the past has literally been erased.

Mohammed Tanji holds the only official paper he possesses stating that he once lived there.

The Exhibition also captured glimpses from the pre-occupied Palestine. Fawzi Mohammed Tanji holds the only official paper he possesses stating that he once lived there. In a video interview, Hamdeh Jouma (born 1930) recalls memories of her childhood and her Jewish friend, the prettiest girl in the neighborhood "We were like blood sisters"; she is originally from the village of Arab Zbeid.

These people adhere to whatever little is left from the past. Sylvia Sneige (born 1937) holds the key of her house in Jerusalem. Handing it from one generation to the other, the key has become a symbol of the right

Sylvia Sneige holds the key of her house in Jerusalem.

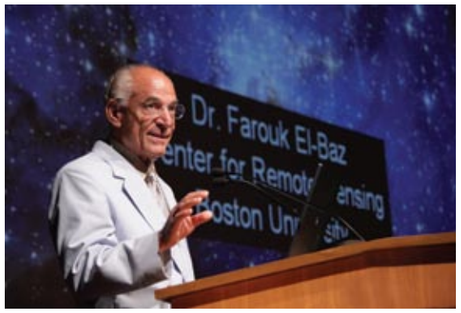
of return, celebrated annually on 15 May. Zeinab Al-Saqqa is photographed wearing her wedding dress, the only possession she brought with her from Palestine. She was married only one month before the Israeli army attacked her village, Al-Nahr. Sa'da Kayed sings resistance songs that she knows by heart. Ali Abdullah, from Lubyeh, made his children and grandchildren promise to rebury his bones in Palestinian soil. However, most of the time they do not relive the past; it is the past that casts its shadow on them. Said Otruk says "most nights I need 15 minutes for Acre to disappear from my mind before I sleep."

Mustafa Mahmoud Kassem al-Yassini with a portrait of his sister with whom he survived the attack on the village of Deir Yassin. He was only nine then.

FAROUK EL-BAZ TAKES ON A JOURNEY TO THE MOON, AND DESTINATION MARS

Sarah Elhaddad

Attendees of the International Planetarium Society Conference (IPS 2010), held during 27–30 June at the Bibliotheca Alexandrina (BA), were offered a unique chance to dive into space, land on the Moon, and dream about reaching Mars, as Dr. Farouk El-Baz; Director of the Center for Remote Sensing at Boston University, gave a lecture entitled "Apollo Legacy and Destination Mars". The lecture was one of a series entitled "Back to Alexandria: The Cradle of Astronomy", given by a number of eminent scientists and scholars.



Farouk El-Baz

In his lecture, Dr. El-Baz presented information on the successful NASA Apollo program, and human attempts to step on Mars. He spoke about future challenges in the field of science and astronomy, and explained the similarities and differences between the Moon on one hand, and Mars and the Earth on the other. He also elaborated on Arab and Islamic contributions in astronomy.

El-Baz stated that the NASA Apollo program is one of the greatest human accomplishments and the best example of the possibility of success of scientific projects. "Apollo was an incredibly successful project because it had a clear objective from the beginning, which was landing on the Moon and returning to Earth, within a specific time frame, with fixed tools and funding," he added.

The Egyptian scientist stated that Apollo could provide humanity with a wide knowledge of the Moon, which assisted effectively in understanding the history and characteristics of Earth. He stated that by gaining information about the Moon, it was estimated that it was born at the same instant in time as Earth, which was roughly about 4.6 billion years ago. "Despite the fact that the Earth kept changing geologically, and that the moon froze in time at some point, discoveries regarding the Moon enabled us to use it as a window to understand the early stages of Earth," he affirmed.

He added that Apollo astronomers were able to take pictures and samples of the surface of the Moon, and what is under its surface by drilling, which provided a clearer idea of the characteristics of the Moon. "We were able to find volcanic gases on the Moon, which means that there was some amount of steam and water vapor on the Moon, and proves that there must have been an atmosphere there, at least temporarily," declared El-Baz. He added that since the gravity of the Moon is much smaller than the gravity of the Earth, then this water would have frozen instantly after the disappearance of the atmosphere. "Apollo discoveries and studies of the Moon opened the gate to future scientific studies. Scientists now are studying the possibility of using lunar resources and using water on the Moon."

El-Baz spoke about scientists' attempts to land on Planet Mars; the new destination

following the Moon. “The mission of Mars has been in the minds of scientists for so long, because, unlike the moon, Mars supports human life; it has ice and an atmosphere which can guarantee human life for so long.” Despite all attempts, El-Baz considers the process somehow challenging. “The journey to Mars takes 6–9 months applying the current technology. We still need to work on a different means of transportation that can reach Mars in less time, and support astronomers with what they need.”

El-Baz during the IPS 2010 Conference

However, he stressed that Mars is much closer to Earth than the Moon geologically, as it is still evolving today. “The most fascinating thing is that most of the features of Mars are nearly identical to features found in deserts on Earth, especially in the south-west area of Egypt. We thought we can see what is happening in Mars now and relate it to what is happening on Earth,” he declared.

The Director of the Center for Remote Sensing said that the idea originated from Apollo astronauts, who stated that the Middle East Region is the only place they could see from space and recognize its geography; as there is so much cloud covering other lands. The desert belt is free of clouds, and the land itself has a different reddish color, just like Mars, because of the sand. “We started to investigate the reason why the desert sand and Mars have the same color, and the potential of any geological similarity,” he declared.

He stated that the studies determined that the farther away from the source of sand the redder the sand becomes, which proved that as it moves away from the source it acquires iron that makes it redder, and the whole experiment explained a lot of geological characteristics on Mars. “Both Earth and Mars went through a very wet history and windy present, thus, we were able to learn more about Mars from studying the desert, and applying whatever we learned about Mars on Earth,” he mentioned. El-Baz also said that the layers of water ice found under the surface of Mars after drilling, encourage future exploration on planet Mars to confirm the presence of water.

El-Baz also pointed out that Egyptian, Muslim and Arab scientists and astronomers contributed, over the years, vast scientific knowledge which led eventually to the historical landing on the Moon. He added that there is a list of more than 18 commemorated Arab scientists, because of their scientific contributions to the Moon, and additions to the knowledge of humanity. “Any charted print of the Moon has the names of great Arab scientists such as *Al-Bairuni*, *Jabir ibn Hayyan*, *Al-Battani*, and *Abul-Fida*,” he confirmed.

He also gave an account of the most recent scientific challenge, which is Solar flares. He explained that solar scientists suggest that the solar cycle, which has been dormant during the past 11 years and several past cycles, indicates that the coming cycle of solar flares will be more intense. Solar flares are expected to affect communication, satellite function, GPS, and all technologies that depend on sensing from space. “We need more research to understand what to expect from a heavy solar cycle and solar flares, which are very fast, and produce enormous amounts of energy and radiation which will affect Earth’s electric system and all satellites around it,” he concluded.

NEIGHBORHOOD

Ambassador Khaled Zeyada
Ambassador of Lebanon to Egypt

Translated from Arabic by: Kholoud Said

Several of the papers and texts written by Arabs, Muslims, Europeans, and Westerners, during the last century and up until this very day, were based on the relationship between Arabs and Islam on one side, and Europe and the West on the other side. Perhaps “Lemaza Ta’akhar Al-Muslemoun wa Taqadama Ghairohom” (Our Decline: Its Causes and Remedies) by Prince Shakib Arslan was among the very first books to deal with the issues of the relationship with the other, and development. These have an epistemological touch; can the self be defined in comparison to the other? Are there set criterion to measure development and underdevelopment? In the same context, other books emerged including: “Maza Khaser Al-’Aalm Benhetaat Al-Muslemin” (What Did the World Lose by the Deterioration of Muslims?) by Abul Hasan Nadwi, and here is a statement of the deterioration from a prominent Muslim scholar, in addition to “Nahno wa Al-Hadaara Al-Gharbeyya” (The Western Civilization and Us) by Abu al-Ala al-Maududi. These are only early samples which have increased by time, with the participation of Muslim and Christian, Western and Eastern scholars, clergymen, writers, and politicians with different viewpoints. Shall we widen our perspectives, we will find that the majority of the Arab cultural products express this problem that shapes our relationship with Europe and the West.

The current Arab/Islamic belief is bound to this relationship, as if the “self” cannot be defined except as opposed to the “other”. It all started when the Arab, Turk, Iranian or any other Muslim, felt that Europeans excelled, and translated this outshine into victory. This was during the Imperial Era by the end of the nineteenth century and the onset of the twentieth century; an era which all colonized countries are aware of—countries that have also known liberation and anti-colonial movements and surpassed hegemony. In spite of this, Muslim peoples are still bound to the dichotomy of development and underdevelopment, the struggle between East and West, and the divergence between Islam and Western Christianity.

What is the reason behind all this? Several of the recent analyses and viewpoints attempt to explain this growing Muslim hostility towards the West. I seek, however, to introduce a geographical and historical comparison. On the map, there is no case in which neighborhood and mutual exchange and hostility were that intense as in Europe and Islam. Since the emergence of Islam, the Muslim arrival to the Iberian Peninsula (Andalusia), and the establishment of Al-Andalus—the Islamic Empire at the onset of the eighth century CE until this very day, Europe has been surrounded by Islam. During the Classical Periods when Europe lacked access to seas, Muslims used to stranglehold Western Europe. It is perhaps enough to mention that it was not too long ago that the Ottomans (Turks) besieged Vienna in

This article was prepared for the Dialogue Forum Seminar entitled “Europe and the Muslim World—A Reading in the Dilemma of Neighborhood” held at the BA on 24 July 2010. The article is translated and published with the authorization of the author.

1683. This marks the last advancement of a Muslim army in Central Europe. Many things happened since then. Later, Europe started to narrow the Ottoman hegemony in Europe until it was completely over. Europeans then started to control Muslim and other countries to colonize them.

No nations have this common history with Europe as Turks and Arab Muslims—a long history occupying fourteen centuries of struggle and exchange; struggle from West to East Mediterranean, and from central Europe to the center of Arab and Islamic worlds; and exchange of goods, ideas, legacy, individuals and peoples through the two shores of the Mediterranean.

We can even go to the extent that Europe would have never been the Europe we know today except for the impact of Muslims and Islam; the impact of Islam in shaping its Christian identity, and the impact of Muslims in its intellectual renaissance in the thirteenth century CE. On the other hand, one cannot deny the legacy of Europe in the development of the modern Arab and Islamic worlds.

The relationship between the two worlds passed through long phases that need to be divided into the cultural history and the history of events. Arab/Islamic literature encompassed complete disregard of Europe. Works of historians and geographers only mentioned European kingdoms and provinces, for Europe was not yet a collective entity, and Christianity was not a unifying religious belief of the peoples inhabiting the region. In addition, nothing in Europe drew the attention of Muslims then, except for some trade. Last but not least, the Islamic culture rarely showed interest in whatever happened beyond the homeland.

Even the Crusades did not attract the attention of contemporary Muslims. One would not find in the writing of Arab historians of the eleventh, twelfth, and thirteenth centuries an interest in the peoples who waged wars against them. Notwithstanding the Ottoman incursion in Central and Eastern Europe, Muslim knowledge of the continent was still scarce, in spite of the relationship with European countries entered a phase of political reality. The Franco-Ottoman Alliance of 1532 between the King of France Francis I, and the Sultan Suleiman the Magnificent, Head of the Ottoman Empire, which was enacted until the end of the eighteenth century, is perhaps the best example.

In contrast, Islam was present in the European consciousness much more than the European realization in the minds of Muslims. It is perhaps enough to mention that the European consciousness has two significant historical events praised by the European collective memory. The first event is the Battle of Poitiers (Tours) in 732 which, according to the popular myth, prevented Europe from falling into Muslim hands. The other event is the naval Battle of Lepanto in 1571. Called for by the Pope of Rome, and a coalition of Spain, Venice, and the Papacy, in the European realization it was the finale of the Crusades. The main fleet of the Ottoman Empire was defeated, and the Ottoman control of the West Mediterranean came to an end.

The efficacy of Islam goes far beyond this. According to English Historian Montgomery Watt, the Islamic Andalusian threat has awakened the European identity and connected it to Christianity. Fear of Islam highlighted the extremist tendencies of Europeans and nourished their Christian faith-related traditions. It also shed light on their panic of losing their unifying language—Latin—and fear of wasting their culture. A Catholic priest wrote in a text that dates back to 854:

"My Christian brothers are delighted with the poetry and narratives of Arabs. They study scholarly writings not to confute them but to gain a classic Arabic style, for would you ever encounter a secular person reading comments on the holy books in Latin? (…) Christian youth, among the most talented, have no knowledge of any language or literature other than Arabic. They read and study Arabic books with eagerness and passion."

Historians of long periods can consider the history of European-Islamic neighborhood as a series of actions and reactions. Civilization historians can, likewise, divide this long history into two phases: Islam playing with its sciences, techniques and ideas, a significant role in the European Renaissance of the Middle Ages; and by way of returning, Europe with its role in the renaissance of the Islamic world at the beginning of the Modern Age.

In fact Islamic-European neighborhood, which meant that Europe did not have boundaries except with Muslim countries, faded away since Europe succeeded in opening new horizons—thanks to its navy, geography and map drawing, in addition to going around the boundaries of the Islamic World by discovering America, and the shipping routes around Africa towards Asia. Since then, Europe started to block Islam from its far corners. Mamluk attempts to stop the progress of the Portuguese navy in the Strait of Hormuz, or reducing the Muslim land in India at the end of the fifteenth century, did not meet success. The sixteenth century witnessed a historical paradox in the Muslim-European relationship. At the time when the Ottoman Empire was at its peak as an established empire with the traditions of Byzantine and Seljuks and besieging Europe (the First Siege of Vienna in 1528), the besieged Europe was off as a modern power transcending its water boundaries and using oceans as routes to Asia. While the Ottoman Empire was besieging Europe in the geographically narrow arena, it did not manage to control its world expansion and invasion.

Nevertheless, Muslims barely noticed the progress of Europe. At the time it was excelling in science, intellect, and technology, the Ottoman Empire was a leading military force excelling on the mainland over European kingdoms and emirates. European countries had many accomplishments far from the Islamic risk, i.e. the Netherlands, Portugal and Spain. As for France, which had an alliance with the Ottoman Empire in the mid–sixteenth century, it continued to exercise the privilege granted by Sultan Suleiman the Magnificent to King Francis I.

European modernism allowed neglecting and transcending the dichotomy of Europe-Islam that lasted for long centuries. Europe had gained a vast rich continent that broke its isolation, and moved on with discovering and controlling the world. By the end of the nineteenth century, Europe had gained control over the four corners of the world. This was not only a military power, but also an economic and cultural one. Europe did not control the world as much as it explored and shaped it in the process of controlling and colonizing.

Besides exploring new unknown continents, such as the Americas and Australia, in addition to the scattered islands in oceans, Europe discovered a barely known continent—Black Africa. It also discovered, or rather reshaped, ancient and contemporary civilizations: from the Greeks and the Romans, to the civilizations of India, China, Islam, Arabs and Persians, in addition to the civilizations of the Americas, Africa and Australia. To this aim, two new sciences emerged: Anthropology and Orientalism. Anthropology is the study of primitive people depending on biology, sociology and culture; while Orientalism was founded on

Contributions

the development of history, religions, and languages. Undoubtfully, Anthropology and Orientalism were the outcome of Europe's world expansion.

However, these informative and controlling tools, usually criticized and refuted, had their say in shaping the world. Orientalism, not only confined to Islam, rebuilt the history of China, India, Persia and the Arabs, and studied their civilizations, sciences and languages. Orientalism reached its zenith in the nineteenth century, and hence it was influenced by the nationalistic tendencies that prevailed in Europe then. It considered these fields as representatives of race, language or religion.

No past civilization explored nor studied subordinate nations. Europe was unique, both rationally and curiously. Defeated countries underwent detailed assessment according to the rationale of the seventeenth century. This assessment was impressive, but was also objected to and resented. While examining the histories and cultures, Europeans got rid of myths and legends; this was positive for the elite society who received European education, but the society that adhered to its heritage and beliefs was strongly shaken.

Europe finished off world tranquility and civilization. It caused delight and curiosity, as well as hostility and animosity. Europe influenced minor and major nations, eliminated boundaries between cultures by disseminating its ideologies and technologies all over the world. A generation from each human culture was impressed by the European enlightenment; another generation resisted aggression, authority and European colonization.

The European experience is one of a kind in human history; it managed to define the final world geographical borders when it discovered the last spot, island and tribe in the far edge and the most isolated places. In addition, it controlled the histories of nations by insisting on writing history thanks to setting the sciences of history and sociology. Europe revived civilizations, nations, and even religions from stillness. Everywhere in the world, its very scientific and methodological tools were employed to resist its hegemony.

The history of the relationship of Islam and Europe had fallen into utter oblivion, especially its classical eras, however the European history revived it. We scarcely find interest in ancient history in the Arab literature of the eighteenth century. With the onset of the nineteenth century, and the arrival of the first wave of Muslim students to Europe, Muslims were introduced to their history from European professors who were very keen on exploring the Islamic civilization.

Muslims rediscovered themselves through orientalists' literature. They also gained new concepts such as freedom, equality, and the constitution—results of the European experiment in political thinking—which motivated them to review their heritage and the reasons behind backwardness. The development of communication, from trains and telegraph to the press, contributed to a new realization of the Islamic World through being informed about Muslim news in far lands.

However, this amazement of Western thinking, experience, science and technology in the mid–nineteenth century, eventually raised doubt when European colonizing intentions were made clear. The French colonization of Algeria in 1834 did not leave certain reactions, but continued wars against the Ottoman Empire and its controlled land, later invading Egypt and Tunisia, awakened Muslim religious feelings. The Islamic conquest "fateh" of Andalusia played an important role in reviving European Christian awareness; similarly European hegemony revived Islamic awareness in Muslims. The perfect example would be the articles in *Al-Urwa Al-Wuthqa* magazine; published in Paris by Imams *Jamal al-Din El-Afghany* and *Mohamed Abdo* in 1884, that propagated resisting the British colonization that sought to "perish Muslims" as the magazine claimed. It is noteworthy that the magazine was the first that linked the colonizing wars to the Crusades, connecting Modern and Middle Ages histories.

One cannot but compare between the impacts and reactions of the Islamic conquer of Andalusia and those of European scientific and cultural advancement in the nineteenth century, and then the colonizing parts of the Islamic World.

The European reaction rejected Islamic existence, but acknowledged the literature and science of Arabs. With the increasing animosity, evolvement of the Christian identity and rising strength of the Catholic Church, Muslim reactions had almost the same features. They accepted and included European achievements in science, literature and technology.

The European invasion also motivated them to shape an Islamic reforming identity that reviewed their current position. As such, Muslims rediscovered the concept of Shura (consultation) as an equivalent to democracy, for Islam refutes despotism and tyranny; but things took different routes later. While Europeans of the fourteenth century set aside Islamic sciences and established their own, Muslims regarded Western sciences, especially evolutionary theories, as a threat to their beliefs.

At the beginning of the twentieth century, efforts were directed against resisting colonization. Islamist endeavored to fight orientalism as an epistemological authority that is even more dangerous than military occupation, as it seeks to distort Islamic history and beliefs. In this perspective, orientalism was the cornerstone of the Western ideas that yearn for deviating Muslims from their beliefs.

The contemporary scene of the relationship between the two shores of the Mediterranean revives some pictures from the past. There is a sense of stability in the relationship between countries, and there is an exchange of goods, ideas, individuals and groups. Invasions, wars and colonization no longer exist, but their memories still exist.

However, the recent feature is the European Union, something that did not occur since the Empire of Charlemagne in the ninth century. However, Europeans express refusal of Turkey joining their union, and apparently it is for religious reasons.

On the other hand, migration from the Mediterranean South to the North made its way in history too. Today, more than twenty million Muslims live, work, and have the nationalities of their new homes. European societies feel threatened by the revealing of Islamic traditions and identity. Reactions such as denial of building minarets in Switzerland or wearing *niqab* (full face veil) in France, emerged while reviving and emphasizing the fear of an Islamic invasion to Europe.

Waves of migration from Arab countries, Turkey and other Islamic countries to Europe started at the beginning of the twentieth century and increased following World War II. In the 1960s, the common belief was that these newcomers will form the bridge between the two worlds, but integration proposed unexpected problems.

The past has departed, but it still casts its shadows on the present. To regain the historical neighborhood relations, we have to break stereotypes, animosity and chains of reaction.

FEATURES OF COPTIC ART

Sherin Sadek El Gendi[1]

The word "Coptic" or "Copt", which means "Egyptian", is derived from the Greek pronunciation of an ancient Egyptian expression meaning the house of the Ka of the ancient Egyptian god Ptah who was the Lord of Memphis. Coptic art refers to the Egyptian Christian art which started to appear at the beginning of the fourth century CE.

This art was born in an Egyptian environment, that is why all human figures have Egyptian facial features: large heads, short and curly hair, long and heavy eyebrows, wide eyes, pointed noses and big mouths. All human figures are also portrayed from the front or shown in a three-quarter view.

It is important to mention that Coptic art is a very rich art that makes use of various decorative elements especially the shapes of animals and birds, Christian symbols like peacocks, fish, and the monogram of Christ. Coptic art also displays floral patterns such as the lotus, papyrus, palm trees, grapes and the acanthus leaf, in addition to geometric designs. Some objects are decorated by Syriac, Greek, Coptic and Arabic inscriptions including graffiti. Such inscriptions give dates, mention biblical verses and names of events, martyrs, saints, angels and archangels. All these as decorative units are skillfully executed with symmetry and harmony.

Some scenes in Coptic art recall ancient Egyptian subjects like, for example, the figure of the Nursing Mary with her Savior Son. We must turn back to Ancient Egypt to find the origin of such decorative motif, especially in Dendera temple where the Ancient Egyptians depicted the goddess Isis feeding her son Harpocrates. The jackal Anubis and the falcon Horus are seen until now flanking the defunct in the decoration of so many Coptic limestone funerary stelae. The ankh key sign is one of the first and the most exceptional and important forms of the Coptic cross. Figures from Greek mythology; such as Orpheus and Eurydice, Apollo and Daphne, Europe and the bull, Leda and the swan, Pan and the Bacchante as well as Aphrodite, Dionysus, Nike and Hercules continue to appear alongside the Roman styles and the Byzantine topics. After the Arab conquest of Egypt by *Amr ibn El-As* in AH 21/CE 641–642, it was normal to see the appearance of the influence of the Islamic civilization in Coptic art especially what survived of the Persian art such as the Centaur figure, the tree of life separating between two faced animals or birds. We have to mention that the repetition of the same decorative elements to avoid emptiness and the use of intensive geometric motifs especially arabesques are from the most important Islamic art influences in Coptic art.

In addition, Coptic art is originally a religious art as the decoration of several Coptic artistic objects shows some important biblical scenes borrowed from the Old and the New Testaments; like the story of Adam and Eve, the Sacrifice of Isaac, Daniel in the Lion Den, Joseph and his brothers, and the Three Hebrew boys in the Fiery Furnace. From Mariological and Christological cycles, scenes like annunciation, nativity, baptism, crucifixion, resurrection and Jesus' miracles are very common in Coptic art especially in the decoration of the interior walls of Coptic monasteries and churches.

[1]*Associate Professor of Coptic and Islamic Art and Archaeology (Faculty of Arts/Ain Shams University)*

Moreover Coptic art is a symbolic art which means that every element featured has symbolic value. For example, the cross is Christianity and Jesus Christ, the dove is the holy spirit, the eagle is Saint John and the lion refers to Saint Mark the Evangelist who introduced the Christian faith into Egypt during the first century CE according to the Coptic tradition. It is evident that symbolism is one of the most important features of Coptic art and this is due to the cruel times of persecution lived by the Copts under the Roman rule.

Icon showing the Baptism of Jesus Christ in the Jordan River. The Coptic Museum. Egypt, 18th century CE

Compared with Byzantine art, which was the art of the Roman emperor, Coptic art is a spiritual one. In other words, it is a very simple and modest art that lacks exaggeration, magnificence, elements of luxury and high brilliant colors.

Contrary to ancient Egyptian and Islamic arts, Coptic art never got the care or attention of the rulers. It was usually protected by the Coptic community; monks and priests within Coptic monasteries and churches. That is why it is considered a public art. Nowadays, visitors to Christian monuments in Egypt can get to see and know all details about the production of precious icons, the beautiful fabrics, the rare manuscripts and metalwork that were usually produced by monks in workshops annexed to these religious buildings.

Furthermore, Coptic art is a social art as its decoration depicts scenes from daily life such as nilotic scenes, hunting and fishing in the marshes with aquatics birds and plants surrounding fishermen barks, and laborers playing music during the harvest and selling grapes.

It is absolutely essential to note that Coptic decorations sometimes also include caricature scenes reflecting the sense of humor inherited by the Coptic artist from his ancient Egyptian ancestors.

In conclusion, Coptic art is the ancient Egyptian art with a Christian hue. This art created by the public and the monks immortalizes some artistic elements inherited from many ancient and contemporary civilizations. With its different symbols, Coptic art reflects several concepts of the Christian faith in Egypt. In spite of what was mentioned above, Coptic art conserves its specific character and unique identity, and the large artistic Coptic collections made from different materials and displayed now in the Coptic Museum in Cairo and in other different archeological international museums are the proof.

Sherin Sadek El Gendy participated in an international conference on Coptic Studies, which was organized by the BA during 21–23 September 2010.

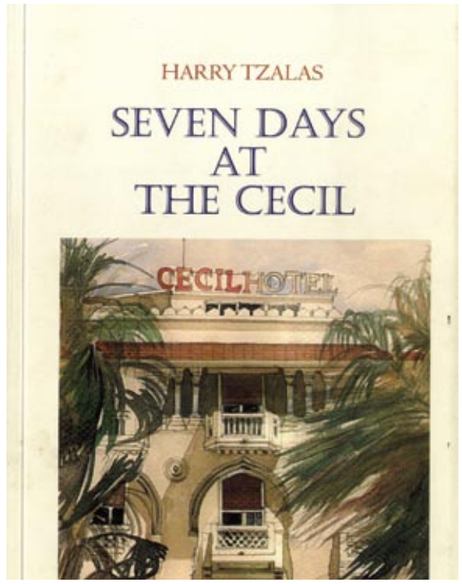
Book Review

ONCE UPON A CHILD...ONCE UPON ALEXANDRIA

Dina Elodessy

"The dead leaves are swept up
Like memories and unfulfilled dreams
You see, I have not forgotten
The song you used to sing to me..."

From the song Les Feuilles Mortes



Once upon a time, people learned stories by heart to preserve, in the spirit of their culture, that which history has so generously and painfully bequeathed them. It is not an act of linguistic serendipity that the word history is made up of two other words; that is, "his" and "story"; for history is the story of mankind. It is a narrative synthesis of memories. After all, we are who we are because of whom we once were; and it is the memories of the past that forge our identity… remembering the vicissitudes of things long bygone but still resonating in the eardrum of the soul. As the poet of all romantics William Wordsworth once claimed that "the Child is father of the man", so does every man and woman yearn to rediscover the crying child within and relive that part of the past which seems so remote and yet so hauntingly near.

Harry Tzalas followed that human call and wrote a segment of his own story, publishing it in the well-received novella, Seven Days at the Cecil; the English translation was published in 2010 by the Alexandria and Mediterranean Research Center, affiliated to the Bibliotheca Alexandrina.

Seven Days at the Cecil is a walk down memory lane in the Mediterranean city of Alexandria. It features; the ex-Alexandrian one-time princess Cécile and her niece Miléna, the English author William Traver, the representative of the London publishing house and the city savant Sorial, and the narrator of the story who—being a journalist—returned to the home of his memories to write a comprehensive guidebook of the modern city, following the footsteps of the renowned E.M. Forster. Although the narrator cannot always be identified with the author, they however share "the same thoughts, the same doubts, the same memories, and above all the same love of Alexandria and the same nostalgic disposition." They both have attempted to recover the Alexandria of their childhood, retrace in its corners the footsteps of the child who was once trying to come to terms with the present.

As the narrator so heartrendingly explained, he "wanted to gently, gradually, rekindle the memories that had coveted in the cubby-holes of [his] soul. [He] wanted to mourn…to be moved…perhaps even to weep for the lost yesterdays."

Throughout his visit, the narrator, together with the other voyagers and ex-Alexandrians, travel back in time to visit an era wherein the untarnished grandeur of Alexandria was proverbial. We accompany them in their journey through sites of memory in the 2,300 years-old city in which the old and the modern stand hand in glove with one another.

The unremitting juxtaposition between what once was and what now is haunts the characters of the novella, as well as its readers, for they have continued to battle with the ghosts of lost dreams, with the "memories of childhood years that lay in wait on the street corners, in the shadowy recesses of stairwells, which had been once climbed with the parents and friends that are now no more."

We learn, at the end, how painful our memories become once we begin to stir them up. The novella describes, through the reminiscing stories of its characters how that "beneath the Alexandria of light there exists another city of darkness and silence, where the waters of the Nile have flowed through a complex labyrinth since ancient times." It takes us on a bittersweet tour in the forgotten alleys and old restaurants of the city, shedding light on attraction sites that were sadly deformed by the passage of time and human negligence.

As the antique Cecil Hotel plays home for our main characters, they set off on a journey of remembrance and are caught up in an avalanche of reminiscences. We walk through the chess-like streets of the city that "has spread out towards the East like the huge tentacles of a monstrous octopus." We visit the Cecil Hotel, the Corniche, Ramleh, Gomrok el Adim, Sidi Bishr, the Rue Fouad, Chatby and Qait Bey. We read the dialogue of remembrance and gain entrance into the world of history and learn about the Pharos Island, the Canopic way. Other sites of memory are visited as El-Alamein memorial stirs in the hearts of mourners the tragic losses suffered when the world was at war. Silent places in Alexandria have been suddenly transformed by a loud clamor of voices into a panoramic story that needs no narrator to describe it.

Not different than any nostalgic yearning, the journey returning to the past is always overshadowed with the bitterness of the visited reality. As the narrator soothes down a disappointed Belgian tourist who was questioning the worth of visiting the modern-day city of Cavafy, his words strike a sensitive chord in each Alexandriaholic who is so wisely advised "you should not look at Alexandria so brazenly, with your eyes wide open. This city is not only the present but also the past. You sense it through half-closed eyes, you do not look it straight in the face—you feel it with your heart."

So, with half-closed eyes, the reader feels obliged to see in his mind's eye the love-adorned Alexandria of poets and travelers, to see beyond its imperfections, to blink an eye to the sometimes patronizing remarks of the returning voyagers and understand that their scorn matches his own. The Western yardstick concerning controversial issues such as the status of women are exposed in the person of Cécile who is answered by a moving love story about a Pasha falling in love with an epidemic-struck Caircassian slave girl and choosing to go into death camp with her rather than suffer her loss. She slowly learns that there is more to this culture than what meets the eye.

Although the characters speak in the familiar tone long held by visitors of the East, it is their love of Alexandria that redeems them in the eye of the reader who may not see the city as exotic as Miléna does, but empathizes her well as she explains to an American woman complaining about the flies that "an exotic place in particular bears no comparisons. You just have to take it as it is, accept the people as they are. You did not come here to change the place, but to get to know it."

Seven Days at the Cecil is not just an autobiographical experience rendered literature; it includes within the scheme of its plot a number of thought-provoking conversations that embarks upon a sea of contentious issues concerning the nature of death, faith, social justice, righteousness and so forth. Such issues, at a closer introspection, constitute a jigsaw of self-knowledge and understanding, for do not all journeys hunt wisdom as their final destination; and do not all memories guide us to discover the nature of our self, often shrouded in the space between the past and the future.

A hyperbolic stretch of imagination has in fact led me to link the title of the book with T.E. Lawrence's own account of his time in Arabia, The Seven Pillars of Wisdom. However far-fetched this may seem to be, one cannot deny the significance of number seven in its religious and symbolic context; a number often connoting wisdom, fulfillment and creation.

In fact, for Harry Tzalas, seven days have sufficed for him to pursue a place both celestial and earthly, inhabited with the memories of souls who once lived and rejoiced in the landmarks of the past. As the narrator asks at the end of his journey, setting out on his latest tour of the city, "is this the first day of a new visit, or the eighth day, the continuation of the former one? The answer to this question is hidden between the lines of the novella; shall a new visit begin, or merely and sadly continued? And does the modern Alexandria need a guidebook or does it not?

As regards the characters of the novella in hand, they have taken refuge in the past; and found that Alexandria was different than the city they have carried around inside them for so many years…the one conjured up in difficult times.

The utopia that Alexandria represents has, like all its equals, turned out not to be so utopian after all. To let go of the ghosts of our memories or to hold on tightly, that is the question. The alluring façade of the past deludes us all.

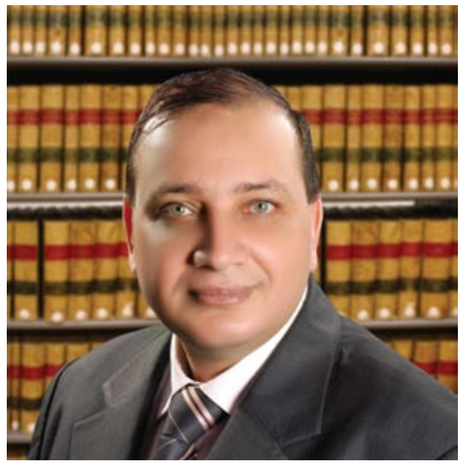
However, as the seven days come to an end, a new wisdom is gained. We come to understand that the present should be savored even though we now know that "every beautiful moment that is lost, is lost forever. What is left is the bitter aftertaste of the fleeting paradise that you allowed to pass you by and the torturing remorse at the loss."

No matter what, my Alexandria, however, like the Alexandria of us all, will keep its promise…will keep the memory alive.

Harry Tzalas established the Hellenic Institute for Ancient and Mediaeval Alexandrian Studies in 1997, and since then, has been leading periodic underwater archaeological surveys off the Alexandrian coast. Seven Days at the Cecil, published originally in 2000, is his second publication of short stories translated into English; the first being "Farewell to Alexandria".

HAS THE AGE OF LIBRARIES COME TO AN END?

Khaled Azab



Libraries were considered a symbol of peoples' progress and development; a center of knowledge; and a place for intellectuals, writers, and scholars. They were like a school breeding new generations. Thus, nations insisted on having national libraries, and some specialized in specific disciplines, while others intended to disseminate culture in cities and villages. Nevertheless, in the age of the Internet and the emergence of digital libraries, several questions were raised; including what are these libraries? Does its flow of information threaten cultural identity? Has the age of traditional libraries come to an end?

Digital libraries are a collection of information under the control of a systematic management. It aims at providing knowledge through storing information in digital formats, managing this information, and making it available through a network of computers. It is crucial to distinguish between the flow of information to a personal computer at home, and managing information through the Internet. The former means randomness, while the latter means that the information is managed and revised before gaining credibility.

Therefore, it is crucial to emphasize that a race for a new type of human knowledge tools has started all over the world nowadays; not on paper, but on the Internet. In addition, that who will have a well managed presence, will, in fact, have a future in the world culture in the next few years. Does this mean that there is a new debate over the concept of libraries?

There is no doubt that "Yes" would be a logical answer. Radical transitions are taking place nowadays, some of which have led to the formation of the Digital Library Federation (DLF), as opposed to the International Federation of Library Associations (IFLA). The former includes university libraries in the United States, the British Library, Oxford University, the Library of Congress, the Bibliotheca Alexandrina, and others. They all seek, under strict standards, the creation of a hypothetical libraries society that forms a source of human knowledge on the Internet. The latter, however, is the traditional libraries society based on the concept of national libraries that store, index, and preserve national publications and other means of knowledge. There is a world of difference between them, similar to the difference between paper and computers. Paper is as widespread as computers that are found in every home and is renovated with every passing second. It is a renewed flow, whereas paper is a single incoherent mean; each stack of paper contains images, forms, charts, or statistics. In computers, however, there is coherence between the images, texts, forms, and charts, not to mention films where the material can be changed and enhanced continuously; the reader can interact with and criticize it. The difference is one of the solidity

of the knowledge written on paper and the vitality of the material offered on the web.

With the Internet and its unlimited potentials, the reader no longer needs to buy paper books or browse encyclopedias to have access to information. The author also does not need the traditional publisher anymore. Then, what makes digital libraries play a role while the reader is separated from it and the author does not need it? The role played by information professionals; those who distinguish between useful, useless, pointless, and reliable information, not to mention their role in preserving the cultural identity on the Internet, in managing information, is a pivotal role. This role requires libraries that embrace them and take the lead in disseminating information in the form of digital books, websites, gateways, or other forms of digital means. Consequently, we cannot say that the age of libraries has come to an end with the rise of the flow of information. Instead, we can say that there is a new concept of libraries that depends primarily on the digital transmission of information.

Even though there are a lot of differences between digital and traditional libraries, they are similar when it comes to the human element that produces and uses information. Moreover, traditional or digital libraries act as the medium between the producer and consumer of knowledge. This medium is in constant need of the human explorer who searches for different means.

The Internet has changed the concepts of time and place, and provided us with unprecedented opportunities. Now, we have access, through the Internet, to a massive amount of knowledge in all fields. It contains billions of pages that can be searched and found in less than a second. The benefits of the Internet depend on the search engine used to search the available content for the information suitable for the researcher. Undoubtedly, Google is the most important search engine currently. However, Google did not settle for providing its search engine to be used by hundreds of millions of web users, but it has gone into partnership with major academic libraries in order to digitize millions of books, to enable Google users to search it. This initiative triggered controversy between publishers and Google, especially in the United States, not to mention the grave concern in Europe about Google's domination of the digital space. This means the predominance of the American or English culture over the global culture; as if the world has only one culture in the digital space. As a result, the European, Asian, and Arabic cultures are left out. This may be what motivated Jean-Noël Jeanneney; Former President of the Bibliothèque nationale de France (BnF), to write a book entitled Google and the Myth of Universal Knowledge: A View from Europe, where he tackles the following issues:

Firstly: The dominance of the Google search engine leads to the selection from English language sources at the expense of other languages. Google ranks thousands of pages according to a "public culture" where the most viewed page is ranked as number one, causing more users to read it, hence, boosting its rank.

Secondly: Google's highlighting of one paragraph in one page decontextualizes the text in a culturally damaging way, and it is not the best way of introducing a book or an article to the readers.

Thirdly: We, cultural guardians, should emphasis that introducing our culture in our own language does not deny readers and researchers from all over the world access to it, as Google search engine favors English sources.

Fourthly: Our culture should be presented in a form other than that of extracts taken from different pages. In addition, our heritage should not be left out for the sake of what is popular no matter how superficial it is.

In conclusion, Jeanneney calls for the launch of the European Digital Library that offers culture in different European languages, and a European search engine equivalent to Google's in order to serve the readers and researches looking forward to learning about the European culture.

Consequently, the creation of an Arabic search engine and digital library has become a pressing matter as the absence of Arabs from the Internet end their cultural future.

"The Internet has changed the concepts of time and place. It enables us to gain a massive amount of information in various fields in just one second."

Paper has made retaining information much easier whereas publishing has made reading a daily habit, and computers put the world in the center of the information flow revolution. Does this mean that the age of libraries has come to an end? Do we no longer need these massive buildings storing books?

These two questions only lead to more challenges; the publishing of books will not end, and the desire to know unusual happenings is the same as that of buying original paintings and visiting museums and monuments. Moreover, publishing authentic and original works; such as publishing the first editions of Shakespeare's novels on the British Library website, has made readers passionate about getting to read them. Digital libraries will offer rare books and photos that have no copyrights, while traditional libraries will keep on playing the role of storing books that will be in an increasing demand. It has been proved that the emergence of a new mean of knowledge does not put an end to the old one that is renovated and presented in new forms and functions. Libraries will also be centers of thought and disseminators of culture; tools of their production, rather than receptors. Consequently, the BA's strategic plan includes establishing cultural centers that act as producers of thought and sanctuaries for the new generations of intellectuals. Currently, the Library has eight academic research centers covering calligraphy, arts, Mediterranean and Hellenistic studies, IT, manuscripts, and documentation of cultural and natural heritage. The Library also has a Dialogue Forum, which provides opportunities for the meeting of and discussions with thinkers, authors and writers to discuss various salient issues affecting modern societies. The Arab Reform Forum was the product of the first Arab Reform Conference organized in 2004.

The Library of Alexandria has an interactive relation with the local, regional, and international communities. It is not only a building for storing books, but also a tool of culture and dialogue. Is this the future role of libraries?

There is no doubt that the answer to this question depends currently on the successive changes to their functions, and the various experiments in this field, especially that of the Library of Alexandria.

Words to Remember

“We may have all come on different ships, but we’re in the same boat now.” —Martin Luther King, Jr.

“Now join your hands, and with your hands your hearts.” —William Shakespeare

“We are all dependent on one another, every soul of us on earth.” —George Bernard Shaw

“If we do not hang together, we will all hang separately.” —Benjamin Franklin

“The meeting of two personalities is like the contact of two chemical substances. If there is any reaction, both are transformed.” —Carl Gustav Jung

“The only thing that will redeem mankind is cooperation.” —Bertrand Russell

“No man is an island entire of itself; every man is a piece of the continent, a part of the main.” —John Donne

“Though force can protect in emergency; only justice, fairness, consideration and cooperation can finally lead men to the dawn of eternal peace.” —Dwight David Eisenhower

“It is through cooperation, rather than conflict, that your greatest successes will be derived.” —Anonymous

“International cooperation, multilateralism is indispensable.” —Hans Blix

“My opinion on who’s wrong or who’s right has nothing to do with the fact that we have to bring together people who are against each other, to transform antagonism into cooperation.” —Harri Holkeri

“The keystone of successful business is cooperation. Friction retards progress.” —James Cash Penney

Bibliotheca Alexandrina Calendar of Events
Selected Events, October – November 2010

Date: 1–24 October
Exhibition - Open to the Public
Flying Festivity
Location: BACC, East Exhibition Hall
Contact Person: *Amira.Kotb@bibalex.org*

Date: 3–5 October
Workshop - Registration
Marine and Coastal Zone Environmental Management
Location: BACC
Contact Person: *Reem.Sassy@bibalex.org*

Date: 5–7 October
Workshop - Registration
Videographies, by Swiss artist Ursula Biemann
Location: BACC, Meeting Rooms
Contact Person: *Tamer.Saber@bibalex.org*

Date: 5–7 October
Training - Registration
The Cross-Cultural Media Award
Location: BACC
Contact Person: *Aiten.Gamaleldin@bibalex.org*

Date: 7 October
Cinema - Open to the Public
Documentary Film Forum
Location: Main Library, Auditorium
Contact Person: *Ahmed.Nabil@bibalex.org*

Date: 10 October
Ceremony - Open to the Public
Arab Archeologists Day
Location: BACC, Small Theater
Contact Person: *Amr.Ghoniem@bibalex.org*

Date: 17 October
Gala - Open to the Public
Opening of (AlexFest) 2010
Location: BACC, Great Hall
Contact Person: Mervat.Elanwar@bibalex.org

Date: 22 October
Concert - Registration
Mediterranean Night, BA Orchestra
Location: BACC
Contact Person: *Reem.Kassem@bibalex.org*

Date: 24 October
Book launch - Open to the Public
Italia patria di scienziati
Location: BACC, Lectures Hall
Contact Person: *Reem.Kassem@bibalex.org*

Date: 25 October
Conference - Registration
International Association for National Youth Service (IANYS)
Location: BACC
Contact Person: *Heba.ElRafey@bibalex.org*

Date: 6 November
Exhibition - Open to the Public
Biodiversity
Location: BACC, West Exhibition Hall
Contact Person: *Reem.Sassy@bibalex.org*

Date: 8 November
Book Discussion - Open to the Public
The Big Read 2010
Location: Main Library, Fourth Floor Floating Room
Contact Person: *Ghada.Nassar@bibalex.org*

Date: 21 November
Ceremony - Invitation
Model Nile Basin Initiative (MNBI) 2010
Location: BACC, Small Theater
Contact Person: *Muhammad.Mostafa@bibalex.org*

Date: 24–25 November
Conference - Invitation
Arabic Language Technology Road Map
Location: BACC, Small Theater
Contact Person: *Omneya.Samy@bibalex.org*

For additional details, kindly visit: *http://www.bibalex.org/*