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Bibliotheca Alexandrina Newsletter
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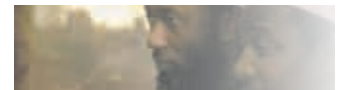
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Abolishing Hunger

Ismail Serageldin



The scientific community can play an essential role in providing the tools for humanity to satisfy its moral imperative to feed the hungry.

The first of the Millennium Development Goals, which were adopted by the world's leaders at the UN in 2000, was a promise to fight poverty and reduce the number of the hungry by half by 2015, from 850 million to 425 million hungry souls on this planet. Shame on us all! By 2008, the figure had actually risen to 950 million and is estimated to reach one billion in a few years.

It is inconceivable that there should be close to a billion persons going hungry in a world as productive and interconnected as ours. In the 19th century, some people looked at the condition of slavery and said that it was monstrous and unconscionable, that it must be abolished. They were known as the abolitionists, and they were motivated, not by economic self interest but by moral outrage.

Today, the condition of hunger in a world of plenty is equally monstrous and unconscionable, and it too must be abolished. We must become the "new abolitionists". We must, with the same zeal and moral outrage, attack the complacency that would turn a blind eye to this silent holocaust, which claims some 40,000 hunger-related deaths every day.

As we celebrate the bicentennial of Abraham Lincoln, the founder of the U.S. National Academy of Sciences and the great emancipator, it behooves us to become the new abolitionists. Lincoln said a house divided cannot stand, and a nation cannot survive half free and half slave. Today, I say a world divided cannot stand; humanity cannot continue living partly rich and mostly poor.

Our global goal should be that all people enjoy food security, that is reliable access to a sufficient quantity, quality, and diversity of food to sustain an active and healthy life. Most developed countries have achieved this goal through enormous advances in agricultural techniques, plant breeding, and engineering schemes for irrigation and drainage,

and these advances are making a difference in developing countries as well. The Malthusian nightmare of famine checking population growth has been avoided. Global population has grown relentlessly, but many lagging societies have achieved a modicum of security that would have been unthinkable half a century ago. India, which could not feed 450 million people in 1960, is now able to provide the food energy for a billion people, plus a surplus, with essentially the same quantities of land and water.

Still, much more needs to be done. Achieving global food security will require progress in the following areas:

- Increasing production to expand the caloric output for food and feed at rates that will match or exceed the quantity and quality requirements of a growing population whose diets are changing because of rising incomes. This increase must be fast enough for prices to drop (increasing accessibility of the available food to the world's poor) and be achieved by increasing the productivity of the small-holder farmers in the less developed countries so as to raise their incomes even as prices drop.
- Such productivity increases will require all the available technology, including the use of biotechnology, an approach that every scientific body has deemed to be safe but that is being bitterly fought by the organic food growers lobby and various (mainly European) nongovernmental organizations.
- Climate change has increased the vulnerability of the poor farmers in rain-fed areas and the populations who depend on them. Special attention must be given to the production of more drought-resistant, saline-resistant, and



Source: www.ses.sk.ca

less-thirsty plants for the production of food and feed staples.

- Additional research is needed to develop techniques to decrease post-harvest losses, increase storability and transportability, and increase the nutritional content of popular foods through bio-fortification.
- Biofuels should not be allowed to compete for the same land and water that produces food for humans and feed for their livestock. We simply cannot burn the food of the poor to drive the cars of the rich. We need to develop a new generation of biofuels, using cellulosic grasses in rain-fed marginal lands, algae in the sea, or other renewable sources that do not divert food and feed products for fuel production.
- As it is impractical to seek food self-sufficiency for every country, we need to maintain a fair international trading system that allows access to food and provides some damping of sudden spikes in the prices of internationally traded food and feed crops.

- The scientific, medical, and academic communities must lead a public education campaign about food security and sound eating habits. Just as we have a global anti-smoking campaign, we need a global healthy food initiative.
- We need to convince governments to maintain buffer stocks and make available enough food for humanitarian assistance, which will inevitably continue to be needed in various hot spots around the world.
- Rapidly deploy systematic efforts at collecting and classifying all types of plant species and use DNA fingerprinting for taxonomic classification. Add these to the global seed/gene banks and find ways to store and share these resources.



The Svalbard Global Seed Vault, www.thedailygreen.com

New Technologies to the Rescue

No single action is going to help us solve all the problems of world hunger. However, several paths are open to us to achieve noticeable change within a five-year horizon. Many policy actions are already well understood and require only the will to pursue them. There are a few more actions that will become effective only when combined with the development of new technologies that are almost within our grasp. Critical advances in the areas of land, water, plants, and aquatic resources will enable us to take a variety of actions that can help put us back on track to significantly reduce hunger in a few short years.

LAND. Agriculture is the largest claimant of land from nature. Humans have slashed and burned millions of hectares of forest to clear land for farming. Sadly, because of poor stewardship much of our farmland is losing topsoil, and prime lands are being degraded. Pressure is mounting to further expand agricultural acreage, which means further loss of biodiversity due to loss of habitat. We must resist such pressure and try to protect the tropical rain forests in Latin America, Africa, and Asia. This set of problems also calls for scientists to:

- Use satellite imagery to classify soils and monitor soil conditions (including moisture) and launch early warning campaigns where needed.
- For the longer term, conduct more research to understand the organic nature of soil fertility, not just its chemical fertilizer needs.

WATER. Water is life. Humans may need to consume a few liters of water per day for their survival and maybe another 50100- liters for their well-being, but they consume on average about 2,700 liters per day for the food they consume: approximately one liter per calorie, and more for those whose diet is rich in animal proteins, especially red meat. At present, it takes about 1,200 tons of water to produce a ton of wheat, and 2,0005,000-tons of water to produce a ton of rice. Rainfall is also likely to become more erratic in the tropical and sub-tropical zones where the vast majority of poor humanity lives. Floods alternating with droughts will devastate some of the poorest farmers, who do not have the wherewithal to withstand a bad season. We absolutely must produce “more crop

per drop”. Some of what needs to be done can be accomplished with simple techniques such as land-leveling and better management of irrigation and drainage; but we will also need plants that are better suited to the climate conditions we expect to see in the future. Much can be done with existing knowledge and techniques, but we will be even more successful if we make progress in four critical research areas:

- First, we hardly know anything about groundwater. New technologies can now map groundwater reservoirs by satellite imagery. It is imperative that an international mapping of locations and extent of water aquifers be undertaken. New analysis of groundwater potential is badly needed, as it is likely that as much as 10% of the world’s grain is grown with water withdrawals that exceed the recharge rate of the underground reservoirs on which they draw.
- Second, the effects of climate change are likely to be problematic, but global models are of little help to guide local action. Thus, it is necessary to develop regional modeling for local action. Scientists agree on the need for these models to complement the global models and to assist in the design of proper water strategies at the regional and local scales, where projects are ultimately designed.
- Third, we need to recycle and reuse water, especially for peri-urban agriculture that produces high value fruits and vegetables. New technologies to reduce the cost of recycling must be moved rapidly from lab to market. Decision-makers can encourage accelerated private sector development programs with promises of buy-back at reliable prices.

Finally, desalination of sea water, not in quantities capable of supporting all current agriculture, but adequate to support urban domestic and industrial use, as well as hydroponics and peri-urban agriculture, is possible and important.

PLANTS. Climate change is predicted to reduce yields unless we engineer plants specifically for the upcoming challenges. We will need major transformation of existing plants to be more resistant to heat, salinity, and drought and to reach maturity during shorter growing seasons. Research can also improve the nutritional qualities of food crops, as was done to increase the vitamin A content of rice. More high-risk research also deserves support. For example, exploring the biochemical pathways in the mangrove that enable it to thrive in salty water could open the possibility of adding this capability to other plants.

Excessive research has focused on the study of individual crops and the development of large monoculture facilities, and this has led to practices with significant environmental and social costs. Research support should be redirected to a massive push for plants that thrive in the tropics and subtropical areas and the arid and semi-arid zones. We need to focus on the farming systems that are suited to the complex ecological systems of the small-holder farmers in the poor countries.

This kind of research should be treated as an international public good, supported with public funding and with the results made freely available to the poor. Such an investment will reduce the need for humanitarian assistance later on.

AQUATIC RESOURCES. In almost every aspect of food production we are farmers, except in aquatic resources, where we are still hunter-gatherers. In the 19th century, hunters almost wiped out the

buffaloes from the Great Plains of the United States. Today, we have overfished all the marine fisheries in the world, as we focused our efforts on developing ever more efficient and destructive hunting techniques. We now deploy huge factory ships that can stay at sea for months at a time, reducing some species to commercial extinction.

We need to invest in the nascent technologies of fish farming. There is some effort at promoting farming of tilapia, sometimes called the aquatic chicken. In addition, integrating some aquaculture in the standard cropping techniques of the small-holder farmers has proven to be ecologically and economically viable. The private sector has invested in some high-value products such as salmon and shrimp. However, aquaculture is still in its infancy compared to other areas of food production. A massive international program is called for.

Marine organisms reproduce very quickly and in very large numbers, but the scientific farming of marine resources is almost nonexistent. Proper farming systems can be devised that will be able to provide cheap and healthy proteins for a growing population. About half the global population lives within a short distance from the sea. Given the billions that have gone into subsidizing commercial fishing fleets, it is inconceivable that no priority has been given to this kind of highly promising research. Decision-makers must address that need today.

Focus on the Poor

Science has been able to eke out of the green plants a system of food production that is capable of supporting the planet's human population. It is not beyond the ken of scientists to ensure that the bounty of that production system is translated into food for the most needy and the most vulnerable of the human family.

Science, technology, and innovation have produced an endless string of advances that have benefited humanity. It is time that we turn that ingenuity and creativity to address the severe ecological challenges ahead and to ensure that all people have that most basic of human rights, the right to food security.

Most of the necessary scientific knowledge already exists, and many of the technologies are on the verge of becoming deployable. It is possible to transform how we produce and distribute the bounty of this earth. It is possible to use our resources in a sustainable fashion. It is possible to abolish hunger in our lifetime, and we need to do so for our common humanity.



This article was published in the 25th anniversary issue of *Issues in Science and Technology*, Summer 2009. The magazine is published in the United States of America by the National Academy of Sciences, National Academy of Engineering, Institute of Medicine and the University of Texas at Dallas.



The Big Read Egypt/US: A Cultural Exchange Project

Sarah Elhaddad

“Creating a Nation of Readers. Inspiring people across the country to pick up a good book, listen to radio programs, watch video profiles, and read brief essays about classic authors”

A mission and ultimate goal set by the American National Endowment for the Arts (NEA), after publishing *Reading at Risk: A Survey of Literary Reading in America*, a report which identified a critical decline in reading for pleasure among American adults. In their efforts to address this crisis squarely and effectively, the NEA, together with Arts Midwest and the Institute of Museum and Library Services developed “The Big Read”.



The initiative supplies local institutions with a collection of books, and encourages them to choose one of the books to organize public events about it; the idea also involves creative reading programs, national publicity campaigns, and an extensive website providing information on books, authors and their works.

The Big Read Egypt/US

The idea of exchanging readings between Americans and non-Americans emerged as two works by two non-American authors were added to the Big Read collection in the United States: *The Death of Ivan Ilyich* by Russian writer Leo Tolstoy, and *The Thief and the Dogs* by Egyptian novelist Naguib Mahfouz.

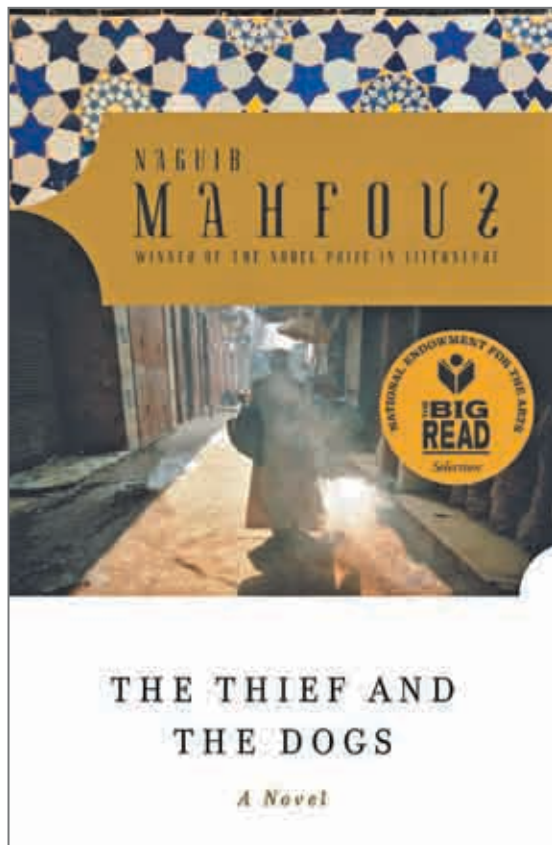
The Big Read Egypt/US was created as a collaborative project of the US Department of State and the National Endowment for the Arts in partnership with Arts Midwest, the US Embassy in Cairo, and the Institute of Museum and Library Services. Egyptian partners include the American University in Cairo, the Egyptian Association for Educational Resources and the Bibliotheca Alexandrina (BA).

The Big Read Egypt/US project aims at introducing American literature to the Egyptian reader, and Egyptian literature to the American reader. “The Big Read also introduces various cultural and historical aspects of each country to its people through literature” said Dr Sohair Wastawy, the BA Chief Librarian.

The project encompasses numerous activities from February to December 2009, including lectures, discussions, film screenings, play readings, essay and art contests.

During the launch of project, NEA Chairman Dana Gioia confirmed that cultural exchange needs to play a more important role in international relations. "There is no better way to understand another nation than to read one of its great books."

"The NEA is delighted to join with the State Department in The Big Read Egypt/US and to introduce one of Egypt's and the world's greatest writers to American readers," added Gioia.



Naguib Mahfouz is an Egyptian novelist and screenplay writer who was awarded the Nobel Prize for Literature in 1988. His novel *The Thief*

and *the Dogs*, which was first published in 1961, is a multi-faceted story that is equal parts crime thriller, morality tale, and political allegory.

Former US First Lady Laura Bush, who serves as the honorary chair of the Big Read, spoke at the BA of efforts to deepen and broaden cultural understanding, and celebrated the Egyptian-American cultural cooperation highlighted in the project. "Now the initiative will go international with the Big Read Egypt/US."

"This exchange will help inspire a love of literature in Egyptians and Americans while laying the groundwork for future collaboration between our nations" said Bush.

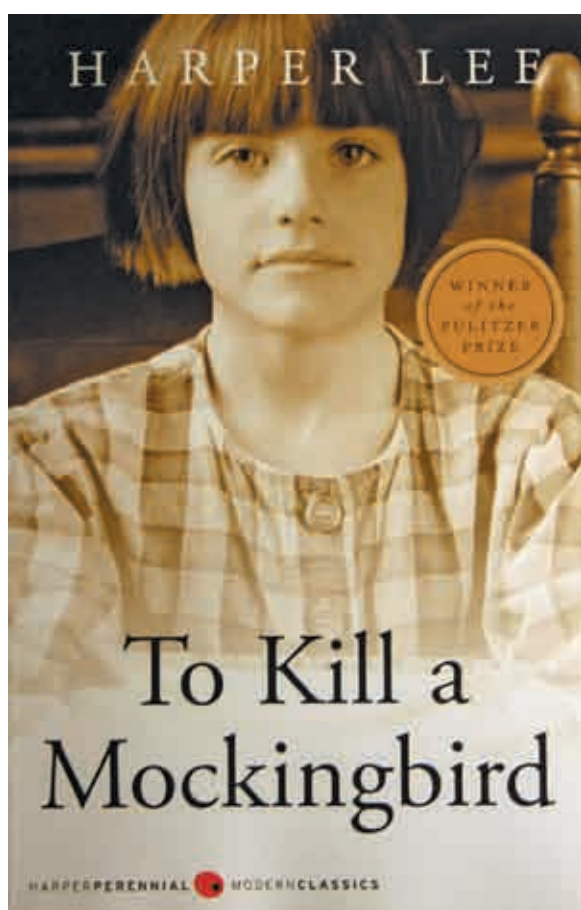
She added, "I'm looking forward to reading *The Thief and the Dogs* as my very next book, and then to visiting United States communities as they read this classic of Egyptian literature."

Events on a Selected Book

"While people in the US began their international reading program with *The Thief and the Dogs*, the Bibliotheca Alexandrina began its program with two books *To Kill a Mockingbird* by Harper Lee, and *Fahrenheit 451* by Ray Bradbury. Both books were translated into Arabic and distributed to the public free-of-charge" stated Wastawy.

To Kill a Mockingbird is a Pulitzer Prize-winner novel by Harper Lee published in 1960. A novel renowned for its warmth and humor, despite dealing with serious issues of racial inequality in two broad themes: tolerance and justice. More than 15 million copies of the book were printed and distributed worldwide, and it was translated into more than 40 different languages including Arabic.

“Language was never a boundary in conveying English literature to those who do not speak English” said Manar Badr, Head of Main Library Section at the BA. “In fact, Dr Dalia El-Shayal who translated *To Kill a Mockingbird* into Arabic was able to move the readers to the atmosphere and conditions in which the novel was written.” she added.



The events of the first phase of The Big Read Egypt/US held at the BA included lectures, screenings of the Oscar-winning film *To Kill a Mockingbird*, and a display for books about African-Americans in Literature available at the BA.

Participants also had the chance to attend a video conference with American Congressman Keith Ellison who discussed the novel with the

Egyptian public. “It is truly amazing to see how many of our readers participated, and how lively the discussions were” declared Wastawy.

The Bibliotheca Alexandrina launched four contests in the context of the first phase. The essay, art, photo and poster contests invited participants of all ages to share their experience of reading the novel and reflect their ideas and feelings about it through writing, drawing and photography.

The Big Read website (www.bibalex.org/libraries/BigRead) also provides additional intellectual content related to the novels “This is a very effective way to interact with the public. Even to those who did not read the novel, they get to read the biographies of the authors, find additional links on the novels, and know about the events of the project through the Calendar of Events” stated Badr.

The second phase of the project was launched by a book discussion and film screening of *Fahrenheit 451*, a classic novel set in the future. Youth were also encouraged to participate in the activities of the novel through animation, molding, and mosaic workshops, enabling them to create works of art inspired by the novel.

“As an exchange project, the main aim is to acquaint participants with American literature by getting more involved with the novels, and grasp their messages through the eyes of the authors. Hopefully, people in the US also got to know more about our rich Egyptian literature” said Badr. “Although the project will end in December, the Bibliotheca Alexandrina will continue to launch innovative projects to encourage reading in Egypt, and we will definitely continue organizing events on selected books” she concluded.

Supercomputer at the BA

Ayman Elsherbiny

“To be a center of excellence for the production and dissemination of knowledge, and to be a place of dialogue and understanding between cultures and peoples.” Mission Statement of the Bibliotheca Alexandrina (BA).

The first in Africa and the second in the Middle East, the High Performance Computing Cluster (HPC), also known as the Supercomputer, was launched at the BA on 30 July 2009 and the launching ceremony was attended by Egyptian Prime Minister, Dr. Ahmed Nazif. Such an initiative aims to reinforce the scientific research development in Egypt.



Dr Tarek Kamel, Dr Ahmed Nazif and Dr Ismail Serageldin launch the Supercomputer

The Supercomputer is the outcome of the protocol of collaboration signed between Dr. Tarek Kamel, Minister of Communication and Information Technology and Dr. Ismail Serageldin, Director of the Library of Alexandria, back in 2006.

“One of the fundamental goals in setting the Ministry of Communication and Information Technology (MCIT) strategy is to support the



The BA Supercomputer

scientific research in Egypt, for the advancement of the information society,” stated Dr. Kamel.

“Such collaboration between the MCIT, the BA, and the various research centers in setting the cornerstone for scientific research methods, gives a blast of creativity and opens new horizons for scientists and researchers,” he added.

The MCIT has taken the lead in the bidding process and has set the technical specifications collaboratively with a team from the BA ICT Department. Subsequently, both parties have jointly followed up the installation and the pre-

operational testing in compliance with quality standards.

Dr. Serageldin pointed out that the BA, being a focal point for knowledge and science, aspires to offer a broader scope for research and to provide a wide array of services for scientists and researchers in the region. Hence, part of the project will focus on building the users' capacities to maximize the utility of the Supercomputer to its fullest.



Dr Ismail Serageldin during the launch of the Supercomputer

The Supercomputer cluster will be deployed for specialized applications that require immense amounts of mathematical calculations. Due to the significant speed of its processors and its storage size that reaches up to 36 TBytes (36,000 gigabytes), it is considered a valuable tool for researchers seeking optimum, accurate results.

Moreover, at peak performance, the Supercomputer can perform up to 11.8 TFLOPS (1012 Floating Point Operations Per Second), owing to the built-in 130 computational nodes (PCs), in addition to the 6 management nodes, which render the Supercomputer a large and fast computational resource for scientists in order to conduct their research at a rate of trillions of calculations per second. Furthermore, the cluster is maintained by a management network as well as a backup system for data restoration.



There are various scientific research domains and applications where using the Supercomputer can make quite a difference, as in bioinformatics, data mining, computer vision, image processing, physics simulation, weather forecast, finite elements, oil and ground water exploration, astrophysics and cloud computing.

Last July, Henry Markram, Director of the Blue Brain Project, claimed that a detailed, functional artificial human brain could be built within the next 10 years thanks to Supercomputers, which is capable of processing data of the project.

The Blue Brain project at Switzerland's École Polytechnique Fédérale de Lausanne (EPFL), was launched in 2005 and aims to reverse engineer the mammalian brain from laboratory data.



Supercomputer at the BA

Interview with the BA Chief Librarian

Dr Sohair Wastawy: “Libraries will stay for a long time to come”*



You have a privileged position as Chief Librarian at the Bibliotheca Alexandrina (BA), could you tell us a little about yourself?

First, no matter what position I have and which library I work at, I think of myself as a librarian through and through. I began my library career in 1975 at the Cairo University Central Library. I was then a new college graduate and was working on my Master's degree in African languages. After I was done, I began my Doctorate in Comparative Linguistics and when I completed my thesis, I could not find a job that suited my skills as a linguist. I decided to stay in the library world as I was intrigued by the technology which had begun to infiltrate the field.

In 1980, I decided to begin my formal studies in librarianship and went to the USA where I enrolled at the Catholic University of America in

Washington DC. After I completed my master's degree, I continued with my studies at Simmons College in Boston, MA and obtained my PhD in Library and Information Management in 1987. I began my professional career at Illinois Institute of Technology in 1988 as a researcher and in 1991, I was selected to be the Dean of Libraries at the Institute. In 2004, I was invited to come back to Egypt, my home country, and become the first Chief Librarian of the Library of Alexandria. Though I had built a family and career in the US, it was difficult to turn this offer down. For one, to serve my country and second to be associated with the legacy of the new heir of the Ancient Library.

The New Bibliotheca Alexandrina is committed to evoking the spirit of openness and scholarship of the original Bibliotheca Alexandrina. It is much more than a library... What does it contain? What are the most important activities? What is your role as Chief Librarian?

The Library is a center of learning. Because people learn in different ways, the Bibliotheca Alexandrina is designed to include all means of learning, be it for a child, a young person, an adult or a special-needs person.

The BA has a Main Library that can hold millions of books: Six Specialized libraries for: Arts & Multimedia; the Blind and Visually

*The interview was published in the July-August 2009 issue of *Documentation Magazine* of the International Documentation Sciences Foundation based in Spain, under the “Professionals in Information and Documentation” section.

Impaired; Children; Young Adults, Rare Books and Special Collections, and Digital Library. It also has the Internet Archive; Four Museums for Antiquities, Manuscripts, the History of Science, and President Sadat; a Planetarium, an Exploratorium for children, a Culturama (a cultural panorama over nine screens, the first ever patented 9-projector interactive system), VISTA (The Virtual Immersive Science and Technology Applications system which is an interactive Virtual Reality environment, allowing researchers to transform two-dimensional data sets into 3-D simulations).

The BA also has seven academic research centers: The Alexandria and Mediterranean Research Center (Alex-Med), the Arts Center, the Calligraphy Center, the Center for Special Studies and Programs (CSSP), the International School of Information Studies (ISIS), the Manuscript Center, and the Center for the Documentation of Cultural and Natural Heritage (CultNat, located in Cairo); Nine permanent exhibitions: Impressions of Alexandria: The Awad Collection; The World of Shadi Abdel Salam; Arabic Calligraphy; History of Printing; Artist's Book; Arab-Muslim Medieval Instruments of Astronomy and Science, Mohie El Din Hussein: A Creative Journey, Abdel Salam Eid, and Raaya El-Nimr and Abdel-Ghani Abou El-Enein; Four art galleries for temporary exhibitions; a Conference Center, and a Dialogue Forum which provides opportunities for the discussions of various salient issues affecting modern societies. The Library also hosts 11 international and regional institutions.

As the Chief Librarian, I have complete oversight on the activities, programs, services, human and fiscal resources of the Main Library and Special Libraries.

What was the most difficult part in the reconstruction of the Library of Alexandria? And What are the challenges faced by the New Bibliotheca Alexandrina?

You cannot actually reconstruct an organization that existed 20 centuries ago. You do that in spirit more than a system. The Ancient Library was a place of science, arts and dialogue, and it is that environment we are trying to recreate.

As for the challenges, the BA like any organization is facing the current economic challenges, in addition to the challenges that developing countries face where education is to some extent compromised and where poverty keeps people busy trying to find their next meal instead of advancing their skills and learning.

Is the BA, as a public library prepared for dealing with the global financial crisis that we are currently going through?

Public libraries, more than many other organizations, are used to financial crises. You can never depend on one source of funding and for that reason, we learned to diversify our resources as businessmen do when they diversify their portfolios. You try to weather the storm and cut whatever fat you built in good times and run lean without cutting major services. You must prioritize to keep your doors open for the good of the society.

How do you see the future of mass digitization projects and their implication for libraries?

Every age has its tools. We live in the midst of an information revolution and the digitization of a nation's literary and scientific works, as well as its tangible and intangible heritage, is

very important. Because libraries offer more than books, they will continue to be needed. Not everyone owns a computer or has access to the internet. For those who don't have access to these technologies, libraries will remain an important source of information. Also, for those who do, libraries offer a great deal of services, chief among them is helping people find good and authorized sources of information.

It is hard to search the wide web without a librarian's help and it is difficult to get multi million hits for every search query you do on the web and be able to sort the wheat from the chaff without a deep understanding of the information structure and research methodology. Librarians are trained and understand how to carry out these tasks, thus, their skills are more needed now than ever before. I personally think that libraries will be with us for a long time to come, and like *Borges*, I too, have always imagined that Paradise will be a kind of library.

Based on your experience, what skills does a person need to become a librarian?

A person who is looking for a career in librarianship must be an inquisitive person, someone who believes in freedom of expression, freedom of access to information and freedom of speech. He or she must believe that learning is the savior of nations and people, and that the library is the real platform for learning, democracy and equity. A librarian must have a set of skills that range from being a bibliophile, an information technologist, a literary critic, a community leader, to a fundraiser. These are skills that can be acquired, but passion for service must be inbred for a librarian to succeed.

Let's talk about the formation of information professionals. Are librarians well-trained in your country?

Though Egypt had libraries for ages, the number of libraries in our cities is still limited and almost non-existent in some villages and remote poor areas. Not growing with libraries made the library profession less attractive and for that, library education suffered in terms of the capacity of its graduates to practice what they have been taught. However, libraries are increasing in a very healthy rate and library education is improving. The library profession in Egypt and MENA region still has a long way to go.

What impression do you have of Spanish information professionals? How do they compare with Egyptian professionals?

I have been to a few of the Spanish libraries in Barcelona, Madrid, and Seville. I can truly say that your libraries and librarians are more advanced compared to ours, though the Library of Alexandria seems to have bypassed some of the best in the world. The BA, however, is an exception and not the rule.

Today, everybody is talking about e-books and how they can replace traditional books. In your opinion, what is the future of books and libraries?

E-books are great but not for everyone. New technologies don't always replace older ones. We must remember that e-book readers and the books you read on them are never free. Though TV and Radio are good examples for technologies that affected one another, each continued in its own way. But there are some technologies and tools

that are almost irreplaceable such as scissors, forks and knives. I think books fall in the same category. I feel that books will be with us for a long time to come and so will libraries. Also, remember that there are three billion people who live in squalor and misery without access to proper sanitation. One billion of them have no access to safe water at all, let alone electricity and computers.

How is digitization affecting physical library space?

Digitization definitely creates additional space in any library and that gives librarians the opportunity to use this space in ways that are creative to serve our communities better. If we take the Ancient Library of Alexandria's concept of learning, we will realize that having big halls with book shelves and tables is a far cry from what a library should be. A library is a place that caters for all modes of learning and all types of

material. People learn differently and have different cognitive learning styles. Creating a space for the arts, meetings, and experimentation for example is as important as creating a space for reading. So, new technology has given us the opportunity to rethink the library's mission and form its space to fit its function.

What book are you currently reading?

I am reading an excellent hard-bound book on President John Adams by David McCullough.

Is there anything else that you want to add or that you wished I'd ask you about?

I wanted to be asked about my hopes as a librarian.

I truly hope to touch someone's life through reading, learning, and knowledge. In short, to make a difference in the world.



Inside the BA

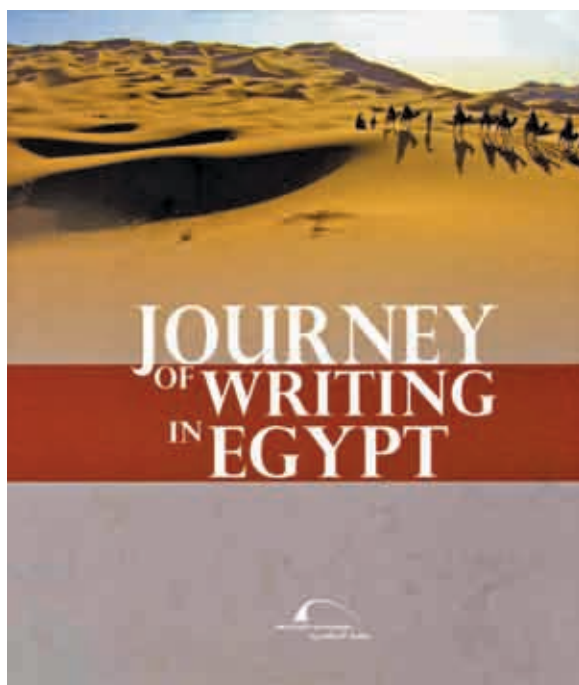


Book Review

Journey of Writing in Egypt

The BA Latest Publication

Sarah Elhaddad



Journey of Writing in Egypt is yet another publication which reflects the Bibliotheca Alexandrina (BA) objectives; becoming Egypt's window on the world, and the world's window on Egypt, and a center for dialogue between peoples and civilizations.

The publication, issued by the BA Calligraphy Center, explores how different writings developed in Egypt, displaying the several phases of their invention and evolution. It targets different cohorts aiming at increasing cultural awareness in the community. *Journey of Writing in Egypt* is an outcome of the work of a number of eminent researchers who traced the constantly changing system of language in Egypt.

It is a monograph containing 18 articles written by Egyptian and Non-Egyptian researchers on the evolution of writings and scripts in Egypt. The scripts are sorted in chronological order according to their appearance in Egypt. Articles include "Writing and Language of Ancient Egypt" by Khaled Dawoud; "Ancient Egyptian Graffiti" by Mohamed Sherif Ali; "Carian Inscriptions in Egypt" by Sobhy Younes; "Aramaic Inscriptions in Egypt" by Margaretha Folmer, and much more.

Understanding the evolution of writing in Egypt is provided by visual evidence represented in the photography and filming of writings, taken by the editors of the publication in their original places. The pictures provided in each of the articles represent a gallery of its own, documenting Egypt's most famous scripts.

Writing in Egypt is a journey of progress that started with a simple form of drawing or vocal expression until the currently known Arabic inscriptions. Writing also traveled on the Egyptian land, from east to west and from north to south, enjoying a rich geographical journey. Records provided in the articles display the various languages spoken in Egypt which resulted into ancient Egyptian scripts (Hieroglyphic, Hieratic, Demotic, and Coptic), Greek scripts and finally Arabic scripts. Tolerance of the Egyptians for foreign communities who lived in Egypt at a certain point of time is also abundantly clear

in Hebrew, Armenian and other foreign texts discovered in Egypt.

In his article “Early Writing in Ancient Egypt”, Gunter Dreyer reveals that the most important source of information concerning the development of writing in the Pre-Dynastic Period are the artifacts found in the tomb U-j in Abydos. Ink inscriptions consist of one or two large signs, usually of a tree, plant or animal (scorpion, fish, fig), revealing that it is quite plausible that the signs refer to the place of origin of economic estates which were founded by various kings, as trees for example mean plantation, and animals mean the name of kings. Phonetic spelling was also found on some of the labels, inscribed with a snake above triangles and mountain peaks which are known in hieroglyphs for the sound values (dj) and (dju).

Khaled Dawood presents his research in “The Writing and Language of Ancient Egypt” defining the stages of Ancient Egyptian language to the ancient Egyptian era that included Hieroglyphic and Hieratic scripts; Middle and Late Egyptian era including Hieroglyphic, Hieratic and Cursive Hieroglyphs scripts; Late Period of the Middle Kingdom including Demotic language; and finally the Islamic/Coptic period including the Coptic alphabet.

The publication reveals that the standard form of Coptic language started by the end of the Third Century CE and Early Fourth Century. It is the ancient Egyptian language in its latest development, written using the Greek alphabet with some additional signs derived from Demotic, and with a number of letters that varies from one dialect to another. The Coptic texts found in Egypt are mainly Christian, with some legal and medical texts. The language is characterized by

its numerous dialects, the most of which are the Sahidic dialect of the inhabitants of Upper Egypt, and the Bohairic dialect of Lower Egypt.

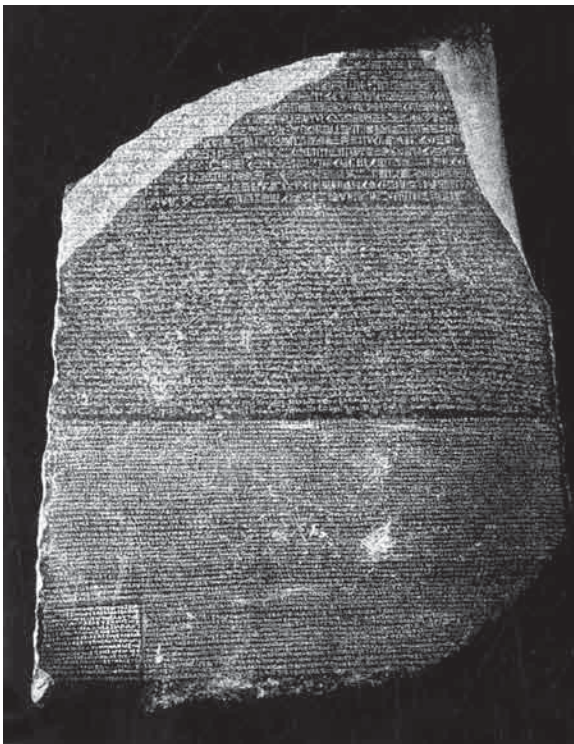
Greek language inscriptions appeared in Egypt in the second half of the Seventh Century BCE, found in Abu Simbel in Upper Egypt, on one of the legs of a Ramses II statue. The article by Mahmoud Elsadany clarifies that the study of Greek papyri which was found in many parts of Egypt including Al-Fayyum, Alexandria, Sinai, and Upper Egypt, showed that the Ptolemaic administration in Egypt relied totally on the Greeks in all fields including the navy, the army, commerce, agriculture, art and literature. It also revealed another Greek community in the



Colored illuminated Hieroglyphs. Tomb of Ramses IV

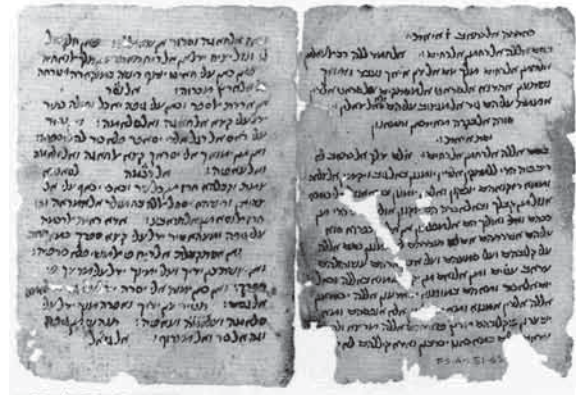
Egyptian countryside that was more Egyptianized and deeply influenced by the Ancient Egyptian civilization.

Editors reveal in *Journey of Writing in Egypt* that the discovery of the Rosetta Stone by engineer officer, Captain Pierre Francois Xavier Bouchard, during the French campaign on Egypt in 1798, is considered the most important discovery concerning the nature of Hieroglyphic writing. It is also recognized as the most valuable relic of antiquity and became the most famous piece of rock worldwide. The Stone is inscribed in three scripts, 14 lines of Hieroglyphics, 53 in Greek, and 32 in Demotic. Various scholars became interested in decoding the text in the Stone, but Silvester de Stacy achieved the first breakthrough with the Demotic language through identifying personal names in the text, while Thomas Young was able to identify the personal names and values of five signs in the Stone's Hieroglyphics text.



The Rosetta Stone

The history of Hebrew writing in Egypt is identified in the research of Mathew Martin, who discovered that although Jewish people were probably present in Egypt since Biblical times, perhaps as early as the Late Eighth Century BCE, it is only during the Medieval period and the wealth of documents discovered in the Cairo Genizah that Egyptian Hebrew writings were obtained. Mainly because Hebrew was not the Jewish Community's main language of written communication which often relied on Aramaic, Greek and Arabic languages. Martin also explained that a handful of Hebrew inscriptions and papyri are the base of narrating the history of Hebrew writing in Egypt which revealed that it is under the rule of the Islamic Caliphate in the Middle Ages that the Hebrew writing in Egypt was most widespread.



Quran, Suras 1 and 2, in Hebrew transliteration, the Cambridge Genizah collections

Inscriptions found in Deir al-surian, or the Monastery of the Syrians, at Wadi al-Natrun, in Egypt, provide evidence that the land of Egypt preserved a wealth of writings in Syriac (an East-Aramaic language spoken and written by Christians in Syria and Mesopotamia). The publication also reveals the origin of many scripts found in Egypt such as Cuneiform, Armenian and Tifinagh writings, leading to Arabic Inscriptions in Egypt.



Deir al Surian in Wadi al Natrun

“Where Arabic calligraphy originated is still a subject of dispute among scholars” mentions Dr Khaled Azab in his research. Some claim that it first came into being from the Levant, others believe that it originated in the Hejaz.

However, since the beginning of Islamic history, Muslims have used two types of scripts representing the two main styles in Arabic calligraphy; the dry writing known as “Kufi”, with its straight lines and acute and right angles; and the Cursive style with its curved and round characters. Each script witnessed numerous stages of development and creativity, forming the foundational text, which is a simple elegant Kufi type of writing, the floriated Kufic calligraphy which is found on the walls of Al-Azhar Mosque; and geometric Kufic which is characterized by its angled letters. The book also explains the history of the Cursive script, Nastaliq script, and the Thuluth script, which flourished in the Mamluk Egypt.

The five-year project of documenting the Journey of Writing in Egypt is finally a reality with *Journey of Writing in Egypt*, revealing the various writings that emerged on the land of Pharaohs, exploring their appearance and disappearance, and evaluating their influence and interactivity with the local society.



Floriated Kufic calligraphy in Al-Azhar



Sultan Babers al-Jashankir's Mushaf, Mamluk Mushaf

The project was also accomplished with the contributions of various institutions including the Supreme Council of Antiquities, the Ägyptisches Museum und Papyrussammlung (Berlin), the Österreichische Nationalbibliothek, the Turin Museum, the British Museum, the Coptic Museum and the Egyptian Museum (Cairo).



The Imam and the Pastor “Peace is Divine”

Kholoud Said



Wuye and Ashafa

“Since war begins in the minds of men, it is in minds of men that defenses of peace must be constructed”, UNESCO Charter.

Violence dominates the world because it replaced dialogue and exchange. When dialogue regains its place, peace will prevail.

The BA screened *The Imam and the Pastor* on 27 May 2009. Filmed between 2004 and 2005, and produced in 11 languages so far, the movie is a documentary on how an Imam and a Pastor managed to make peace in a country torn by religious strife. This first public screening in Egypt was followed by open discussion initiated by short lectures by Imam Mohamed Ashafa and Pastor James Wuye, who attended the screening, together with the Assistant Producer Imad Karam. The event was organized by the Institute for Peace Studies, the BA Dialogue Forum, the Arab Society for Reform and Development and the Moral Rearmament Organization.

The experience, however, went far beyond just being a film screening.

The film opens by a child roaming about a deserted landscape. The next shot is of a scattered piece of newspaper with “What a Nightmare” reading the headline. We are then in the middle of a mass grave, with a sign of “Third Grave 110 people”.



Shot from *The Imam and the Pastor*

This was the context in which Imam Mohamed Ashafa and Pastor James Wuye co-founded the Inter-Faith Mediation Center with its Muslim Christian Dialogue Forum in Kaduna, Northern Nigeria, in 1995. The slogan was “Peace is Divine” as stated on their vans, “culture of violence” as the main barrier and “humanize the other” as the main principle. Pastor Wuye said once in an interview: “We ‘deprogram’ people by making them aware of what the other side is thinking; but things did not start that easy. The two men were in fact fierce enemies.

Muslims and Christians, equal when it comes to the percentage of population, co-lived peacefully in Nigeria until the last quarter of the 20th century. Then, economic drawback, religious extremism and political unrest, all contributed to tension between different groups since the 1980s. It is estimated that in the last decade, over 150,000 lives have been lost to such conflicts in Nigeria. Kaduna has until fairly recently (the last four years), been the hotbed of ethno-religious conflicts in Nigeria. The various communities competed for a greater share of the limited socioeconomic resources and for political power, each feeling itself politically and economically marginalized. A fight over the location of a market brought about a crisis to the area, leaving an estimated two-thousand people dead, eighty-thousand displaced, and many private homes and business premises looted and destroyed. It was then that hostility started, and from then it was very difficult to stop.



Pastor James Wuye

Pastor Wuye, then referred to as “coach”, joined the armed groups to “protect [his] own people... If Muslims have spare lives, we can borrow them”, he believed. He recalls his own feelings: “My hate for Muslims had no limits, and no Muslim whatsoever ever impressed me”. James Wuye lost his own hand during these fights. At the other end, things were not better at all. Ashafa then believed he was “defending [his] faith by killing the others”;

but at the end of the day his spiritual mentor and two of his cousins were killed. “I wanted revenge”, he recalled.

Both men met coincidentally in a meeting gathering representatives of religious groups at Kaduna State Government House in mid-1990s, and a common friend called upon a reconciliation. Unsurprisingly, the situation provoked suspicion. For James, Ashafa’s appearance was an embodiment of an Islamic fundamentalist, but a turning point shortly crossed the way. When James’ mother was ill in hospital, Ashafa came to visit, and later came to offer consolation after her death.

Ashafa was slowly discovering the “power of forgiveness” in Islam, the ability to “turn the evil with that which is good”. Prophet Muhammad prayed to God (Allah) to forgive his own people in spite of all the hardships they caused. Resorting to that, Ashafa decided to take the step.



Imam Mohamed Ashafa

From his side, James recalls this incident as a turning point which deeply influenced the course that his life later took. He decided to pay Ashafa a visit in the mosque. Bearing the context and the background in mind, this was for James like “breaking his own heart”, committing suicide. Nonetheless, he went on in the same path. Christ is love and his message is one of love, he believed. “You cannot preach Christ with hate... I was

anxious to meet Ashafa. It was like a lover meeting his love. That was really when I was in this work”.

The story better comes from their own words as stated in their book *The Pastor and the Imam: Responding to Conflict* (Lagos: Ibrash Publications, 1999):

Everyone was trying to outwit the other. To the Pastor, the goal was total evangelization of the country, while for the Imam it was total Islamization. These were our positions before that fateful meeting and introduction.

Then we started talking, each of us carefully selecting his words. We were conscious that here were two “enemies” coming face to face for the first time, on a ground that was not conducive to flexing of muscles. In our eyes, one could read hatred, anger and resentment, all covered with the cynical smiles that frequently flashed across our faces. Each was highly suspicious of the other.



To our very great surprise, as this discussion progressed, we were both startled by some discoveries. Hidden behind the turbaned Imam was a gentleman, not the violent man that the Pastor had assumed he was. Similarly, the suited Pastor was a bird of the same feather as the Imam. We found that we had a lot of things in common. From this, the idea of collaborative problem-solving was initiated. (Ashafa and Wyue, page 20).

This reconciliation brought about a lot of fuss and resistance. In a country still torn by religious tension, a Pastor and an Imam co-establishing a conflict resolution, conflict transformation, conflict prevention center, and becoming instigators of peace was totally unheard of.

Working on rebuilding trust in conflict zones, Ashafa and James use themselves and their own story as a living proof. They have passed through all phases of a conflict themselves; the once leaders of militant groups reached durable, positive peace. It is attainable; they did it, and thus the whole community can.

They began working as mediators in a mosque almost demolished in an attack, a stunning symbol of conflict transformation in itself. Their work had been recognized at the highest levels of the Nigerian Government, and was a testimony to what could be achieved through dialogue. In August 2002, 11 Muslim leaders and 11 Christian leaders signed the Kaduna Peace Declaration, adopted by the Kaduna Peace Committee, witnessed by the Governor of Kaduna State and members of the diplomatic corps, and unveiled by the Nigerian President.



Recent achievements include mediation of the Yelwa-Shendam Peace Affirmation that was signed in February 2005, and facilitating the

Peace Initiative of Pan and Goemai in July 2006. Another initiative has led up to the rebuilding of the community's market, whose breaking ceremony took place in March 2006. Banners reading "We all need peace to worship" could be pinpointed during the celebration.

Their story is a case study of a successful grassroots initiative to rebuild communities torn apart by conflict, and it never ceases to raise fascination and admiration worldwide. It is a story of transformation on the basis of acceptance from hate to love, vengeance to forgiveness, exclusion to inclusion.

Ashafa and Wuye are presented as role models for peace. They promote a culture of peace by calling for coexistence, pluralism and inclusiveness. They have been invited to speak in international gatherings about the relationship between peace and development and won the Bremen Peace Award in 2005 for exemplary commitment to peace, justice and the integrity of creation.

In atmospheres charged with root causes of a conflict, religion is always manipulated and perverted in a culture of violence. Recognizing that their two faiths contain warrants for peace, they try to highlight the true essence of religion by referring to the Qur'an and the Bible. In 1999, they coauthored a book which describes their experiences and sets out the biblical and Qur'anic mandates for peace. It is designed "to appeal to the ordinary Christians and Muslims of Nigeria and also to any community where ethnic-religious conflict has destroyed the very fabric of society" (Ashafa and Wuye, p. 145).

The basis of their work is their friendship, "mutual respect and absolute trust" as Ashafa puts it. Travelling for long distances to conflict

areas has become part of their lives. "We are like a husband and a wife who cannot divorce because their children will suffer", noted James.



Artistically speaking, the 39-minute long film is visually beautiful, emotionally impressive, inspiring and thought-provoking. It is a worthwhile watching movie.

Narrator: Rageh Omaar

Producer/Director: Alan Channer

Assistant Producer: Imad Karam

Executive Producer: David Channer

Produced by FLTfilms- For the Love of Tomorrow.

"Let us forget our differences... No! Let us understand our differences", Sir Ahmadu Bello, the first Premier of Northern Nigeria shortly after Nigerian independence in 1960.



History

Italian Architecture in Alexandria*

Sarah Elhaddad

Alexandria is the meeting point of ancient civilizations and the Arab Tourism Capital of 2010. A city that once embraced different cultures, nationalities and religions that shaped its features, and provided its visitors with a history, story, struggle, and a message in each of its corners and buildings.

The architectural history of the city reflects the interaction between the Roman and Egyptian cultures and civilizations, in addition to the emergence of Christian and Islamic architecture styles. The Italian presence in Alexandria and its impact on architecture is also traced during the Ottoman rule and until the 1960s.



Italian Consulate by Enrico Bovio, Lanari contractors

In a journey back to cosmopolitan Alexandria, the Alexandria Preservation Trust published *Italy in Alexandria: Influences on the Built Environment* by Dr. Mohamad Awad, Director of the Alexandria and Mediterranean Research Center at the Bibliotheca Alexandrina (BA). The book is considered the latest documentation of

the diversity Alexandria enjoys. It provides a study of the architectural and urban development of the city, focusing on the Italian influence on modern Alexandria.

Early Influences

The early years of Roman rule in Alexandria did not have any impact on its architecture, and the only buildings mentioned in the writings of historians such as Strabo and Philo were the ones left by the Ptolemies such as the Gymnasium, the Emporium, Pharos, and the Caesareum that was mentioned by Philo in his writings: “*For there is elsewhere no precinct like that which is called the Sebasateum, a temple to Caesar-on-shipboard, situated on an elevation facing the harbors renowned for their excellent moorage.*”

The Roman amphitheatre in Kom El-Dikka is considered the most prominent Roman site in Alexandria. The site plan of the amphitheatre reveals a complex including baths, cisterns, a housing district, shops and classrooms of the philosophical schools. This era also marks the establishment of Kom El-Shoqafa catacombs which consist of four floors, and best reflects the combination between the Egyptian, Greek and Roman styles. An Alexandrian Classical Architectural Style was created during these years; It can be described as hybrid, born from a union of eclectic and mixed sources. It combines Egyptian, Hellenistic, Roman and Byzantine traditions and embodies the continuity and superimposition of influences.

*This article is based on the publication “Italy in Alexandria” by Dr. Mohamad Awad.



Roman Amphitheatre at Kom El-Dikka today

A blending of Christian and Roman styles emerged in Alexandria, witnessed in the site of St. Menas (North of the district of Borg El-Arab) a complex that contained a basilica, water cisterns, baths, system roads and shops, and reflected Roman architectural traditions.

Despite the prosperity of trade in the early years of Islamic rule in Alexandria which brought 3.000 European traders to the city –mostly Italians– the Ottoman invasion in 1517 brought the worst decline the city has ever experienced in all fields, including architecture. Traveler Pietro Della Valle describes the city in 1650: *“I stayed but a little in Alexandria because it is a malarial place, and there is very little to see.”*

Italian Monopoly

The Renaissance project led by Mohamed Ali Pasha, the Viceroy of Egypt marked the first traces of Italian influence in Alexandria. Mohamed Ali's vision to revive Alexandria included many projects such as the digging of the Mahmoudieh Canal, the creation of a new port and arsenal, and the expansion of the city to include new European quarters that matched those of the Great European Capitals.

European experts and professionals were granted very attractive job opportunities in Egypt to participate in the modernization projects. The first Italian architect to arrive in Alexandria was “Romero”. He was appointed to build the Ras El-Tin Palace. Romero was followed by Francesco Mancini in 1820 who worked in the service of Ibrahim Pasha and designed the Oranato building. It was the first planning commission in the city, modeled on similar Commission d’Ornato already functioning in Milan and Venice.



Entrance to Ras El-Tin Palace

Pietro Avosciani, another Italian architect, had many contributions in Alexandria including The lazaretto building, the Viceroy's Palace in Mex, and the stock exchange in Mina El Basal. *“Avosciani presented in his interpretation of the Orient marriage with the Occident in an astonishing combination of domes and tower minarets.”* Says Awad.

As the number of Italian migrants increased in Alexandria in 1940, the *“Colonia Italiana”* became the second largest foreign community in the city after the Greek community, and Italian professionals became more involved in developing the city of Alexandria through architecture, even conducting their own private projects. Italian contractors also found in Alexandria a great business opportunity and unchallenged

employment, working in public projects and private developments.

Italian involvement in architecture included projects requested by the Pashas, designing public buildings for the city, private works for foreign communities, and the Italian community buildings. Several forms of Italian monopoly of architecture in Alexandria continued to appear until the early 1930s, and the most distinguished projects conducted in Alexandria by Italians included the Mohamed Ali Square, the Zizinia Theatre, and the Mixed Tribunals.



Mohamed Ali Square

Renewed Cooperation

Italians played a very important role in rebuilding Alexandria and shaping its architecture despite the British bombardment in 1882, and the second world war. Great projects and new buildings continued to grow in the city, including the Ramleh Railway Station, the police station at Bab Sharki, and the Anglo-Egyptian Bank. However, economic and political problems in Egypt caused the foreign role that once flourished in the city to decline. The Montreux Conventions of 1936 brought the end of capitulations leading to the abolition of mixed tribunals and the termination of the special economic privileges granted to foreigners. The post 1960s era was dominated by

decolonization and state socialism, ending 150 years of cosmopolitanism in Alexandria, and the Italian monopoly of architecture.



Police Station at Bab Sharki

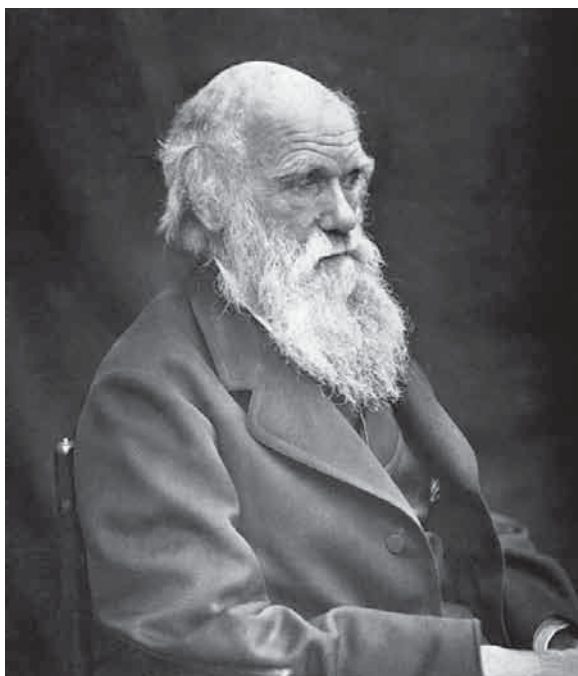
Italian participation in modern Alexandria was highlighted in the international competition for the design of the new Library of Alexandria “Bibliotheca Alexandrina”. The Italian participation included 44 final submissions, and the Manfredi Nicolletti team received the second prize. Italian Studio Bertocchini and Ruggiero in collaboration with Alexandria and Mediterranean Research Center, suggested a new vision for the Eastern Harbor, and the area around the (BA), with proposals for building a hotel, underwater museum, aquarium, a Euro-Mediterranean Stock Exchange and a museum at Fort Qaitbey.

“*Italy in Alexandria*” provides historical photos and rare maps describing the development of architecture in Alexandria including photos of classical buildings that remain to this day, and maps drawn by historians in their endeavors to record the topographical nature of the city. “The attempt to discover the classical city of Alexandria and the analysis and survey of its built environment remains, to this day, a difficult and controversial task” states Awad in his book.



Darwinism: A Global Celebration and Debate

Sherihan Aref

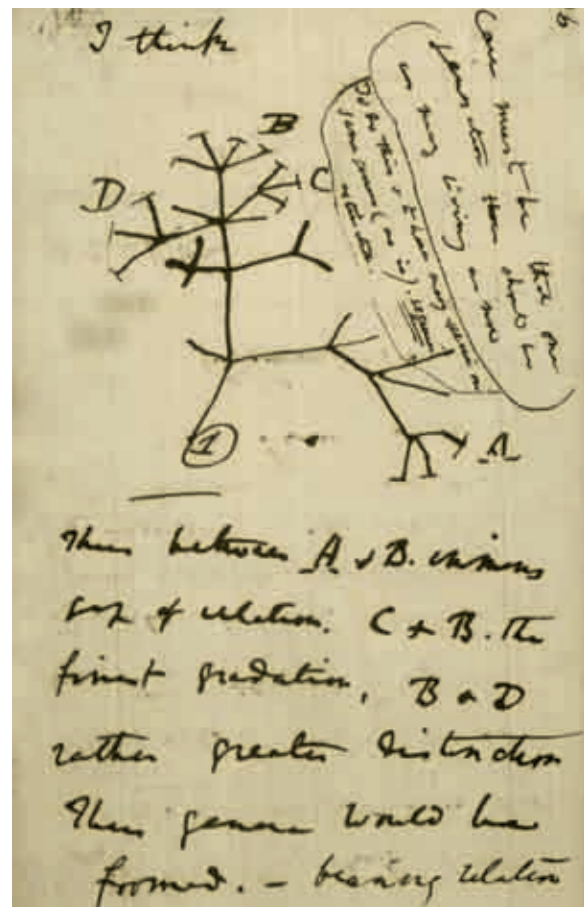


Charles Darwin, father of evolutionary theory, www.wikipedia.org

The relationship between family members and generations over time is commonly illustrated in a diagram known as a “family tree”. Similarly, in the birth of the evolutionary theory the English naturalist, Charles Robert Darwin, sketched a “tree of life” to visualize a concept that has shaped the fundamentals of modern biology, also known as Darwinism. In the beginning of the 1800s, scientists were concerned with the kinds of fossils, their origin and functions. They predicted that a process of evolution has taken place. However, such assumptions were later explored by Darwin. He speculated that living organisms fitting in their environment are more likely to survive and reproduce due to natural variations, which they

pass on by heredity. Eventually, the species evolve over time. In view of that, Darwin came up with the theory of evolution caused by a process of natural selection. He stated “*I have called this principle, by which each slight variation, if useful, is preserved, by the term Natural Selection.*”

Darwin presented his concepts in his book *On the Origin of Species by Means of Natural Selection*, which marked the turning point of



The “tree of life” sketched in Darwin’s notebook, www.darwin-online.org

scientific history. Therefore, in honor of “the father of evolutionary theory”, global celebrations have been taking place particularly in the year 2009 signifying the bicentenary of Darwin’s birth and 150 years since the publication of his theory.

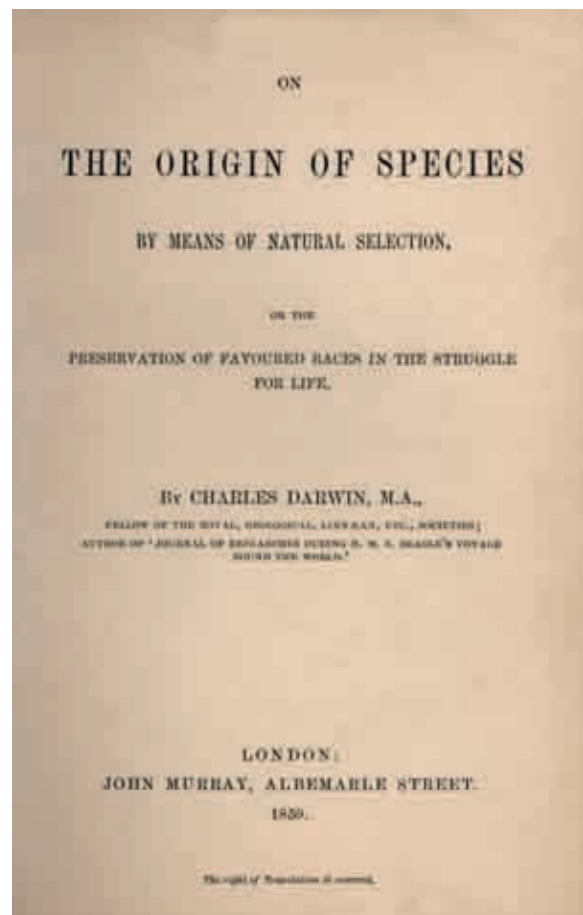
Forming the Complete Picture

The evolutionary theory has been recognized after long years of nature inspection including a five-year scientific expedition aboard the survey ship HMS Beagle, in which Darwin observed the various geological formations, fossils, and living organisms across the coasts of South America and Australia. He began relating his observations to Sir Charles Lyell’s arguments in the *Principles of Geology*. Lyell portrayed that Earth’s surface undergoes constant change and that fossils found in rocks demonstrated the previous existence of animals. Moreover, Darwin noticed that certain fossils bear a resemblance to living species in the same geographical areas. At the Galapagos, a group of volcanic islands in the Pacific Ocean, he realized that each island belonged to its own form of finch which were closely related, but the structure and eating habits varied.

The young naturalist was further influenced by the British economist Thomas Robert Malthus, who argued in his book *An Essay on Principle of Population* that any increase in the food for human survival is not relevant to the growth rate of the population. Darwin applied Malthus’s argument to plants and animals and came up with the idea commonly known as “survival of the fittest”. Darwin noticed variations in every group of inhabitants, as well as competition over limited resources.

However, Darwin discovered that his ideas were similar to what was presented in the essay *On the Tendency of Varieties to Depart Independently*

from the Original Type, by the naturalist Alfred Russel Wallace. Thus, according to Lyell’s suggestion, both Darwin and Wallace presented their findings at the meeting of the Linnaean Society of London in 1858. A year later, Darwin published his theory of evolution in *On the Origin of Species by Means of Natural Selection* which had been described as “the book that shook the world”.



The first page of Darwin's masterwork published 150 years ago, www.wikimedia.org

Celebrating Darwin

In spite of many opposing ideas, on the first day the book was released, it sold out and today the world continues to remember Darwin and the publishing date of the book. Commemorating

this occasion, the Bibliotheca Alexandrina (BA) in cooperation with the British Council will be organizing the Darwin Now conference, entitled “Darwin’s Living Legacy: A Conference on Evolution and Society”, 14 to 16 November 2009, to discuss Darwin’s theory, its controversies and the latest relative developments.

On the BA premises, nearly 30 speakers from internationally prominent academics are expected to participate, bringing together worldwide experiences essential to the understanding of science and nature. Among these experts, Marc Von Montagu, President of the Institute Plant Biotechnology for Developing Countries (IPBO), Belgium; John Hedley Brooke, Professor of Science & Religion in Faculty of Theology, Oxford University, United Kingdom; Nidhal Guessoum, Professor of Physics and Astronomy, American University of Sharjah, United Arab Emirates; Patrick Bateson, Professor of Department of Zoology, Cambridge University, United Kingdom; and Annica Dahlstrom, Professor of Department of Medical Biochemistry and Cell Biology, Goteborg University, Sweden.

In a series of special lectures and seminars a wide range of topics will be discussed including the limitations of evolutionary science and its application to various fields such as medicine, agriculture and economic development. Additionally, the concept of evolution will be presented in relation to the modern world and education. This will be achieved by exploring the social and philosophical implications of evolutionary thought, including the relationship between faith, science and society.

Along with the conference, the *Darwin Now* Exhibition will also be held.

This inspiring exhibition has toured several countries throughout the year 2009. It will showcase the steps Darwin took towards the foundation of the revolutionary theory in addition to Darwin’s concepts in relation to modern science.

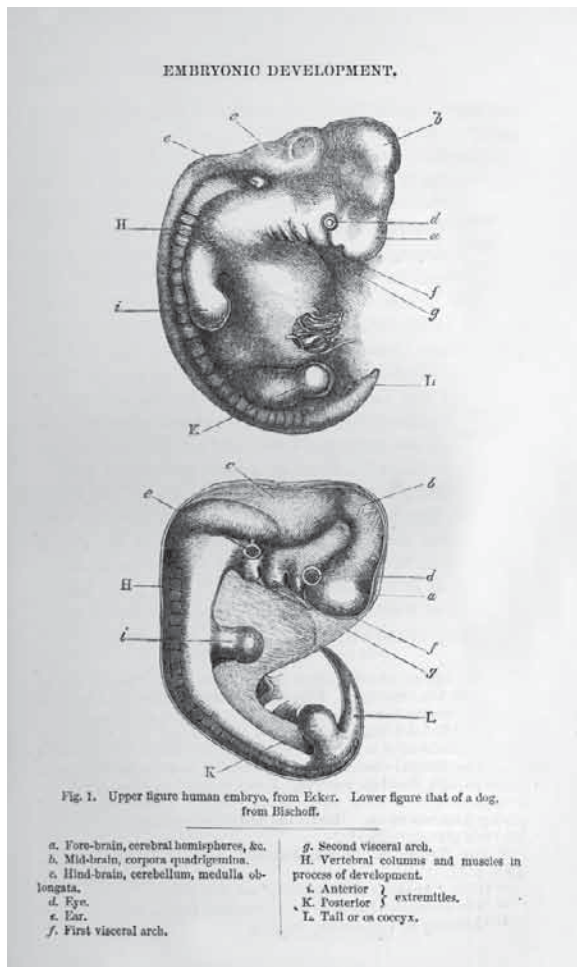


Conflicting Views

Prior to the proclamation of the evolutionary theory, many biologists could not find evidence to Darwin’s ideas. Other criticisms involved missing explanation of the origin of variations and how they were hereditarily passed on. Later in the 20th century answers to these questions came with the emergence of modern genetics.

Besides the scientific doubts, there were also opposing religious views. Science and religion have long been in conflict. Darwin’s theory was attacked by the Church for his concept of the evolution of living things tends to refer to humans

as well as animals, an implication that disagrees with the religious belief that the world was created by God. In fact, in 1871, Darwin published his book *The Descent of Man and Selection in Relation to Sex* in which he applied the theory of evolution to human beings, he declared that people might have possibly evolved from apes. Highlighting other aspects corresponding to his theory, Darwin also published *The Variation of Animals and Plants under Domestication* and *The Expression of Emotion in Man and Animals*.



Sketch from *The Descent of Man and Selection in Relation to Sex* comparing human and animal embryos, www.darwin-online.org

Regardless of the conflicting ideas, Darwin was intellectually recognized and honored. In 1839, he was designated to the Royal Society and later to

the French Academy of Sciences. Darwin passed away in 1882, but his theory remains to be an important concept scientists commonly refer to.

Current Modifications

Contemporary scientists view Darwin's theory through three interrelated factors, variation, heredity and the struggle for existence. Although Darwin did not explain the factor of variation, it is present in all forms of life. Heredity is the force that passes on similar traits from one generation to another. The struggle for existence verifies the variations, thus changing species through a selective reproductive rate. A modified view of the evolutionary theory due to natural selection may be explained through genetics in which hereditary information carried by genes, which express different characteristics for a reproduced organism are duplicated and passed on to generations.

Today, Darwin's findings are recalled in several branches involving biology, genetics and DNA interpretation, finding vaccines for viruses and fossil analysis. Current findings prove that the DNA can reveal surprising interactions between unlike groups. Also, through fossil records it has been discovered that the evolution rate of occurrence is changeable and not necessarily gradual. Other studies on wild life populations have shown how new species are formed. Generally, Darwin's thoughts along with current technological advances have brought great successes to science and humanity. If Darwin's reaction to the advances applied to his theory was to be predicted, perhaps we may refer to his question "*The fact of evolution is the backbone of biology, and biology is thus in the peculiar position of being a science founded on an improved theory, is it then a science or faith?*"

Words To Remember

“Architecture is a continuing dialogue between generations which creates an environment across time.”

Vincent Scully

“I call architecture ‘frozen music’.”

Goethe

“In architecture the pride of man, his triumph over gravitation, his will to power, assume a visible form. Architecture is a sort of oratory of power by means of forms.”

Friedrich Nietzsche

“We shape our buildings; thereafter they shape us.”

Winston Churchill

“Life is rich, always changing, always challenging, and we architects have the task of transmitting into wood, concrete, glass and steel, of transforming human aspirations into habitable and meaningful space.”

Arthur Erickson

“Good architecture is like a piece of beautifully composed music crystallized in space that elevates our spirits beyond the limitation of time.”

Tao Ha

“Architecture is the will of an epoch translated into space.”

Mies van der Rohe

“Society needs a good image of itself. That is the job of the architect.”

Walter Gropius

“Architect. One who drafts a plan of your house, and plans a draft of your money.”

Ambrose Bierce

“Always design a thing by considering it in its next larger context - a chair in a room, a room in a house, a house in an environment, an environment in a city plan.”

Eero Saarinen

“Believe me, that was a happy age, before the days of architects, before the days of builders.”

Lucius Annaeus Seneca

“Ah, to build, to build! That is the noblest of all the arts.”

Henry Wadsworth Longfellow

“Architecture is the art of how to waste space.”

Philip Johnson

Bibliotheca Alexandrina Calendar of Events

Selected Events in October - November 2009

1 October	2-8 October	13 October
<p>Concert – Registration BA Orchestra and El Masreyeen Group Location: BACC–Great Hall Time: 20:00 Contact Person: Reem.Kassem@bibalex.org</p>	<p>Conference – Registration 17th International Conference of Soil Mechanics and Geotechnical Engineering Location: BACC Contact person: Hanan. Abdelrazek@bibalex.org</p>	<p>Exhibition – Open to public The 13th International Convention on Higher Education and Training Location: East Exhibition Hall – BACC Contact Person: Hanan. Abdelrazek@bibalex.org</p>
13 October	15 October–5 November	16 October
<p>Ceremony – Open to Public Arab Astronomers Location: Lectures Hall – BACC Contact Person: Reda.Kandil@bibalex.org</p>	<p>Exhibition – Open to Public Marconi Exhibition – Celebrating the end of Egypt Italy Science Year Location: Lectures Hall – BACC Contact Person: Islam. Elhamshary@bibalex.org</p>	<p>Festival – Open to Public Art Bazar 2009 Location: Small Theatre – BACC Contact Person: Noha. Ragheb@bibalex.org</p>
20-22 October	28 October	1-22 November
<p>Conference – Registration The Third Arab International Conference in Physics and Material Sciences Location: BACC Contact Person: Salah.Soliman@bibalex.org</p>	<p>Play Reading – Registration The Ghosts by Eduardo di Filippo Location: Arts & Multimedia Library Contact Person: infobib@bibalex.org</p>	<p>Educational Course – Registration Hellenistic Artistic Schools Location: BACC – Lectures Hall Contact Person: Mona. Abdelshafy@bibalex.org</p>
5 November	14- 16 November	21 November
<p>Lecture – Open to Public Spiritual Values and Development Location: BACC – Lectures Hall Contact Person: Mohsen. Youssef@bibalex.org</p>	<p>Conference – Registration Darwin’s Living Legacy Location: Great Hall- BACC Contact Person: Yasmin. Maamoun@bibalex.org</p>	<p>Lecture – Open to Public The Arabisation of Sciences Location: Lectures Hall - BACC Contact Person: Shaymaa. Elsherif@bibalex.org</p>

For more details, visit: <http://www.bibalex.org/English/Calendar/ShowEvents.aspx?today=1>

11/08/2019 10:00:00 AM