

Speeches delivered at the opening ceremony of the 70th edition of the symposium of the International Commission for the Study and Improvement of Mathematics Teaching: "Mathematics and Living Together, Social Process and Didactic Principle", Mostaganem, Algeria.

Speech by Mr Tahar Hajjar
Algerian Minister for Higher Education and Scientific Research

I find myself tremendously glad while my country Algeria is living the fragrance of the fifty-sixth (56) anniversary of its independence. Allow me, please, on this happiest occasion, to extend the highest expressions of congratulations to you, hoping more and more success and victory for our country, Algeria.

I would like to express to you my good fortune of being in the city of Mostaganem, "the pearl of the Arab Maghreb" that has achieved excellent results in scientific, art and thought fields throughout History. It has then produced scholars, artistic handicraftsmen, thinkers, historians, poets and men of letters. It is a city, which has neither slackened nor worked loose. It is an everlasting honorable city for science, and a given quality and a proud one in the middle of research. And here, today, it peacefully celebrates the efficiency of the second manifestation of the International Board for Studying and Improving Mathematics Teaching (CIEAEM) for its seventieth session under the motto "Mathematics and the Living Together" which I share with you the effectiveness of its inauguration and in which the Intermediate Institution for the Sustainable Development "Djanatu al-Arif" has taken part in its organization under the auspices of its founding President, Sheikh Khaled Bentounes and the Ibn Badis University in Mostaganem and under as well the gracious patronage of his Excellency, the President of the Republic, Mister Abdelaziz Bouteflika.

Luckily, this meeting happens to be held just two months after the memoriam of World Living Together Peacefully Day which Algeria hastened to celebrate on last May 16th, endeavouring for building tightly new international relations characterized by mutual understanding, serenity and God-inspired peace of mind.

I should like, on this occasion, to welcome Algeria's guests, professors and research workers who came from twenty different countries and I hope they will plentifully enjoy a pleasant stay in our country.

I also greet the guests and participants composing this audience and wish them all success in their works bringing out results strengthening the position of mathematics in attaining "living well together", because this science imposes itself in every field of scientific knowledge.

It has begun with man and developed with him throughout ages because of its strong link with walks of life since mathematics have interfere in all sciences and that which are connected to them, such as physics, chemistry, biology medicine, computer, technology, astronomy, economics, human sciences, education, jurisprudence, and so on until it has recently reached Human body and cancer mathematical modelling. Since a very long time ago Mathematics have been creating the foremost concern of

man to strive for building up a civilization that attains to him more and more progress, development, holding away over his environment, deriving advantage of the resources and necessary energies from both of the earth outwardness and inwardness so that he can maintain his life sustainably. We can see today that mathematics have penetrated a field which is concerned about living together peacefully with the various peoples in order that they can lower their bucket in the other sciences to participate in fixing firmly and consolidate the concept of living together peacefully within mankind throughout the attainment of the desired and pursued development for humanity as a whole so that happiness may cover and spread out all over the world.

Such a noble initiative, that came as an irrevocable essential after World War II which wreaked havoc and shrank relations between states in Europe, deserves undoubtedly praise and respect because it carries significant letters in founding a worldly society heading for living together in an atmosphere of freedom, justice, equality, fruitful solidarity, without distinction and control. In fact, contributing to works and taking part in them in scientific laboratories between researchers from different nationalities constitutes a support to this noble endeavour, because policies and targets drawn for it are sufficient from the numerous and different donations with which each individual or group takes part to the advantage of human kind, on the basis that the matter is one and it is the participation in attaining progress, development and noble living without neither oppression nor constraint on all the inhabitants of the earth. In this case, security and stability can spread out, which many peoples and minorities miss them.

History makes us know that our country amply takes part in developing mathematics during the Islamic period during which this science witnessed a specific pattern. Algerian cities, namely and mainly Tiaret, Bejaya, Tlemcen, Constantine, Annaba (former Bône), Oran, were scientific lighthouses and took part in the scientific dynamics that the Arab Eastern countries took up at the splendour Islam time. Its production affected for many centuries the Arab Maghreb and Europe. As everyone knows, Béjaïa was an ideal and a goal sought after for the aspirants for science, fine arts and especially mathematics, such as the Italian, Leonardo De Pise who studied this subject and discovered Arabic numerals and arithmetic for the first time in this place and conveyed them to Europe in the twelfth century. Still in this domain, Algerian names came out, such as Ibn Marzuq al-hafid (1364), Muhammad Ibn Ibrâhîm al-abîly (1456), Abu Abd Allah al-Sharîf, known under the name al Ghurbî (14th century), Abu al-Abbâs Ahmad b. Hasan b. Ali b. Maymûn ben Qunfud al-Qusantînî, well-known as Ibn l-Khatîb or Ibn Qunfud (1406), Muhammad b. Ahmad b. Abî Yahyâ al-Tilimsânî, well-known as al-Habâk and other scholars that many sources mention their major works about algebra, arithmetic, astronomy that are still studied in our colleges and universities. In the world today, all countries and particularly the developed ones, rush on specialists in mathematics who have now become a scarce currency. How in urgent need of developing this science, the methods of both learning it and teaching it, inspiring our students to it, taking care of it and regarding it as a fundamental science to be taken strongly into account our

country is!!! How in urgent need of seeking information about the newly created ways and means of training to improve the returns and to encourage in great number our students to devote their studies to it our country is!!! That is what pushed the higher educational section and scientific research to open various special courses for the new high school graduates in mathematics to persuade them to head for this option.

We exert ourselves to renew the guidance methods in order to awaken a desire in the students for taking up mathematics studies and attending to them. In order to attain to this strategic target we have endeavoured to give abundantly of suitable training for training providers at universities and colleges for professors that provide with a good training in both of the theoretical and practical areas while using the newest pedagogical ways so that they could fulfill their missions in a better way.

Some graduates of universities and colleges carry on their higher studies taking up master's degree, PhD and partaking of extensive research in this domain. The higher educational section will set up right from the start of the coming year a mathematic college in Bejaya wilaya as a token of gratitude and in acknowledgement of the service that it brought for the development of mathematics in the twelfth and the thirteenth centuries.

The higher educational section and the scientific research give all their attention to a considerable number of professors and researchers of a significant rank owing to the researches they have produced and due to their managing of the numerous researches departments in the country and in foreign universities and research centres, too.

For promoting mathematics and advancing them we are interconnected with the higher educational section to examine a possibility of improving the returns of work in accordance with this direction and trend, and we manage to meet the objectives, for instance, improving the ways of teaching mathematics and developing the partnership between the higher educational section and the scientific research one and the Department of Education in the field of research in mathematics so as to give it the sublime rank it deserves. Here, we should remind that the Ministry of Education organizes a yearly competition between the students in their last year, in mathematics, at high school; we also have set up higher level rewards for some years called after the name Maurice Audin.

The latter was a professor and a researcher in mathematics; he was famous for his support and help to the Algerian situation at that time against the colonizer. That is because he believed in its justice, and refused any kind of tyranny, favouritism and despotism. Audin's position against the policy of his country is considered as a lively model for the educated as a whole and for the professor and the researcher in mathematics with respect to the unbiased matters and the defence of the oppressed deprived peoples, as one can see nowadays harsh oppression on peoples, besides sufferings and grievance that the minorities, amongst them Muslims in some countries in the world, are complaining about. I renew to you my hope to stay nicely in our country, starting from this city, Mostaganem, beautiful by its shores, beaches and gardens and its nice weather and the friendly reception of its inhabitants. I hope that this significant meeting will be crowned by results that can be one more brick in

the common collective work aiming at achieving a great conscience with the necessity of doing what can help us take advantage that which gather mankind and provide it with a living together peacefully and banish and reject all that which leads to separation and division and kindles chauvinism and arrogance.

I thank you so much for your nice listening, peace of God, His mercy and blessings be with you.

Speech by Sheikh Khaled Bentounes
Spiritual leader of the Alawî Sufi Way
and honoray President of Djanatu al Arif Foudation

We are very happy to welcome you at the opening of this unique symposium. This meeting is an ideal opportunity to create links between the different countries of the world, to unite our efforts, to exchange, and share knowledge and experiences to promote the society of « Living together and doing together » that we need so much today.

It is organized under the high patronage of His Excellency the President of the Algerian Republic, Mr Abdelaziz Bouteflika. We have the honour to have with us the presence of Professor Tahar Hadjar, Minister of Higher Education and Scientific Research for its opening.

We thank Mr Gilles Aldon, President of the International Commission for the Study and Teaching of Mathematics and all its members for having responded favourably to our invitation.

This symposium, whose theme is "Mathematics and Living Together, Social Process & Didactic Principle" invites us to ask ourselves the question: what is the relationship between mathematics and Living Together? The great French mathematician of the 19th century, Mr Henri Poincaré, said, "to do mathematics is to give the same name to two different things".

How can we not ask ourselves this question when mathematics today occupies and organizes our daily lives. They are so omnipresent when each of us uses mobile phones, sends SMS, consults tablet or computer, uses car's GPS to recognize itineraries, and so on, but also in planes, boats, finance, international trade, meteorology, medicine, bar codes, factories, cities, homes, social networks and more. Mathematics are so present that they can no longer be seen. Between Mathematics and men there is a long history, they begin with numbering of the first steps of the homosapiens, continue through the multiple Chinese, Indian, Mesopotamian, Egyptian, Greek, Roman, Arab-Muslim, Amerindian and Western civilizations that each made their contribution so that today all humanity can benefit from the tremendous progress of the technology to exponential growth. Mathematics would thus only be a science made to describe, understand and act on the world, a sort of horizontal line that starts from its origin towards the infinite or the indefinite. How to conciliate a science of the abstract, the most demanding, the most rational, whose foundations are argumentation, the use of reasoning, the sharing of evidence and peer validation with Living Together in Peace while making in the sense described by Mr Poincaré, a mathematical equation ? That is the challenge of this meeting.

Living together is a utopia, a bet on the best of human genius, it is an ethics of life, a vision that unites, that reconciles, a pedagogy of otherness. Since things are contained

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Aren't art, aesthetics, music, poetry, architecture, universal language, knowledge sharing all related to mathematics? Do All these connections not invite us to explore during this meeting a pedagogy of Living together that by its accuracy, precision, given argument and conviction leads to adherence. Find the inspired intuition to validate the model of Living together and Doing together because as René Descartes put it, " Les règles d'or pour la direction de l'esprit : There is science only with intuition and deduction ». This opens up a new horizon for us: building the future one with the other one and not one against the other one.

Thanks to all those who have contributed to to share this moment of exchange and conviviality.

Speech of Mr Abdenour Rabhi Wali of Mostaganem

In the name of God, the Most Gracious, the Most Merciful.

Praise be to God, [God is] enough, and peace be upon the chosen Prophet

The Right Honorable Minister of Higher Education and Scientific Research, your thoughtfulness in choosing the city of Mostaganem as a place for holding your scientific and intellectual meeting this season, “Mathematics and Living Together,” is a source of pride and fulfillment for Algeria in general and for Mostaganem in particular. This [worthy] location, due to its rich history, contains cultural and scientific gems that make it one of the most important places for finesse, inspiration and creativity across time.

In response to this choice, on behalf of myself and all the inhabitants of Mostaganem, I express my gratitude and appreciation for all those who worked to organize this important meeting, which was further enhanced by the fact that His Excellency the President of the Republic, Mr. Abdelaziz Bouteflika, gave it his generous patronage and privileged it with special support and serious care.

I also mean, in this context, Sheikh Khaled Bentounes, who lead this valuable initiative and proposed the idea for the subject of this meeting, in addition to the call for Living Together in Peace, for which Mostaganem and, of course, Algeria had the honor of nurturing the first seed. Great thanks be to all the distinguished scientists and esteemed professors, who came from various friendly and sister countries to offer the wisdom of their ideas, accumulated knowledge and skills. These offerings will undoubtedly allow the daughters and sons of Mostaganem, as well as everyone [else] who attends this meeting, to enjoy your creative works, talents and genius.

Noble Ladies and Professors,

Guests of Algeria and Mostaganem, Welcome. May you have a pleasant stay. Without doubt, you are our esteemed guests for the duration of your visit to Algeria. We are thrilled to host you in this land of reconciliation between human cultures, the land of dialogue, exchange and harmony.

Guests of Algeria, once again we wish you a pleasant stay among us and success for the proceedings of this conference.

Peace, mercy and blessings be upon you.