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Revive the heyday of Islamic Science

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"SCIENCE has no religious connotation. What is oxygen to a Muslim is also oxygen to a Hindu, Buddhist, Christian, Taoist and even pagan.

"Islamic science is not a different science either. It is very much the modern science which we learn and use today, the science which we think originated from the Europeans.

"In fact, much of today's science originates from Muslims themselves. Arabic words like algebra and algorithm, for example, indicate their immense contribution to the scientific disciplines of mathematics and computer science."

This was said by Prime Minister Datuk Seri Dr Mahathir Mohamad, when launching the homepage of the Langkawi International Islamic Science and Technology Exhibition and Conference (Listec) '98.

We often hear that even though Islam is a 1,400-year-old religion, Muslims have not been able to cope with the intricacies and rapidity of scientific progress and development of the last few centuries. This is somewhat baffling.

Science and technology once flourished in the Muslim world. Muslims took up the Greek and Persian sciences so naturally due to the fact that the Quran and sunnah of the Prophet Muhammad have always promoted the seeking of the truth, which is what science is all about.

Moreover, the Quran places great emphasis on individual as well as collective search and research, and lends considerable importance to scientists. They are invited to conduct research and discover the secrets embedded within all the creations of Allah.

Prophet Muhammad has also been reported to have said: "Whoever leaves his home to go in search of knowledge follows the way of Allah," and "The study of science has the value of fasting, the teaching of science, the value of prayer".

Science and technology which flourished during the great Islamic Civilisation was about the premises and objectives of scientific inquiry and application of scientific inventions and innovations in the service of Allah.

The relationship between Islam and science is actually defined by what the Quran says about the Creator, Man and the universe.

The supreme Creator has shaped the universe out of nothingness. But this effort is not without purpose. It is up to Man to seek out the purpose behind the creations. Nothing is superfluous, random or erratic in its behaviour. Everything is governed by a profound and perfect balance or equilibrium.

In physics, for example, Isaac Newton's third law says that for every action, there must be a reaction. Action means performance of duty, which must yield results or reactions. The Quranic values attached to this "scientific" phenomenon is that if an action is positive and good, the result will also be that, and likewise the reverse.

The linkage of the Creator, Man and universe has profoundly liberating implications. As the keeper of this world, Man has the responsibility to look after the welfare of fellow beings and non-beings. This can only be accomplished by understanding the secrets of the world, referred to in the Quran as the truth. Nothing is barred except that which does not benefit the creations.

It is often said that the universe is a Muslim science park. Thus,

although the space age came into being only this century, a person looking into the Quran over 1,400 years ago would have discovered that there were possibilities of life-forms in space. The relevant verse states: "And among the signs is the creation of the heavens and the earth and the living creatures that He has scattered through them."

Probably this verse led to scientists scouring to seek the existence of other life-forms in the universe, as reported by the findings of possible traces of ancient Martian life in the meteorite ALH 84001, discovered in the Antarctic in 1996.

Thus, this Quranic account challenges Muslims to participate in the realm of space science.

On a similar note, the stages of the development of the human embryo were not "scientifically" described until this century. However, a discerning reader of the Quran would have realised 14 centuries ago that the verse which states: "He makes you in the wombs of your mothers, in stages, one after another, in three veils of darkness," might be referring to the anterior abdominal and uterine walls, and the placental membrane.

In addition, the Quran describes human conception as "then we placed him as a drop in a place of rest." The "drop" would be the zygote resulting from the merger of the sperm and the egg, which divides to form a blastocyst which is implemented in the uterus - "the place of rest".

Thus, hard as it may be to imagine today, from the eighth to the 12th century, Muslims were the world leaders in science and technology. Scholars and researchers were respected and appreciated. Their works in mathematics, astronomy, medicine, chemistry, meteorology and optics would influence the teaching and learning of these subjects for centuries afterwards.

But most important of all, Muslim scientists taught the world the scientific method of discovery. This was a new kind of scientific inquiry; from one based on conjuncture of speculation and deduction primarily as propagated by the Greeks, to one supported by rigid investigative tools and procedures. These innovations became the pillars of the next wave of scientific domination, now led by the West.

Perhaps the decline of the Muslim empire in Europe was triggered by a marked deterioration in the passion for the quest of knowledge among the Muslims of the latter days of the Islamic civilisation.

Islamic science and technology finally stagnated and was transformed into a state of recluse. The impact of this debacle was so great that whatever contributions Muslims had made toward modern science were dismissed as irrelevant. Western textbooks on the history of science made feeble and uninspiring reference to it.

Part of the blame, lies with Muslims. While the decline of science and technology among Muslims continued through to the present time, there was, however, revivalism of Islam in the 18th century. This event proved to be an enigma to science and technology within the Islamic world.

The Muslim jurists who spearheaded it put out a decree banning the adoption of studies other than those specifically related to religion, including the prevalent scientific and technological know-how. Thus, instead of moving with the wave of progress and development of science and technology, Muslims regressed. They entered a self-imposed exile.

The time has come for Muslims to break this self-exile. A repeat performance of the Islamic civilisation heyday is not impossible. A checklist of the prerequisites for a comeback demonstrates that the Muslim world is not lacking of resources - whether physical, human or intellectual.

From the cloning of sheep to chips tagged to protein or DNA, from speech recognition technology to personal communications satellite systems, it is

clear that the age of scientific discovery is here to stay.

Nevertheless, discovery per se cannot sustain human survival. New discoveries impart new knowledge. And this new knowledge has to be put to work in new technologies. These are then served to fulfil the ever-increasing world's appetite for comfort and convenience. This sequence of events marks the prevalent vital links involving the scientist, technologist and entrepreneur.

But seldom has the trio been brought together at a single gathering. Thus, Listec '98, themed "Towards Global Networking and Partnerships" aims to do exactly this.