

## Trivia

This past week during Professor Alahmad's "Oil, Development and Power" seminar, I was afforded the opportunity to witness one of the more fun exchanges within our studies: that of the realization of a piece of profound trivial knowledge. In that particular instance, it was the acknowledgement that the oil imports for the United States come essentially from only Venezuela and Canada and not, contrary to popular belief, from the Middle East. While common knowledge to many within our discipline, facts like these do have a considerable impact on the understanding of those who are not students of Middle Eastern Studies, and thus are entertaining for us to throw into conversations outside the Kevorkian Center.

Having this in mind when reading through the news today, imagine my surprise when I came upon a review of a new edited work and a corresponding exhibition at the London Science Museum entitled 1001 Inventions that focuses on many of the forgotten technological achievements of the Middle East that have shaped the modern world. The book's editor, Professor Salim al-Hassani (University of Manchester) was asked to give his top ten of the advancements discussed in the book and some were pretty surprising for me. They are listed in the article one by one as follows:

### 1. Surgery

Let's start with the nod to Mr. Foucault. The book draws attention to the work of the doctor al-Zahrawi who published a massive illustrated medical encyclopedia that included a number of procedures he himself invented, such as a primitive caesarean operation. And this was in 1000 C.E. Also credited to the doctor was the first pair of forceps and dissolvable sutures. According to the review, his work became the reference for European medicine through 1500 C.E.

### 2. Coffee

Ah yes, the life blood of graduate education. This drink, a multibillion dollar per year industry today, owes its origins to 9th century Yemen (although I know at least one Classical historian and one African Studies historian who believe it was grown in Ethiopia even before then). Regardless, coffee seemed to become popular in the region long before it was a common product in Europe.

### 3. Flying Machine

I'm sure many of you have read about Leonardo da Vinci sketching plans for a flying machine long before the Wilbur and Orville Wright took their own machine to the sky in North Carolina. But apparently, the idea, and attempts to make it a reality are much older than that. Abbas ibn Firnas is believed to be the first to attempt the endeavor, testing a flying machine during the 9th century near Cordoba, Spain. While Professor al-Hassani concedes that he ended up falling and partially breaking his back, the effort was still bold and inventive.

### 4. The University

More commonly known is the fact that degree granting university's had their origins in the Middle East. The book presents the story of the late 9th century princess Fatima al-Firhi who founded an institution in Fez, Morocco. The building operates still to this day and the Professor hopes that its existence serves as a reminder that learning occupies a major place in the Islamic tradition.

### 5. Algebra

Always what so many people cite as the major contribution to the world's knowledge of quantitative reasoning and yet only understood in a limited way, 1001 Inventions describes the publication of the treatise "Kitab al-Jabr Wa l-Mugabala" ("The Book of Reasoning and Balancing") by a 9th century Persian man. According to the review, the new algebraic order "was a unifying system for rational numbers, irrational numbers and geometrical magnitudes."

### 6. Optics

In the book, a history is told of a man named Ibn al-Haitham who, in the year 1000, discovered that people are able to see objects by capturing the light reflected off of them with their eyes. Additionally, al-Hassani explains, he uncovered the camera obscura phenomenon, or how human vision corrects an image reflected upside-down so that it is processed right side-up.

### 7. Music

Instruments such as the lute and the rahab we introduced to Europe in the highest esteem, as the music of medieval Baghdad set the standard throughout the world. Also, so we're told from the review, the modern musical scales are actually based on the Arabic alphabet.

### 8. The Toothbrush

Muslims will always note the emphasis Islam places on purity and cleanliness, both spiritually and physically. So then, is it any wonder that 1001 Inventions draws attention to the fact that the modern toothbrush may have actually been an invention of the Prophet himself? At the beginning of the 7th century, the Prophet is said to have cleaned his teeth with a small branch from the Meswak tree.

Others listed by Professor al-Hassani include the crank, a phenomenal mechanical feat in its own right, and the hospital (a nod to Foucault once more). From this short list one can see the wealth of knowledge and influence that emerged from the Middle East over the centuries and has shaped our world in the 21st century. But of course, none of us really doubt that, do we? As I said before, the fun part is dropping these neat little bombshells on those who are not students of the discipline in this country and therefore have no idea that their ideas of mathematics and medicine, or Starbucks and Colgate, actually have their origins in a place far outside the western world...in a place that is, unfortunately, not often regarded for its positive influence on humanity.