ENG 366 - - Assignment 2

Due date; March 2.

**How Islamic inventors changed the world**

From coffee to cheques and the three-course meal, the Muslim world has given us many innovations that we take for granted in daily life. As a new exhibition opens, Paul Vallely nominates 20 of the most influential- and identifies the men of genius behind them

**1** The story goes that an Arab named Khalid was tending his goats in the Kaffa region of southern Ethiopia, when he noticed his animals became livelier after eating a certain berry. He boiled the berries to make the first coffee. Certainly the first record of the drink is of beans exported from Ethiopia to Yemen where Sufis drank it to stay awake all night to pray on special occasions. By the late 15th century it had arrived in Mecca and Turkey from where it made its way to Venice in 1645. It was brought to England in 1650 by a Turk named Pasqua Rosee who opened the first coffee house in Lombard Street in the City of London. The Arabic qahwa became the Turkish kahve then the Italian caffé and then English coffee.

**2** The ancient Greeks thought our eyes emitted rays, like a laser, which enabled us to see. The first person to realise that light enters the eye, rather than leaving it, was the 10th-century Muslim mathematician, astronomer and physicist Ibn al-Haitham. He invented the first pin-hole camera after noticing the way light came through a hole in window shutters. The smaller the hole, the better the picture, he worked out, and set up the first Camera Obscura (from the Arab word qamara for a dark or private room). He is also credited with being the first man to shift physics from a philosophical activity to an experimental one.

**5** Washing and bathing are religious requirements for Muslims, which is perhaps why they perfected the recipe for soap which we still use today. The ancient Egyptians had soap of a kind, as did the Romans who used it more as a pomade. But it was the Arabs who combined vegetable oils with sodium hydroxide and aromatics such as thyme oil. One of the Crusaders' most striking characteristics, to Arab nostrils, was that they did not wash. Shampoo was introduced to England by a Muslim who opened Mahomed's Indian Vapour Baths on Brighton seafront in 1759 and was appointed Shampooing Surgeon to Kings George IV and William IV.

**6** Distillation, the means of separating liquids through differences in their boiling points, was invented around the year 800 by Islam's foremost scientist, Jabir ibn Hayyan, who transformed alchemy into chemistry, inventing many of the basic processes and apparatus still in use today - liquefaction, crystallisation, distillation, purification, oxidisation, evaporation and filtration. As well as discovering sulphuric and nitric acid, he invented the alembic still, giving the world intense rosewater and other perfumes and alcoholic spirits (although drinking them is haram, or forbidden, in Islam). Ibn Hayyan emphasised systematic experimentation and was the founder of modern chemistry.

**17** The modern cheque comes from the Arabic saqq, a written vow to pay for goods when they were delivered, to avoid money having to be transported across dangerous terrain. In the 9th century, a Muslim businessman could cash a cheque in China drawn on his bank in Baghdad.

*"1001 Inventions: Discover the Muslim Heritage in Our World" is a new exhibition which began a nationwide tour this week. It is currently at the Science Museum in Manchester. For more information, go to* [*www.1001inventions.com*](http://www.1001inventions.com)*.*

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