

Action sheet A Part 1

"Female" or "male" – can this be seen in the object?

DO YOU ASSOCIATE THESE OBJECTS WITH MEN OR WITH WOMEN?

Take a close look at the objects. Some show figurative representations, others only contain ornaments. Which ones would you attribute to men and which to women?



- 1** Object **Statue**
 Inventory no. I. 77/62
 Period 6th–7th century AH 12th–13th century AD
 Place Iran
 Material Quartz frit with turquoise glaze
 Size 31.5 cm tall, 8.3 cm wide, 17 cm deep

- 2** Object **Aleppo Room, detail**
 Inventory no. I. 2862
 Period 1012 AH/1603 AD
 Place Aleppo, Syria
 Material Wood, painted and gilded
 Size 2.6 m tall, 35 m long



Explain your decision

Action sheet A Part 2

"Female" or "male" – can this be seen in the object?

3 Object **Decorative ring**
Inventory no. I.7324
Period End of 10th century AH/late
16th century AD
Place Istanbul, Turkey
Material Jade, gold, rubies
Size Diameter 3.8 cm, 2 cm tall



Explain your decision

4 Object **Bowl**
Inventory no. I. 582
Period 4th–5th century AH/ 10th–
11th century AD
Place Iran
Material Silver
Size Diameter 13 cm, 3.8 cm tall



Explain your decision

Action sheet A Part 3

"Female" or "male" – can this be seen in the object?

5 Object **Bowl**
Inventory no. I. 11/62
Period 3rd - 4th century AH/
9th - 10th century AD
Place Nishapur, Iran
Material clay, painted and glazed
Size Diameter 22 cm, 6.3 cm tall



Explain your decision

6 Object **Astrolabe**
Inventory no. I. 6919
Period 2nd half of 11th century – early
12th century AH
2. half of 17th century AD
Place Iran
Material Cast copper alloy
Size 36 cm tall, 26.3 cm wide



Explain your decision

Action sheet A Part 4

"Female" or "male" – can this be seen in the object?

1. Camel with sedan chair

The turquoise object shows a camel carrying a sedan chair. At the time of its creation, animal and human figures were very popular. As a result of stereotypical depictions, such as in pop culture, the image of a sedan chair has been interpreted mainly as a means to transport women. The statue does in fact resemble travel and ceremonial sedan chairs. Those were used by all genders.

2. Medical scene

This detail from the Aleppo Room shows a medical scene in which one person puts a leech on another person's arm. This is one of many figurative depictions on the wall cladding. While one tends to think of doctors as men – especially many centuries ago – this one seems to represent a woman. The clothing and head covering indicate a female doctor.

3. Decorative ring

This jade ring with ruby edging and gold decoration comes from the Ottoman Empire, probably from Istanbul. The ring is heavily decorated and bears large gemstones. Current jewellery fashion could be misleading, however. Although many people would attribute this ring to women, it was actually a magnificent ornament for men.

4. Silver bowl with musician

The small silver bowl has been decorated with five medallions. The large one in the middle shows a person playing a lute. It is unclear whether this is a man or a woman. On the whole, many depictions of musicians are ambiguous. Maybe the division into genders was not so important here?

5. Bowl with image of rider

The small clay bowl was decorated with different motifs. The main figure is a warrior with a horse. Because of the beard, it can be assumed that this is a man. But various stories from the region also talk about female warriors: the Shahnameh (Persian epic), for example, recounts the story of the woman Gordafarid, who goes into battle wearing a man's armour.

6. Astrolabe

Astrolabes are instruments that use the position of stars to calculate the time even at night, among many other things. In today's imagination, technical devices are often associated with nerds and tinkerers – in other words, men. But now as well as then, the situation was different: in addition to the many men, women also worked in this area, many with outstanding accomplishments. This exercise will continue with the astrolabes.

Action sheet B Part 1

Woman or man – who made it?

WHICH HAS A WOMAN BEHIND IT AND WHICH A MAN?

The eight people searched for are inventors. Their names were replaced with the word INVENTIVE.

1

Even as a young person, INVENTIVE already experimented with telephony. INVENTIVE later came up with the idea of a television while looking at a lamp through a spirally perforated panel. The image was created by many individual points. In 1884 AD, INVENTIVE received a patent for this innovation, although INVENTIVE never really seemed to try to implement it.

2

INVENTIVE came up with the idea of a coffee filter in 1908. After experimenting with blotting paper to eliminate coffee grounds in the finished coffee, INVENTIVE continued to develop the product and finally had it patented. The family company, in which the sons were also working, grew quickly. After World War I, additional buildings were acquired for the production. The company that INVENTIVE founded early last century with the invention of the coffee filter still exists today.

3

For a long time, it was difficult to preserve food. This was changed with the method of boiling something down. At the start of the 19th century AD, INVENTIVE first came up with preserving food in jars and then tin cans. INVENTIVE had previously worked at a pastry shop. The French Ministry of the Interior awarded a prize to this preservation method in 1810 AD. INVENTIVE publicised the method in a book. The cans for the preservation, which INVENTIVE started using in 1812 AD instead of glass containers, were made of tin plate.

4

The first ready-made food for babies was developed in 1865 AD. At first only ready-to-eat soups were sold in pharmacies, then ready-made food in powdered form followed. Soon the baby food was sold throughout Europe. Its success could also be attributed to the good reputation that INVENTIVE had established earlier. Nonetheless, the ready-made food couldn't be compared with that of today; the preparation took a lot of time.

Action sheet B Part 2

Woman or man – who made it?

5

INVENTIVE was born into a rich family in the 19th century AD. Because INVENTIVE was upset that servants broke many dishes while washing them, INVENTIVE developed the first mechanical dishwasher in 1886. After measuring the dishes, INVENTIVE first built a dishwasher for INVENTIVE's own household, then for friends. The invention was quickly promoted by word of mouth and was patented. Restaurants and hotels in particular were interested in the product. In 1893 AD, the invention received an award for the "best mechanical design, durability and functionality".

6

INVENTIVE actually operated a cattle farm and vineyard, but became known for the invention of the windshield wiper. After riding a tram in the winter of 1902, INVENTIVE sketched some initial ideas for a windshield wiper. A lever that could be operated from inside the vehicle was connected with a swing arm and a rubber lip. INVENTIVE had a patent for the invention by 1920. Windshield wipers have been part of standard car equipment since then.

7

During the Industrial Revolution, INVENTIVE and the watchmaker John Kay came up with the first spinning machine with an automatic yarn feed, the so-called "waterframe". Two years later, INVENTIVE was able to build a factory for the production of yarn with spinning machines. It was powered through water wheels. In addition to the factory, INVENTIVE also commissioned the construction of houses for the weavers, a school and a church.

8

INVENTIVE lived in the 19th century AD and enjoyed a scientific education as a youth. In addition to translations, INVENTIVE presented a written plan in 1843 AD to show how Bernoulli numbers could be figured out with a planned mechanical calculator. This algorithm is considered the first computer program in the world. For this invention, INVENTIVE can be called the first person to have written a computer program.

Info sheet

Astrolabes



Object **Astrolabe**
 Inventory no. I. 1611
 Period 5th–6th century AH/ 11th–12th century AD
 Place Iran
 Material Cast copper alloy
 Size 37 cm tall, 29 cm wide



Object **Astrolabe**
 Inventory no. I. 6919
 Period 2nd half of 11th century – early 12th century AH
 2. half of 17th century AD
 Place Iran
 Material Cast copper alloy
 Size 36 cm tall, 26.3 cm wide

ASTROLABES

Astrolabes are instruments that can be used to perform various calculations. They consist of several elements: A base plate, an insert disc, an open-work disc and a ruler. The disc shows a few fixed stars. If this is oriented towards the starry sky, a brief calculation makes it possible to tell the time at night, when sundials aren't working, for example. Many different things can be calculated or shown directly with astrolabes. For that reason, they are also referred to as analogue computers.

PRODUCTION

If you want to make an astrolabe, you must be knowledgeable in many areas. In addition to artistic skills, experience in metalworking is also required to make such an object. Knowledge of astronomy, geography and of course mathematics is also necessary. All in all, this means that the person who wants to make an astrolabe must be up to date with the latest scientific knowledge and know how it can be implemented artistically. If astrolabes are seen as analogue computers, one might also say that the manufacturers of these instruments were the computer scientists of their time.

Info sheet

Astrolabe maker

MUHAMMAD ZAMAN

An astrolabe from the 17th century AD at the Museum of Islamic Art was signed by its manufacturer. It was made by “Muhammad Zaman, the star scientist, the astrolabe maker from Mashhad”. He is known to have made other astrolabes and additional astronomical devices that are located in other parts of the world. This also includes a document with calculation tables for “the science of stars”. The term “science of stars” may be a little cumbersome. It refers to what was divided into astrology and astronomy in Europe starting with the modern age. Zaman was a scholar of this science of stars, which also meant that he had to master a great deal of mathematics and other disciplines. At the same time he had the skill to make artworks like the astrolabes.

MARIAM AL-ASTURLABI

For his astrolabes, Zaman relied on the knowledge of generations before him who had already made astronomical instruments. One of his predecessors was al-'Ijliyyah bint al-'Ijliyy al-Asturlabiyy, known as Mariam al-Asturlabi (Mariam, the astrolabe maker). She developed astrolabes in Aleppo in present-day Syria in the 10th century AD. Ibn al-Nadim mentions her in the same century in his book *Fihrist*, a catalogue of all the books known to him. He writes that she completed her apprenticeship under Nastulus. Nastulus was also a well-known maker of astrolabes and manufactured the first instrument we know of today, which is dated (315 AH/927–8 AD) and signed. In Aleppo, Mariam was supported by the local ruler Sayfal-Dawla, probably working at the citadel in Aleppo that is still known today.

Action sheet C

What does your dream job look like?

WHAT DO YOU WANT TO DO?

What are your strengths? How do you picture your professional future? Which profession would you like to learn? The same question always arises when school is finished: What should happen next? Which profession should it be?

Choosing a profession is about finding an area of activity that you're interested in, but also one with which you can earn a living. In the private sector, on average, women who have the same qualifications earn less than their male colleagues – regardless of whether they completed university studies or an apprenticeship. This is called the gender pay gap. Additionally, many jobs frequently chosen by women pay less and offer fewer opportunities to advance. There are no longer any formal restrictions on girls and boys in the work environment. Depending on their interests and skills, they can choose between all educations and jobs – and yet they do this very differently. Almost half of all young women choose office jobs, healthcare jobs, sales jobs or social jobs. This is very different for young men: many of them go into technical or industrial professions, but on the whole, the range of jobs they select is much larger than that of the girls. Take a look at the graphic!

WOMEN WITH HUMANS, MEN WITH MACHINES

Top three occupations that require training in Germany
(according to lately signed training contracts in 2016)

