Unit 202: Changing practices over time

Worksheet 2: Drainage and roadworks (Tutor)

Task 1: Answer the following questions on pre-1919 drainage systems.

1. What were some of the most common materials used for constructing pre-1919 sewers in the UK?

The most common materials used were brick, stone, cast iron and cement.

1. What were some of the factors that influenced the choice of materials for pre-1919 sewer construction?

Factors that influenced the choice of materials included availability, cost and durability. Availability of local materials played a significant role in determining the choice of construction materials, while cost and durability were also important considerations.

1. What were some of the commonly used hand tools for digging drainage channels and trenches?

Shovels, picks and spades were the most commonly used hand tools for digging drainage channels and trenches.

1. What were some of the levelling tools used in pre-1919 sewer construction in the UK?

Spirit levels, plumb bobs and measuring tapes were commonly used to ensure that drainage channels and trenches were level and had the correct slope.

1. What were some of the masonry tools used for constructing brick or stone sewers?

Trowels, hammers, chisels and brick saws were commonly used.

1. What were some of the techniques used to construct pre-1919 sewers in the UK?

Open trenches were dug and lined with stones or bricks, while closed trenches were dug and covered over with slabs or arches. Brick or stone sewers were constructed by laying individual bricks or stones in a trench using mortar, while cast iron pipes were used in areas where the ground was too hard or rocky to lay brick or stone sewers.

1. How were pre-1919 sewers in the UK constructed, and what tools and techniques were used?

Pre-1919 sewers in the UK were constructed primarily through manual labour, using tools such as shovels, picks, spades and wheelbarrows. Techniques such as open trenches or closed trenches were used, depending on the location, and materials such as brick, stone, cast iron and cement were used based on practical considerations such as availability, cost and durability.

1. What role did pre-1919 sewer systems play in improving public health and sanitation in the UK?

Pre-1919 sewer systems were essential for improving public health and sanitation by providing reliable drainage systems that helped prevent the spread of disease and contamination of water sources by taking effluent waste away from people’s homes rather than just having them thrown in the streets.

Task 2: Answer the following questions on pre-1919 road building.

1. What were some of the most common materials used in pre-1919 road construction in the UK?

Crushed stone or gravel, bricks, cobblestones, asphalt, concrete and wood were some of the most common materials used.

1. Why were bricks particularly common in London and other major cities?

Bricks were used in some urban areas to create a durable surface for roads and footways. Brick pavements were particularly common in London and other major cities because of their durability and aesthetic appeal.

1. What were tamping tools used for in road construction?

Tamping tools were used to compact the material used for the surface layer of the road or footway, such as gravel or crushed stone.

1. What were some of the traditional techniques still in use in pre-1919 road construction in the UK?

Some traditional techniques, such as laying stone pavements and building retaining walls, were still in use during pre-1919 road construction in the UK.

1. In the image below, what type of road surface is being shown? Explain why it was used as a road surface.

Cobblestones. They were commonly used as a road surface due to their durability and hard-wearing nature. They have a smooth surface and can withstand heavy traffic, drain water quickly and were readily available, making them cost-effective for road builders.

1. Why was road and footway construction a slow and labour-intensive process pre-1919 in the UK?

Road and footway construction was a slow and labour-intensive process pre-1919 in the UK because it relied heavily on manual labour and traditional techniques.

1. What factors influenced the choice of materials used in pre-1919 road construction in the UK?

The choice of materials used in pre-1919 road construction in the UK depended on a variety of factors, including local availability, cost and intended use.