2019 Higher Level Question 1

Name, describe and discuss two different Stone Age monuments found in Ireland. Refer in your answer to the form, function and construction techniques of each of the examples you have chosen. AND Briefly describe and discuss what you know about the communities that created these. Illustrate your answer.

Newgrange

Newgrange is situated north of the River Boyne in County Meath. It is the most famous passage mound of the Boyne Valley, spanning 85 meters in diameter and over 13 meters in height. The great mound is kidney-shaped and topped by a flat grass cairn. There are ninety-seven kerbstones surrounding the base. The two most important kerbstones are the entrance stone and Kerbstone 52 which are placed directly opposite each other. The other kerbstones are laid on their long edges with the ends touching. Although the stones differ in shape and size, they were deliberately placed by the tomb builders to ensure an even top line. To achieve this, some were raised on boulders and supported by small rocks underneath. To the right of the passage mouth or entrance, is an upright stone slab that acts as a door to the tomb.

Newgrange was built around 3200 BC, however, an excavation took place from 1967 to 1975 which modified its appearance. The white quartz wall displayed at the front of the mound was a 1960’s reconstruction, arranged from the instructions of Professor O’Kelly. Based on his research, Professor O’Kelly speculated that the mound had been built with a facing of white and grey stones.
when it was first constructed. It is believed that the quartz originated from Co. Wicklow, 80 km away and the greywacke granite from the Mourne Mountains, near Dundalk Bay which is 50 km away. The stones are estimated to have originally stood 3 meters above the kerbstones.

The mound contains one passage that is 24 meters in length, leading to a single chamber built in the shape of a cross. The passage opens in the direction of the mid-winter solstice and rises 2 meters between the entrance and the back of the chamber. Intricately dressed orthostats line the walls of the tunnel. There are 43 in total, 21 on the right and 22 on the left, and are all approximately 1.5 meters in height.

The roof is constructed with large flat stones which overlap. It is speculated that the builders used burnt soil and sea sand to fill the gaps between the stones in an attempt to keep the passage dry. The central chamber is roofed with a corbelled vault which rises and narrows gradually. To achieve this effect, each stone is placed on the neighbouring halves of the two adjoining stones below. The design may have been borrowed from woodworking techniques. The stones also have grooves carved in them to drain the water from the chamber. To this day, the corbelled roof has been successful in keeping the chamber dry.

The most famous feature of Newgrange is its roof box which is located above the entrance of the passageway. It is aligned so that during the winter solstice, the rays of the rising sun pass directly through this opening and illuminate the chamber for 17 minutes each year. This makes Newgrange the oldest astronomically aligned structure in the world, predating the first phase of Stonehenge by 1000 years and the Pyramids by c. 400 years. The precise location of the roof reveals the extensive knowledge these builders possessed about engineering and astronomy.
Knowth lies to the west of Newgrange, overlooking the River Boyne in County Meath. It is the oldest and largest mound from the stone age era in western Europe. The great mound has two passages with entrances on opposite sides, the western passage is 34 meters long and the eastern passage is 40 metres long, ending with a cruciform chamber. It has an impressive corbelled roof that is about six meters high and is surrounded by 18 satellite tombs. It is believed that the passages are aligned with the spring and autumn equinox, similar to the roof-box at Newgrange, and marks the beginning of a new season. The sun rises and enters the eastern chamber and illuminates the western chamber when setting.
Knowth covers an area of 1.5 acres and is surrounded by 127 kerbstones. Many of these are elaborately decorated with patterns that have been interpreted as relating to the phases of the moon and movements of the planets. White quartz stones are laid on the ground in front of the eastern entrance, creating a ceremonial or restricted area. The stones are believed to come from the Wicklow mountains. The western passage is of the undifferentiated type, meaning there is no separate chamber at the end but contains grave goods like stone balls, shell necklaces and pendants. The eastern passage is more elaborate. It has a cruciform chamber with a corbelled vault 7m tall at the centre which contains a beautifully decorated stone basin in the northern sound of the chamber. Remains of burials were discovered in the basin, proof that it was used to hold the cremated remains of the dead.
However, these sites were more than simply a location where burials took place. The astronomical alignment with the sun and the winter solstice seen in Newgrange suggest a more ritualistic function. It may have been a centre for ceremony and ritual of a Cult of the Dead where they celebrated the afterlife and the end of another year. The white quarts would have been visible from afar and the kerbstones may be evidence that processions took place around the mound. Newgrange may also have been a primitive calendar to the stone age people and the sheer scale of the mound shows that it was a significant feature in their community. The impressive mounds reveal the extensive knowledge these communities possessed about architecture, astronomy and art.