



## Imperial Rome and Ostia

### *Insulae*

#### **JANET DELAINE:**

Rome, as far as we can tell, was the largest city in the western world until the very late eighteenth and early nineteenth century of London and Paris. Before the days of modern transportation, the distance that anybody could live from where they worked from their centre, the political centre, from the economic centre, was dictated by how far you could walk in a reasonably short time. In Rome itself certainly, carts, which would seem an obvious alternative, were banned from the city during the day, they were only allowed in at night, with the exception of builders' carts. So that the population on the whole, unless they could afford horse or a mule, had to go by foot and I think this is the fundamental restriction on the horizontal spread. So that if you then increase the population, you need to go up. This reconstruction shows a five storey building - the kind where most people in Rome and Ostia lived. They are often referred to as insulae or 'islands' - which really means a city block bounded by four streets but an insulae can also mean an individual unit in the block

#### **COLIN CHANT:**

What remains of these buildings is usually the first two storeys, where the wealthiest residents, lived. The further up the building, the smaller the apartments and the poorer the occupants. This social structure is the reverse of the modern apartment block. Water was only supplied at ground floor level, if at all. This is the Insulae of love and Ganymede. One of the many to have been excavated at Ostia.

#### **JANET DELAINE:**

The insulae that we have at Ostia and the very few examples of Rome, are all built out of concrete. Now Roman concrete develops in a slightly different way to modern concrete, in that the basic building materials are fist sized pieces of stone, usually the soft volcanic stone called tufa bonded together with a mortar made out of lime and pozzolana - and it's the pozzolana, a volcanic product, which gives Roman concrete its great strength. It has properties very similar to modern Portland cement, in that it sets under water. The walls are built with two faces and a core, and the facing in Ostia and Rome in the imperial period, is mainly of brick, very thin bricks, a very typical material as you see everywhere around you in Ostia. The brick is often combined with opus reticulatum which are small pieces of tufa cut in to squares but set diagonally forming a network pattern. The brick-and-concrete arch lintels over this double doorway in the interior of the Insula of love and Ganymede were a standard feature of insulae construction. Exterior brick facings were often exposed, though the brickwork and opus reticulatum on the inside was covered with plaster, a trace of which remains.

The wall is constructed in two phases with a facing which is brick with narrow - fairly narrow - mortar joints, and the core itself. As far as we can see, the wall is built up in perhaps ten to twelve courses of brick, and the core is then laid between these two faces. and then we start again with the brick. The narrower mortar joints in the facing allow this to dry and develop strength more quickly than the core. and this allows the wall to go up fairly fast, in stages. In some ways building a Roman wall is far more like building a modern brick wall than building a modern concrete structure. Inside the building, stone corbels supported wooden floors. The wooden beams were bedded in holes in the walls in line with the corbels. Although little direct evidence of their floors and roof structures survive, Roman carpentering skills were of the highest order.

One of the joys of the Ostian insulae is that they're sufficiently well preserved to give us quite a good idea of how people actually lived in these buildings on a day to day basis. The large windows that you find everywhere and the fragments of window glass which have come out

of the excavations, suggest that glazing was quite common. We know in fact from some bath buildings that the Romans even knew about double glazing, and the thermal properties of it. The holes in the stone upright held glazing bars; which were doubled up around the hottest rooms.