

Roman Farming in the East Meon Hundred

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The Roman farming economy

By the time the Romans arrived in Britain in 43AD farming was well established in the East Meon Hundred as evidenced by the extensive field systems that had been created during the Iron Age and earlier.

There is archaeological evidence that the Iron Age farming units within East Meon developed into Romanised villas and farmsteads. Late Iron Age and Roman remains found at Old Down Farm, Peak Farm, Ridgehanger and the Roman villa in Stroud all provide us with valuable evidence that farming was practised in the area during both Iron Age and Roman times.

Early man kept himself and his family fed and clothed by hunting and gathering, taking what was needed from the environment and not replacing it, moving on when the environment in that area was no longer sufficiently productive. By 4000 BC this began to change. Woodland areas were cleared, pastures were created and cultivation was practised. By the second century BC organised and permanent field systems were established and land ownership recognised. Productivity improved as a result of the change from exploitation to conservation. Ditches, dykes, cross dykes and enclosures were used for stock control. The export trade of cereal products from Britain to Roman Gaul by the beginning of the first century AD reflected the progress late Iron Age farmers had achieved.

Although still largely a subsistence economy, Britain was stable and the security this provided encouraged economic and material development. One of the major strengths of agriculture in Britain at this time was that it was mixed; there would be bad years and lean spells but it was unlikely that everything would fail simultaneously.

The documentary evidence for this buoyant economy is clear. The writings of Julius Caesar refer to the export of grain and leather from Britain to the continent. He describes a densely occupied landscape and that agriculture was so much more successful here than on the continent because there were less severe frosts. The Atlantic climate of this country is, indeed, different from that of the continent and can be attributed in part for the success of the agricultural economy in Britain in the late Iron Age and into the Roman period.

The Roman arrival brought a stimulus to agricultural trade due to the influx of an army of thousands that required feeding, an administrative and taxation system on farm products and a new, more explicit social structure, one in which land ownership provided status and power.

The resulting economy based on massive governmental expenditure and Continental trade created immense amounts of wealth throughout the century and a half they were in operation. How much of this wealth was enjoyed by the indigenous population is hard to say. Whereas urban development was extensive during the early Roman period, the majority of Britannia's rural settlements, both prosperous households and less well-to-do farmsteads, remained un-Roman. There is little doubt,

however, that farming communities prospered too during the first and second centuries in particular.

This costly system could not be sustained when attacks on Roman territories in Europe at the beginning of the third century led to withdrawal of troops from Britannia. Once this happened, the patterns of trade and expenditure, upon which so much of life in Roman Britain depended, could not be continued. Life was difficult during the third century but gradually changes were made and many continental products that had been imported during the first and second centuries were replaced with British products: beer drinking replaced wine drinking, lard and butter replaced olive oil. By 300AD construction, rebuilding and redecoration projects were going on across Britain. Thus within two generations farmers had adapted to fill the gap left by the waning of the old economy and prosperity returned to Romano Britain. This was not to last. A series of small disasters, each one compounding the effects of the last, fractured the peace by requiring more resources than Romano Britain could afford. Towns, commerce and even the structures of the rural economy were undermined. Romano Britain declined rapidly and the economy that had been robust in 350AD collapsed. Britain had lost everything that made it Roman by 400AD.

The Arrival of the Romans

The arrival of the Romans must have led to some initial uncertainty but, in this area at least, there is no evidence of conflict or destruction. At the time of the invasion and conquest in AD43 Southern Britain was under the control of local Iron Age tribes, many of whom had existing trade arrangements with the Roman Empire. The Atrebatas, the ruling tribe in this area, seem to have submitted to the Romans without any significant struggle.

Roman control brought with it important changes for the local population as it became subject to Roman administration and taxation. Roman provincial administration was centred on civitates which were the Roman unit of territory applied to the indigenous local tribes. Each civitate was governed by a council whose centre of administration was the civitas. For East Meon the civitas was probably Venta Belgarum (Winchester). Land tax and poll tax were imposed to fund the development of a civitas and the principal public buildings that were a central part of Roman society.

The social structure of the Roman Empire relied on a power base which combined control of the military with the support of the landowning aristocracy, the wealth of the Empire coming mainly from agriculture. Thus in Roman society land ownership provided status and power. Those landowners in Britannia who were willing to accept and adapt to Roman control, administration and social structure were most likely to succeed in the new regime and subsequently benefit from the increase in wealth and status it brought them.

The investment of money in creating the infrastructure of Roman life stimulated growth in trade and population that needed to be fed. To benefit from the advantages this brought, the local population had to be included in the Roman monetary system. Controlling the quality and quantity of the money supply was an important way of managing the currency and a significant component in achieving economic stability. Venta was, therefore, not only an administrative centre but also a marketing centre for a new money economy. Local British landowners became wealthy through trading and gained prestige by embracing Roman social, economic and cultural values.

With a direct route to Venta along an ancient track, that is now the A272, skirting the north of East Meon and the distance between the two being no more than a day's journey, trading with the civitas was certainly viable. Farmers and landowners within the Hundred had an excellent opportunity to benefit financially and socially from Roman occupation. It is, therefore, perhaps not too surprising that the Iron Age inhabitants of the area appear to have adapted to the changes brought by the arrival of the Romans and rural farming activities established during the Iron Age continued and flourished through the Roman period and beyond.

Geology of the East Meon Hundred

The detailed geology of our area is very complex. But broadly speaking it is a mixture of chalk downland and the Weald Margin, with the clay soils becoming ever heavier as you ascend from the Meon Valley onto the Froxfield plateau.

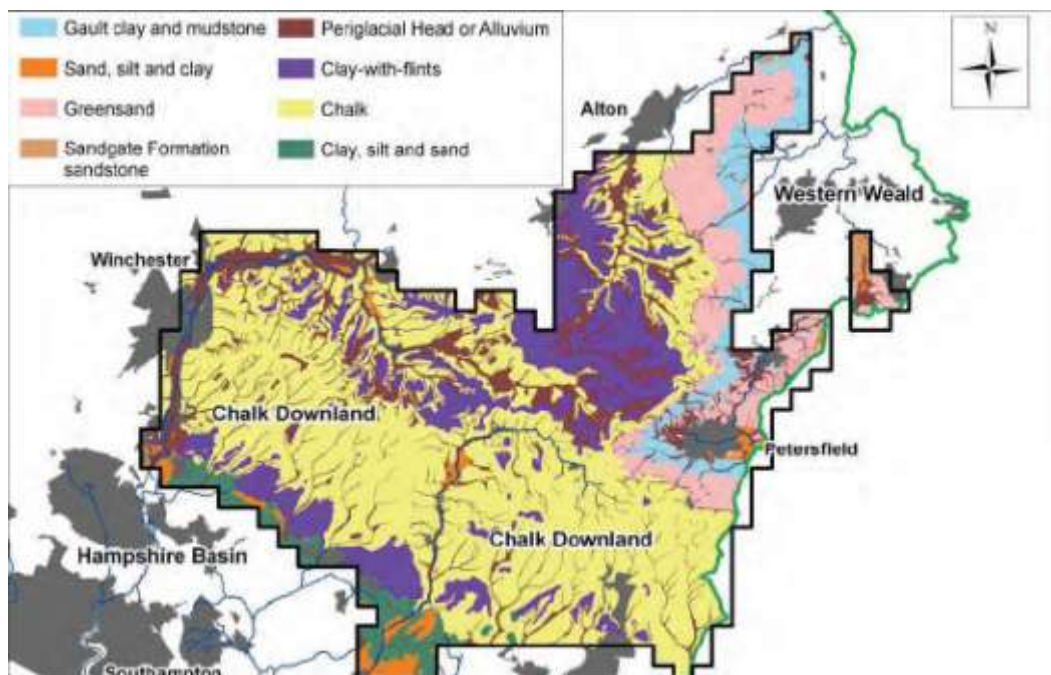


Figure 1 Source: Hampshire South Downs Mapping project

The dominant geological feature of our area is a prominent spine of chalk running roughly west-east and dissected by the river Meon. The chalk formations are the youngest rocks in the geological sequence and they form an expansive rolling upland with little surface drainage. Large areas of clay-with-flints overlie the chalk bedrock on the upper slopes to the north. The downs end in a dramatic east-facing scarp where a prominent outcrop of greensand forms an escarpment below that of the chalk. It is the junction of the greensand and chalk that is important in the location of farming settlements as it is where springs are likely to emerge.

Soils

Most of the soil has developed since the end of the last Ice Age and is the result of complex interactions between geology, land use and climate.

On the downs the soils are characteristically shallow, lime-rich top soils overlaying chalk rubble. Where uncultivated they are dark and humus-rich soils which support herb-rich downland and chalk

woodland. Over much of the area these soils are under cultivation and have been converted to a rubbly light brown mixture of topsoil and chalk. Freely draining, slightly acidic and heavier soils have developed on the northern plateau overlain by deposits of clay-with-flints. The soils on the Wealden Edge are complex with fertile free draining soils and more slowly permeable, seasonally wet basic loams and clay overlaying the mudstones of the Gault Formation.

Roman Farming

Ploughing

Although it is possible to prepare arable fields with spades, it is much less labour intensive to use a plough. The earliest type of plough used to prepare soil for growing crops was the ard and this was the predominant plough used in Britain in Roman times.



Figure 2 The Ard

Ard marks have been identified on a large number of sites in Britain and in the East Meon Hundred... Generally they comprise of interrupted scores in the subsoil, occasionally unidirectional, occasionally set at right angles to each other and, more infrequently, one or more sets diagonally posed to others. It is quite remarkable that such marks have survived at all. If they form part of regular agricultural activity repeated cultivation of a field with a standard plough would lead to thorough stirring up of the soil to a consistent depth. Experimental work carried out over a number of years at Butser Ancient Farm has resulted in a hypothesis that suggests that more than one type of ard was used and that the ard marks that have been identified were produced using a rip ard rather than a regular ard; a regular ard is only capable of stirring the soil to a depth of 0.25m. The rip ard was, in effect a great hook similar to a Spanish ard still in use today in the mountain region of Lugo province. The tip of the rip ard is dug into the soil and hauled forward by the oxen until it locks under the weight of soil and roots which are loosened and cleaned. The process is then repeated leaving interrupted tears or heavings of earth, roots and vegetation in the ground surface. It was used specifically to bring new ground or old fallow ground into arable cultivation and penetrated to a depth of 0.50m, far deeper than any type of ard.

Practical trials carried out at Butser Ancient Farm support the hypothesis that different varieties of ard were used in specific situations. The rip ard was the “sod buster” used to turn new and fallow ground, leaving evidence of its passage. The beam or bow ard was the tilling implement used to break down the soil prior to creating a seed bed. The crook ard was used to for drawing seed drills.

Used together these three implements would have assisted the farmer in all stages of preparing the land for sowing.

The rapid increase in demand for food during the Roman period meant large areas of land that had not previously been farmed were needed for arable farming and had to be cleared of trees and scrub. The introduction of the rip ard would have made this possible.

Crops

The recovery of plant remains and animal bones from excavated sites provides the main resource for understanding agricultural practice during the Roman period.

The best source of evidence for the crops from earlier times comprise the carbonised seeds of cereals and other plants, seed impressions fired into pottery and pollen grains. Unfortunately, the pollen evidence has little relevance to large parts of East Meon because of minimal preservation particularly in the alkaline conditions of the local chalk based soils. However, evidence from excavated corn driers in the chalk downlands presents the following picture:

Table 1 Source: *Fields of Britannia*

Crop	Early Roman	Late Roman
	%	%
Wheat	35	78
Oats	3	2
Barley	62	19
Rye	0	0

Emmer and Spelt were the wheat crops generally cultivated during the Roman period as they had been in the Iron Age. Wheat production rose during the late Roman period presumably to provide bread for the Roman well to do. Barley was also a major crop in early Roman times but decreased, probably as wine replaced ale as the drink of choice, particularly by the military and the landowning classes. Evidence for the cultivation of oats is ambiguous but it was probably grown along with beans, peas and flax. There is no evidence for the cultivation of rye.

In addition to the cereal crops it is likely that root vegetables such as carrots and onions would have been grown as well as beans, herbs and fruit.

Harvesting

It has been traditionally assumed that the harvesting of cereal crops involved the use of a sickle. Experiments carried out over a period of eleven years at the Butser Ancient Farm produced results that appear to discredit this assumption.

Cereals such as emmer and spelt have two characteristics that are not found in modern wheat. The first is the disparity of the stand heights between individual plants. In the case of both types of wheat this disparity can be as much as a metre from the shortest to the tallest spike, while in modern hybrids it rarely exceeds 0.4m. The second characteristic of Emmer and Spelt is the “necking” of both types. As the ears ripen they droop gracefully downwards from the main stalk in

the fashion of modern barley. The effect of this not only inhibits water retention within the spike but also exposes the stalk top to wind and sun. Once ripe this section of the stalk becomes extremely brittle and very easy to break off. When it came to harvesting the crop using the traditional sickle in the Butser trials, the use of the sickle waned rapidly. It was found to be grossly inefficient and very slow. It was much easier to reap the ears by hand picking. A combination of the variable height and the brittle nature of the stalk top, once it was ripe, made hand picking the easiest and quickest method of harvesting the wheat.

Animals

There is only partial data for this area from archaeological excavations, but we do have some data for both the chalk downlands and the clay with flints soils so widespread on the Froxfield plateau.

Table 2 Source: *Fields of Britannia*

Area	Early Roman			Late Roman		
	Cattle	Sheep	Pigs	Cattle	Sheep	Pigs
	%	%	%	%	%	%
Clay with flints	47	40	13	75	17	8
Chalk	30	64	6	43	51	7

There was a large increase in the percentage of cattle on all soil type from early to late Roman times. The increase in demand for leather for military uniforms and equipment would explain this change but the decrease in sheep farming is surprising as wool would have been required for uniforms too. Clearly there were always more cattle produced on the heavier soils types.

Climate

The climate of the last three centuries BC and the first two centuries AD are directly comparable to the present day climate. This includes the minor variations and occasional extremes; for example, the drought of 1976 experienced in the modern weather pattern. Crops that grow well in this area now would have also have grown well during the Roman period.

Field Systems

Crop marks, lynchets and banks which define a network of rectangular fields, so called “Celtic” fields, are good indicators of farming sites. They have frequently been dated to the Bronze and Iron Ages but there is evidence that they continued to be in use during Roman times and beyond. Some of these were identified by field walking but more frequently by aerial photography.

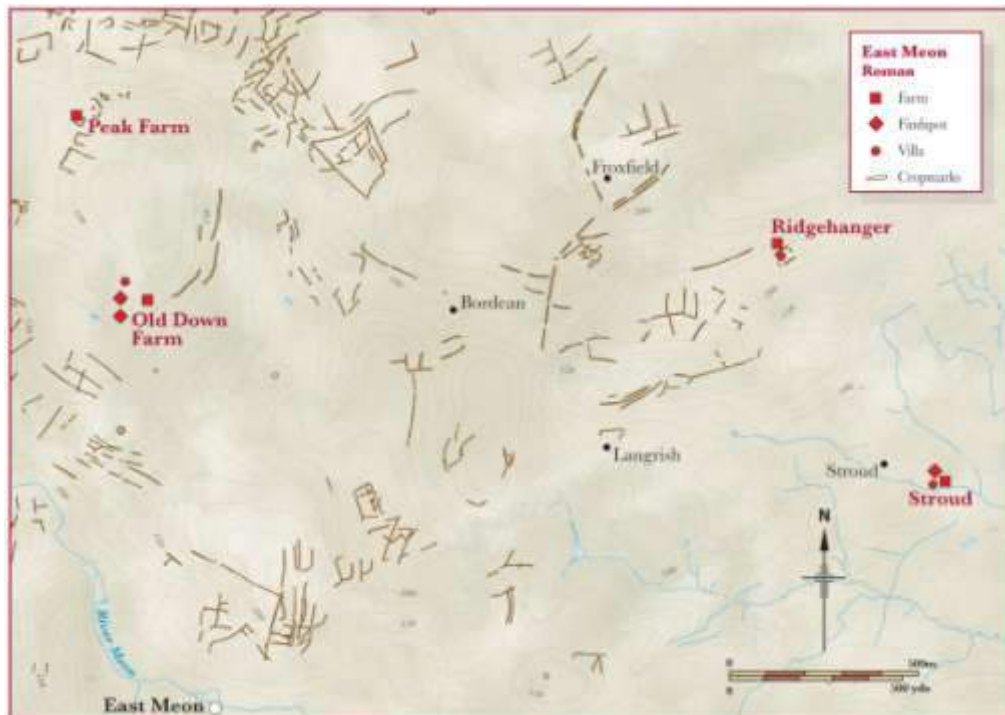


Figure 3 Crop marks around East Meon

The map shows crop marks that have been identified as being of Roman origin or earlier. It clearly shows the crop marks as being concentrated in groups and on higher ground, with very few in the valley close to the river. However, the absence of apparent evidence is not necessarily grounds for assuming only those areas for which there is evidence of crop marks were used for farming at this time as:

- Colluvial deposits in the valley may have buried any evidence of Roman or Romano British occupation. However, it is most likely that the risk of flooding made these areas unsuitable for settlement and arable farming but this type of land might well have been used for grazing during the drier months
- Compared with chalk, most other geological deposits in the area are unresponsive to aerial photography. They may be there but have yet to be detected
- Within the chalklands, areas capped by clay with flints are largely devoid of ancient fields. It is uncertain whether this is due to the clay not being conducive to crop mark formation or whether the less fertile clay lands were not used for arable cultivation. It is probably a combination of both
- Apart from the initial clearance of scrub and woodland, pastoral farming would not produce crop marks. Until the 18th and 19th centuries much of the downland was used for pasture.
- Woodland is unresponsive to aerial photography though it can be studied by the use of LIDAR. Unfortunately we don't have such data for East Meon.

Roman Settlements in East Meon

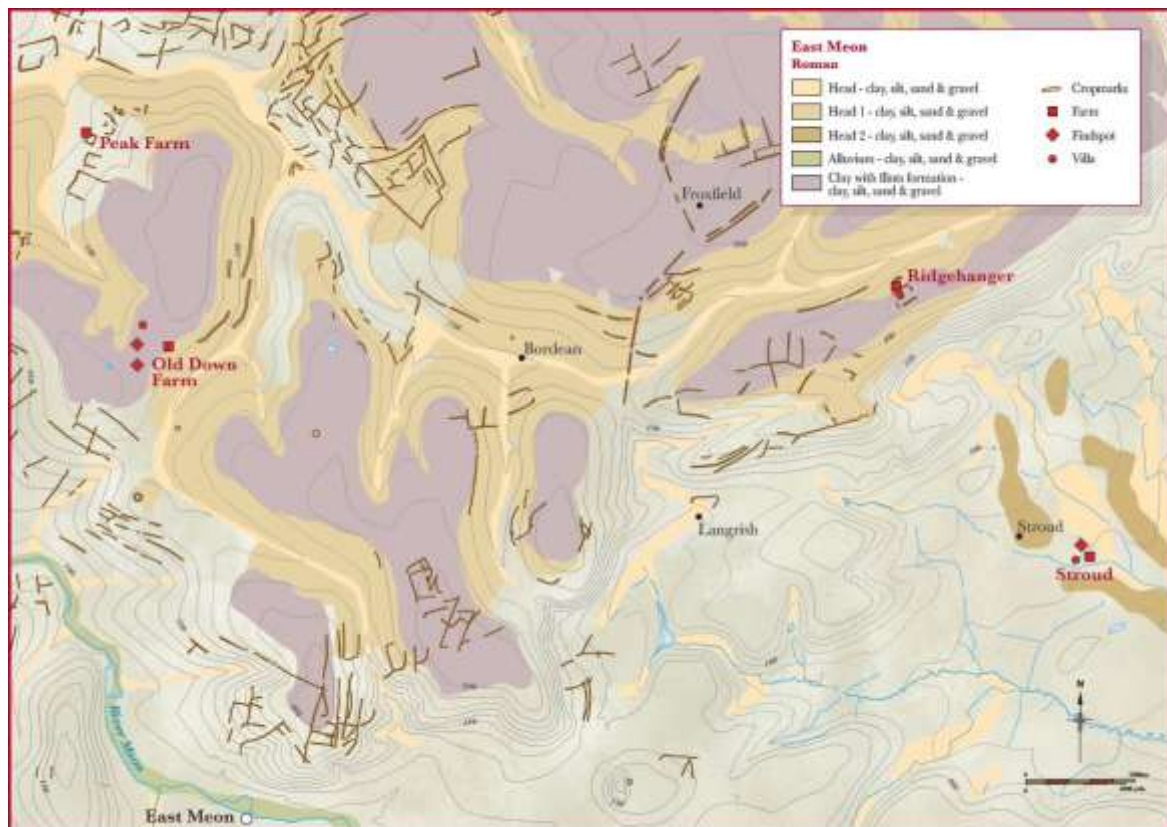


Figure 4 Roman settlements in the East Meon Hundred

The late Iron Age and Roman remains found at Old Down Farm, Peak Farm, and the villa in Stroud provide us with evidence that farming was practised on these sites during the Iron Age and Roman periods. These sites are all relatively close to the road that in modern times became the A272 leading to Winchester to the west and to the road from Chichester to London to the east. This was the practice in Roman times. Local roads connected the villas and farmsteads to major communication links; they tended to follow the regional terrain and unlike military roads could meander. It is likely that most of these local roads continued to follow and use the already existing track-ways that had been in use for many centuries prior to the arrival of the Romans.

The ownership of land in Roman Britain was complex and a villa and its immediate lands might have formed only part of a much larger estate. Each separate unit was devoted to particular agricultural activities and contributed to the productivity and wealth of the estate owner.

The villas and farmsteads in East Meon all sit upon the Upper Greensand bench at the junction between the Wealden Clays to the south and the Chalk Uplands of the Downs. The Clay and Greensand junction would have the spring line which would have made them particularly attractive. A water source is essential for any settlement but even more so for a farming settlement. Baths were also an important part of Roman social culture and so a site offering a permanent supply of fresh water would be chosen above any other.

Crop marks and field systems provide further evidence that these identified sites were farm settlements. However, the concentration of crop marks and field systems in other parts of East

Meon raises the question as to whether there were further, as yet unidentified Roman or Pre-Roman settlements in the Hundred.

Stroud Villa

Of the known Roman farmstead and villa sites within East Meon, the villa at Stroud is probably the most illuminating in terms of providing information about Roman farming. The villa was excavated in 1907 by A. Moray-Williams. The only documentary evidence of the excavation was a report in the *Archaeological Journal* 1909. The analysis of excavated material was rudimentary in comparison with the methods used today but we do have very detailed records, including plans, of the structures and lay-out from which we can deduce some detail.

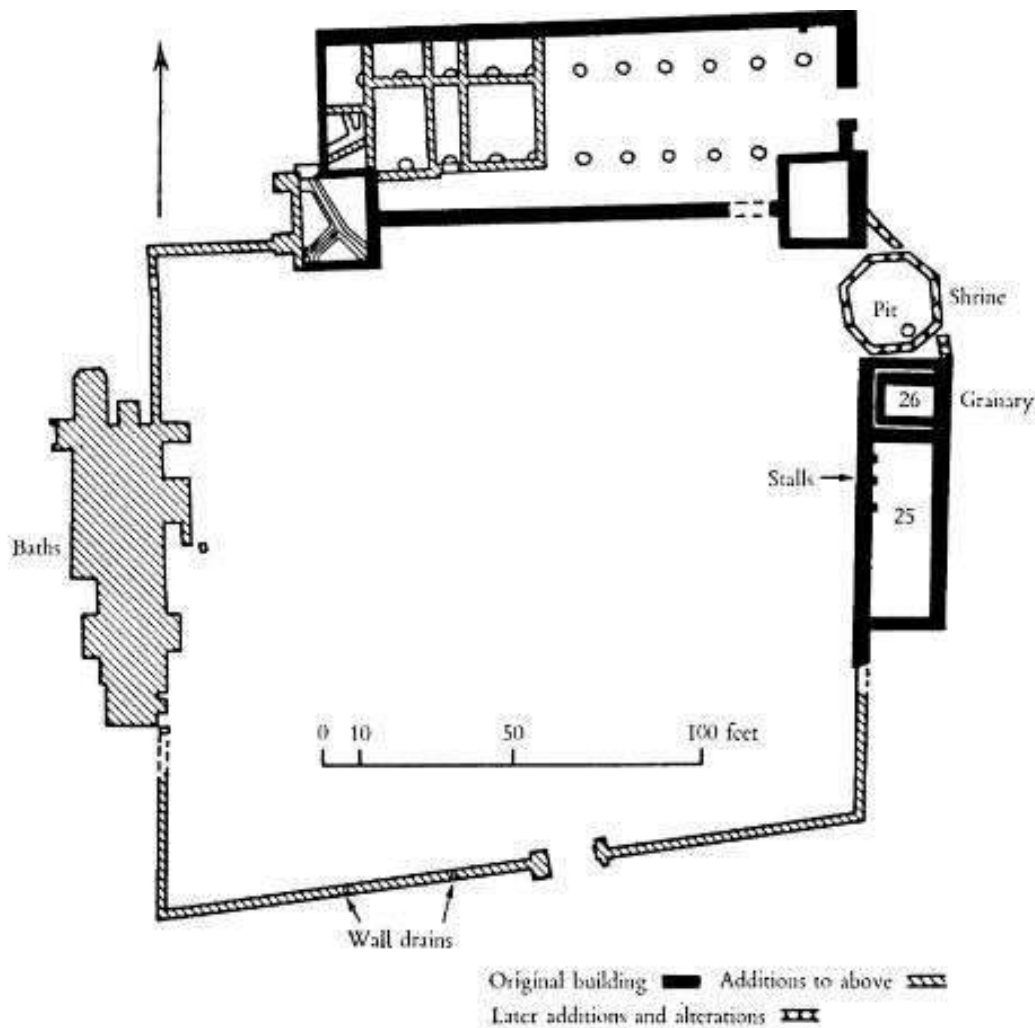


Figure 5 The Stroud Roman Villa

The main building was an aisled hall 84 feet by 50 feet constructed in the second century but its outer walls included some first century materials suggesting it was built on the site of an earlier building. Nine rooms were inserted into the western end of the hall as a later alteration, probably at the beginning of the third century. Five of these rooms had red tessellated floors and the connecting corridor had a patterned mosaic floor. Two of the rooms were heated by a hypocaust.

The western block also added at the beginning of the fourth century, was probably a bath house which consisted of 13 rooms. At the south east corner of the complex, between the aisled hall and the eastern block was an octagonal structure 20 feet in diameter. This was also added in the fourth century. A pit found in its interior suggests the building had a sacrificial function of a religious nature. It bears close resemblance to similar structures found in other Roman villas. These have been identified as being Roman temples or shrines.

Immediately to the south of the octagonal shrine, was the eastern wing. This was a long rectangular building divided into a smaller northern compartment and a long room that measured 52 feet by 18 feet. The northern room possessed an internal offset all round to support a timber floor over a void to maintain the contents of the room in a dry condition. There can be little doubt that this was a granary but a relatively small one.

The northern part of the west wall of room 25 had an inner wall of three buttresses that would have divided stalls, the width of each of these was eight feet; each stall would have accommodated a pair of oxen, six oxen would have been sufficient to work 187.5 acres of arable land. The rest of this building may have been used for other stock or to store hay or other produce. In addition a timber outbuilding seems to have existed, probably in the form of a lean-to shed along the west part of the south wall of the yard to the west of a gateway. It is possible that a dung heap occupied this area, conveniently near the gate to be carted to the fields during the winter.

Although there are clear indications that farming was practised, the facilities for storage of grain and feed and for housing livestock were insufficient for the Stroud Villa to operate as a farming centre. However, its proximity to Butser with its grazing potential for sheep rearing may be the aspect of farming that was the focus here. This would not necessarily manifest itself in the excavations. No animal housing or storage space for fodder would be required. Labour demands would be seasonal leaving hands or slaves available for more labour intensive activities for significant parts of the year. As wool was a valued commodity during the Roman period is likely to have been a significant source of income.



Figure 6 Pictorial representation of the Stroud Roman Villa

By the beginning of the 4th century most of the Roman army had been moved from Britannia to more pressing duties in Europe. Romano British land owners who had willingly adopted the Roman lifestyle were in a good position to move into the gap left by the Roman elite and take control. As a result wealth and power became concentrated in the hands of a few who came to control more land and labour. It would seem likely that it was through this process that the owner of the Stroud Villa was in a position to make elaborate changes and additions to his property at the beginning of the fourth century.

Ridgehanger Farmstead

Ridgehanger was first excavated in 1855 and apart from further investigation by Mr Moray Williams and boys from Bedales School at the beginning of the twentieth century very little investigation has been carried out on this site. Mr Applebaum refers to this site as a “farmstead.” More recent archaeological discussion and Hampshire County Council Archaeological Department refer to it as a “Roman camp”. Although the site is on the land of the current Ridgehanger Farm, nothing relating the site directly to it being a Roman farmstead has been discovered to date. There appears to be evidence of a Roman bath but this would be conducive to it being a camp housing soldiers. A series of earthworks and banks suggest the site was defensive nature rather than a farm. The wooded land along the hanger may have been used for rearing pigs and cattle but there is no clear evidence of any farming activity here during the Roman period. If farming was being practised in this area the confirming evidence is still to be found.

Old Down Farm

Part of a Romano-British farm complex was excavated south of Old Down Farm in 1976 when a salvage operation was carried out after Roman remains were found during the infilling of a chalk pit. The main features located were an enclosure and a group of postholes together with pits and gullies. The site was shown to be part of a large Roman settlement which extended further north and south of a former quarry site. Pottery finds date the site from the late Iron Age to the second century. Two ditches located during the excavations appear to form an enclosure but were presumed to be of different dates. One was dated to the second half of the second century; the other had no dating evidence. Two cremations were also found. One that contained grave goods was dated to the late second century. The gullies, post holes and a pit all produced second century pottery. Quantities of roof and box tiles suggested there had been a substantial building in the vicinity.

Crop marks and field systems within the vicinity of the finds provide further evidence for stating this was a farm settlement during the late Iron Age and that it continued as such well into the second century.

Peak Farm

Aerial photography has identified earthworks, lynchets and a complex of curvilinear features likely to be of the Romano-British period in the vicinity of what is now Peak Farm as we saw in Figure 4. This provides substantial evidence that the area surrounding Peak Farm was farmed during the Iron Age and into the Romano-British period. Further very extensive crop marks and field systems north east of Peak Farm suggest the possibility of another, as yet unidentified, farm settlement. It could be that these were part of the complex at Peak Farm and this was a large farming centre with the buildings that would be required to support such a complex as yet undiscovered.

Further, as yet undiscovered, farming settlements?

Other sites of Roman finds in the East Meon Hundred, particularly at South Farm and the density of crop marks on Ramsdean Down & Butser, Small Down, Hyden Hill, Teg Down, Tegdown Hill, Wether Down and Salt Hill all point to the possibility of there being other, as yet undiscovered farming settlements linked to the extensive crop marks and field systems.

Ramsdean Down

The steep slopes of Ramsdean Down are covered in earthworks with cross-dykes on the upper slopes that can still be clearly seen, having been preserved by their use for grazing sheep.

The steep scarps have always been a marginal zone and so even at the height of arable cultivation of the downland during the Romano-British period the higher areas would not have been used for arable crops as the scarps were too steep for ploughing and remained usable only as sheep pasture. The value of the scarps for this purpose is clear from the fact that the original woodland cover was completely cleared.



Figure 7 Crop Marks on the downs

The density of field systems and crop marks identified by aerial photography on the lower slopes of Ramsdean Down, Coombe Down and Tegdown testify to their use for arable farming. These field systems probably predate the Roman period but there is no reason to believe other than they continued to be used at least until the end of the Roman period

There are numerous trackways on Ramsdean Down, Coombe Down and Tegdown, many of them sunken and terraced. They cross the slopes and probably provided links between the downland pastures and the arable fields on the lower slopes and in the valleys. The complexity of tracks leading from this area of the downs to Stroud, Ramsdean and north to the track towards Old Down Farm and Peak Farm and the road to Winchester, leads one to wonder just how much farming activity was taking place in the Hundred of which we are still unaware.

Fish Farming in Langrish?

Up until the Second World War there was a pond at the bottom of Langrish Hill, between the Church and the junction of the A272 with the road to East Meon. Local tradition has it that the pond was created in Roman times for the purpose of farming fish. The alignment of the road between the

Froxfield turn off and The Green in Langrish was changed during the war to allow the passage of army tanks down the hill, the pond was drained and drainage pipes used to stop the road flooding during periods of wet weather. Although there is no archaeological evidence to support this, a pond still forms in the same place in very wet weather suggesting perhaps there is some truth in this story.

What happened next?

With the departure of the Romans life became difficult but during the first half of the fourth century replacement industries began to be established and flourish. Goods were being manufactured and produced in Britain to replace those previously imported. Prosperity returned but it was the landowners and the Romanised elite who benefited from this development. Wealth and power were concentrated in a few hands. The increasing success of this elite group enabled those within it to control both land and labour. In the fashion learnt from the Romans, some of this new found wealth was used to make elaborate improvements to properties to demonstrate wealth and confirm status and power. The changes made to the Stroud Roman Villa during this period are an excellent local example.

Britain could have continued like this for centuries but a series of small disasters, each one compounding the effects of the last, ruined the Romano British economy by fracturing the peace and by requiring more resources for defence than Britain could afford. By the beginning of the fifth century rural villas fell into disuse, communities became more scattered and farming became a subsistence activity. It is at this stage that Stroud villa, Peak Farm and Old Park Farm fell into disuse. It is likely that Ridgehanger fell into disuse early in the fourth century when the Roman army departed to the Continent.

Farming in post Romano-British times, freed from the demands of imperial armies, elites, and towns, no longer required large-scale cereal production. Things reverted to something resembling the past, farming in a less intensive way, each farmer growing the crops that they needed themselves plus enough to support non-productive members of the population. Pollen records show that a sufficient number of grazing animals were maintained to prevent the landscape reverting to wilderness. Given the thinly scattered human population at this time, livestock farming took on a renewed importance in the global economy. A small number of people could supervise fairly large numbers of livestock and extensive areas of land.

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