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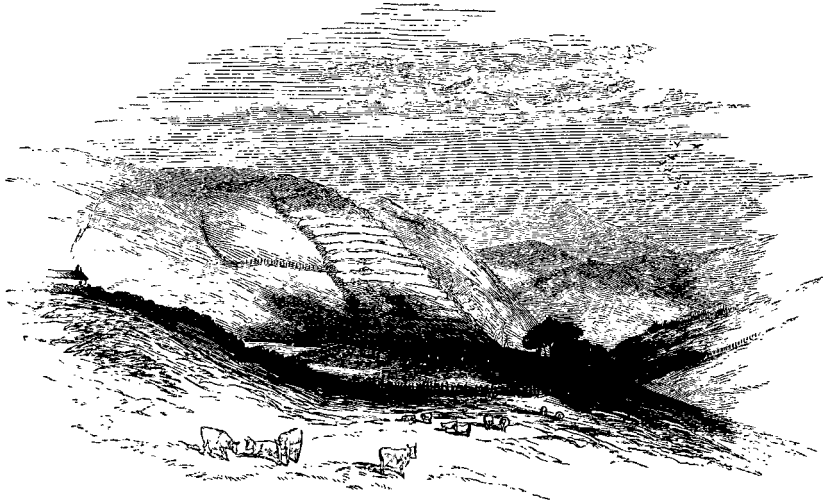
ON ANCIENT TERRACES OF CULTIVATION, COMMONLY CALLED DAISSES.

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The author of this paper adverted to examples of such terraces described by Pennant as existing, under the name of *baulks*, between Pallinsburn and Cornhill in Northumberland. In Scotland they are chiefly to be found in the vale of the Tweed and neighbouring districts, and there they are called *Daisses*, *i. e.* bench seats.

Purves-Hill is a farm about eight miles below Peebles, rising from the left

bank of the Tweed, and of course facing southwards. It belongs to the estate of the Horsburghs of Pirn. The farm-steading, now deserted, is situated on a sort of platform on the hill-side, 240 feet above the river. The steep hill-face under the house is marked, all the way down to the haugh by the river's side, with terraces, extending over the space of a quarter of a mile. These terraces are more distinct towards the west than towards the east. They decline considerably in the former direction, melting away irregularly upon the pastoral face of the hill. The road to the farm-house ascends along one of them. The post-road, about fifty feet above the haugh, passes along a lower and less inclined one. At a point directly below the house, the number traceable is twelve, including two short ones between the haugh and the road. They are, in general, sharply defined, but a quantity of wood somewhat obscures them on a general view. It is evident that they have formed one arrangement for the whole space of ground between the river bank and the house, without any regard to inclosures or to roads.



[TERRACES AT NEWLANDS.]

Another equally marked series of terraces is found on a hill-face close to Newlands Kirk, in the west of Peeblesshire. They are at least twelve in number. They occupy a piece of the hill-face commencing about 40 feet above the immediate banks of the Lyne, and extending upwards about 110 feet. The

length of the entire space occupied is about the fifth part of a mile.¹ The hill, which faces the west, bends outwards, or rather comes to an obtuse angle; and the terraces are better marked to the north of this angle than to the south. They slope upwards from the north extremity to the angle, and then descend in the other direction. Two couples, however, of those on the north face descend the south face united into one. There has been no great effort at regularity in the intervals: there are two of the intermediate banks more than twice the depth of the average of the rest. The faces of these banks are generally very steep—fully more, I should think, than the natural angle of 38° which banks of loose materials assume.

The terraces have been formed out of the soil of the hill-face, which is everywhere several feet in depth, and of a fine sharp quality. There is no trace of masonry in their construction. Some of the country people think that there are appearances of passages from one terrace to another, as in roads which ascend by a series of traverses; but I could not convince myself of the existence of any such peculiarity. The whole arrangement has apparently been one designed simply for cultivation, or as a piece of ornamental ground; and in favour of this latter idea, there were till lately remains of an ancient house on the top of the hill, immediately over the centre of the terraced space. The farmer found many free-stones among the ruins of this building, all of which he carried away and made use of. He also found among the ruins a fragment of a *quern*. In respect of their connection with a building, these terraces resemble the similar group at Purves Hill.

Similar terraces exist at Kilbucho, also in Peeblesshire, and at Dunsyre, in Lanarkshire. In all the three last instances, the situation is from 600 to 700 feet above the level of the sea. There is a group of the same objects at North Middleton, in Edinburghshire. The hill behind Markinch is marked on its north face in this manner. A correspondent has also described some such objects at Castle Sempel, in Argyllshire.

Terraces evidently designed for cultivation are conspicuous on the south-east slopes of Arthur's Seat, above Duddingston. A group of them near the Dunsapie Pond, is visible from the low grounds towards Musselburgh, being particularly well seen in summer evenings, when the descending sun brings them into strong light and shade. On a careful inspection, however, of this part of the hill, it is found that the whole space from the park wall at Dudding-

¹ It would appear from the description of Alexander Gordon, that the hill was, early in the last century, terraced for a more considerable space. He adds—"For a whole mile it appears not unlike a large amphitheatre."—*Itinerarium Septentrionale*.

ston, westward to what Mr Charles Maclaren calls the Loch Crag, and rising to a point within about 350 feet of the summit, as well as around Dunsapie, is more or less strongly marked by terraces, the only interruption being where the Queen's Drive has passed through the vertical range, and created for some space a new surface. They are conspicuous at the bleaching-green set apart for the villagers, and descend even to the edge of the loch. Towards the west, the Loch Crag has served as an inclosure, and from the point near the path where that line of cliff stops short, down to the water, there has been a stone wall, of which faint traces survive. Thus it is clear that the arrangement has preceded the existence of the present footpath to Duddingston. There is a subdivision about half-way between the Loch Crag and the bleaching-green, though a doubt may be entertained if it be coeval with the terraces.

Some of the terraces, both above and below the Drive, are of a strongly marked character. It is quite evident that they have been carefully formed, with a facing of wall composed of rough blocks, and the faces of several are so well defined and steep that it is barely possible to climb them. They are in general tolerably level, or undulate slightly, and it is evident that they have been formed as closely together as possible. What is remarkable, the pastoral ground over which they extend has many rough blocks scattered over it, such as would form an impediment in any kind of cultivation; but it may be doubted whether these have not fallen from the cliffs above since the time when the terraces were used in that way.

The terraces here described are certainly of great antiquity, and totally unrepresented in the modern usages of our country. The country people have no traditions regarding them, and are even under an uncertainty as to their design and use. The idea that they were designed as seats for the multitudes assembled at plays and spectacles, is more prevalent than any notion of their having been fashioned for purposes connected with agriculture or horticulture. And yet no doubt can be rationally entertained that they were constructed for purposes of culture. This I deem sufficiently clear from the exact resemblance which they bear to terraces in other countries which we know to be formed for those purposes. Such terraces present themselves on slopes near Boulogne; likewise along the rising ground above the Bergstrasse, between Baden-Baden and Basle, the cultivation of the vine being the object held in view in the latter district. I observed some such terraces on a hill-face at Haimburg in Austria, near the borders of Hungary. We learn from Garcilasso de la Vega, that the ancient Peruvians practised agriculture with an unusual degree of intelligence, having a system of laborious irrigation, and forming terraces upon hill-sides that were too steep for ordinary cultivation. These he calls *Alleys*, and he

describes them as constructed with retaining walls somewhat inclined inwards. The description on the whole would be pretty applicable to the terraces on Arthur's Seat. Similar terraces were formed for cultivation in ancient Palestine, where the practice is still to some extent kept up. According to Dr Royle, "a series of low stone walls, one above another, across the face of the hill, arrested the soil brought down by the rains, and afforded a series of levels for the operations of the husbandman. This mode of cultivation is usual in Lebanon, and is not unfrequent in Palestine, where the remains of terraces across the hills, in various parts of the country, attest the extent to which it was anciently carried. This terrace cultivation has necessarily increased or declined with the population. If the people were so few that the valleys afforded sufficient for them, the more difficult culture of the hills was neglected; but when the population was too large for the valleys to satisfy with bread, then the hills were laid under cultivation."¹

It is not, however, necessarily to be supposed that the plan of forming such terraces was derived by our country from any other; for it is one which would be suggested by natural circumstances to any people of a certain degree of intelligence, and who had an inclination to a superior mode of tillage. As the whole object of the terrace-form of culture where it is now practised, is to retain the finer particles of soil, which otherwise would be washed down to the bottom of the slope, such may be presumed to have been the design held in view by our ancestors also. A wonder indeed arises at so much pains being taken with particular spots of ground, in an early, and it may be presumed, barbarous age, in places where, from the elevation above the sea level, nature is far from being kindly to the husbandman, and even, it may be further remarked, on slopes presented in by no means the most favourable directions. It is certainly curious to find such examples of cultural skill and care in the high pastoral territory of the south of Scotland, where it is generally believed that during long intermediate ages hardly any tillage was practised except upon the low alluvial grounds. Fields close beside the terrace slopes are now regularly ploughed; but we can well understand how inapt a native of Peeblesshire would be a century ago, to imagine that the hill-face of Pendriche could ever have been cultivated, when he was so totally unaccustomed to see tillage in such a place.

It must nevertheless be admitted that we are apt, from our recollections of Scottish agriculture just before the period of the Cockburns, Kameses, and Sinclairs, to under-estimate the point to which it had been brought in an age

¹ Kitto's Biblical Cyclopædia, Art. *Agriculture*.

not very long antecedent. I was much impressed with this idea when I found, in a curious volume of the Maitland Club series, a return of the teinds paid at the beginning of the seventeenth century on the farm of Cobryhill, in the south of Mid-Lothian. It is a bleak slope of from 800 to 900 feet above the sea, and with a northern exposure, where we might suppose that no ground had ever been ploughed till the days of turnip-husbandry and Protection. Yet it was an arable farm in 1627, when the teinds were six firlots of beir and three firlots of oats.¹ It is also often remarked with surprise, that slopes in the Lammermoors, now pastoral, and at such an elevation as to seem unfit for any other husbandry, bear marks of ancient ploughing.

One very reasonable inference, therefore, from these terraces is, that there had been an early period in the history of our country when either the intelligence or the exigencies of the people caused them to cultivate with extraordinary care pieces of ground which, in the early part of the eighteenth century, would have been left to pasturage at the best.

It is, indeed, to be observed that these fragments of an ancient culture appear to have generally been connected with mansions. Such has undoubtedly been the character of the Purves Hill and Pendriche examples, and we suspect it has also been the case with the *daisses* of Arthur's Seat, a point to which we must presently return. But though it might be established that all of them had been formed in connection with mansions, it would not greatly affect the conclusion that culture was then practised in situations which, in an intermediate period, would have been deemed unsuitable. It rather enhances the effect of that conclusion, as shewing elevated and by no means sunny spots, as then deemed fit for the pet culture and decoration which a man of distinction desires to practise around his residence.

The remark which remains to be made regarding the terraces of Arthur's Seat is one which I bring forward with considerable hesitation, and to which I only can reconcile myself by the hope which attends it, that it may be the means of eliciting either proof or disproof; in either of which cases I shall think that a service has been rendered to archæological science.

It is well known to this Society, that, in 1775, Sir Alexander Dick of Prestonfield, in dragging Duddingston Loch for marl, brought up a weighty heap of "swords, spears, and other lumps of brass, mixed with the purest of the shell marl;" likewise some "large fragments of deer's horns of an uncommon magnitude," and also some human skulls and bones. The horns and the bones have not been preserved; but our Society has the good fortune to possess up-

¹ Reports on State of certain Parishes in Scotland, 1627.

wards of fifty pieces of the swords, spear-heads, and fragments of other weapons thus excavated from the loch. Sir Alexander Dick, who was a man of remarkable acuteness of understanding, observed that some of the lumps of brass had been half-melted; and "my conjecture," says he, "is, that there had been upon the side of the hill, near the lake, some manufactory for brass arms of the several kinds for which there was a demand." This conjecture is countenanced by our learned secretary, Dr Daniel Wilson, in his work on the Pre-Historic Annals of Scotland. "The discovery," he says, "of gigantic deers' horns and fragments of others, along with the weapons and masses of melted bronze, would seem to add to the probability that some considerable manufacture of such weapons had been carried on at some remote period on the margin of the loch, and that these were collected for supplying them with handles."

It is solely under the shelter of these opinions, that I venture to intimate the possibility that, in the terraces which rise from the border of the lake to a point about 400 feet up the hill, we see the remains of the agricultural arrangements connected with the establishment in question. It requires no very fanciful antiquary to detect about the village bleachfield and the adjacent ground, the softened, mouldering appearances of dwellings which had once enlivened that beautiful spot. The fine shelter and exposure, the beauty of the lake, and the springs of excellent water which issue from the base of the hill, would conspire to render the place attractive from an early period. What adds considerably to the probability of a bronze foundry having been placed here, is the fact of two several findings of articles of that kind having taken place close to the terraced ground; one of a pair of bronze leaf-shaped swords, and another of two large spear-heads and a small drinking-cup. I have ascertained that the first of these findings took place just beyond the now apparent western limit of the terraces, and the other a little farther to the westward. There is surely something to justify a modest amount of generalization in so many discoveries of bronze antiquities in connection with this spot; and my conclusion, therefore, is in favour of the *probability*, that the daisses of Arthur's Seat were formed by persons engaged in the business of forging weapons and ornaments in that early age which has been called the Bronze Period; consequently, that to this era we must assign all the other examples of that peculiar mode of culture which have been noticed. If this hypothesis be substantiated, the daisses will of course take their place amongst the very early antiquities of Scotland, and as further and most interesting proofs of a partial civilization in our country long antecedent to the times of written history.