

The
Stones of Sherborne Abbey

by
Joseph Fowler.

One shilling.

The following account of the different kinds of stone used by the builders of Sherborne Abbey is the substance of a Lecture given on March 24th, 1938, to the Friends of Sherborne Abbey, and now published at their request.

“The stone shall cry out of the wall.”
Habakkuk, ii, 11.

Name of the Building Stone.	Geological Formation.	Where used in the Abbey Church.	Century when used.
Tufa	Recent ...	Vaulting of Nave and Choir Roofs ... [Undercroft of Bp. Roger's domestic chapel, Old Castle]	15th.
Purbeck Marble ...	Purbeck Beds ...	Shaft in Lady Chapel Abbots' tombs	12th. 13th. 13th.
Forest Marble ...	Forest Marble ...	Lower part of old Font Window shafts in Bp. Roger's Chapel ... Steps to Altar, and entrance to Chancel ... Shafts in restored Lady Chapel	15th.* 13th.* 19th. 20th.
Sherborne Building Stone	Inferior Oolite ..	Exterior walls, and buttresses, in part ...	16th, etc.
Ham Hill Stone ...	Upper Lias ...	All Norman, and Perpendicular work ... Upper part of old Font, and stone coffin ... St. Aldhelm's Doorway [Conduit]	12th & 15th 10th or 11th* 16th.
Keinton Stone ...	Lower Lias ...	Floor in Ambulatory Steps at South and West Entrances Floors in Lady Chapel, and Bow Chapel ...	19th.* 19th. 20th.

*The dates starred must be taken as doubtful,
and subject therefore to correction.

INTRODUCTION.

SHERBORNE ABBEY is like one of those crossed letters old ladies used to write—it is a Perpendicular church superimposed upon a Norman one, yet not so as to obliterate the main lines of the earlier building.

Both the 12th and the 15th century builders were content with nothing less beautiful than Ham Hill Stone, and as all other additions to the church have been, in comparison, unimportant, Sherborne Abbey is essentially a Ham Hill Stone building.

Other building operations went on, however, between whiles, and have been going on ever since—for an old church is never finished—and other materials than Ham Stone have been used. There are six, altogether, which seem to me of sufficient interest in themselves, and to have played a sufficient part in the Building, to form the main theme of my lecture—beginning with the oldest, in a geological sense, and ending with one which is still actually in process of being formed in this neighbourhood to-day.

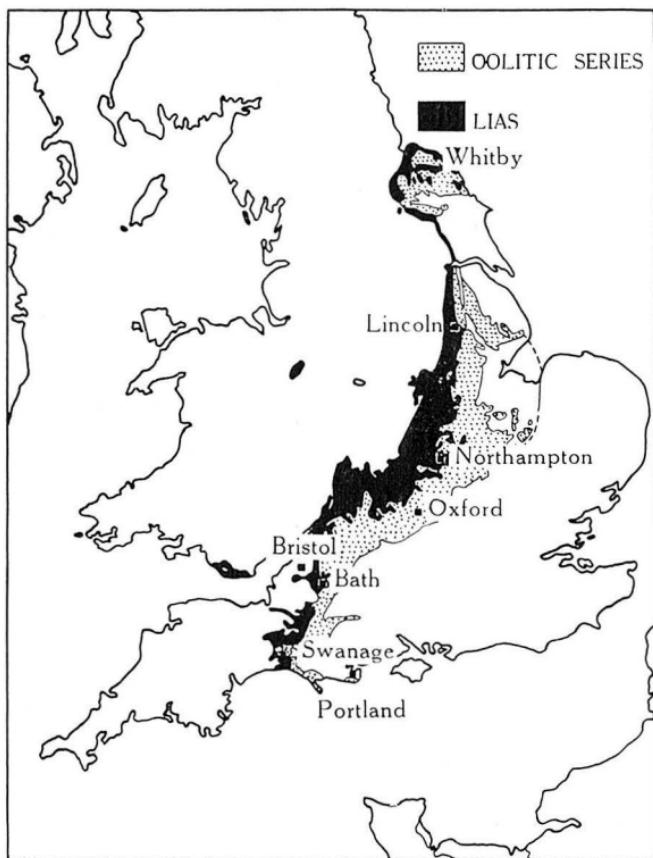
And first, as a general preface, let me say that all the stone in Sherborne Abbey is limestone, though it is not all the same kind of limestone.

The accompanying map of England¹ shows the geographical distribution of the particular beds of limestone of which our Dorset rocks form a part. There are other kinds of limestone in England besides those which are shown here, but, as none of them were used in the building of Sherborne Abbey, we need not consider them.²

Notice how these Jurassic outcrops form a belt

1. Taken from Dr. F. J. North's *Limestones, their Origins, Distribution, and Uses*, p. 178. He very kindly lent me the block.

2. I do not count the base of the alabaster pulpit, and the tread of the steps leading up into it, being no part of the structure of the church. They are of Derbyshire Marble, full of "screw stones," or fragments of "stone lily" stems, and much older than even our Dorset rocks.



Map showing the geographical distribution of Dorset and Somerset Limestone (Jurassic) across England.

of limestone country drawn diagonally across England, from sea to sea. And remember that, whilst more recently formed rocks overlie them to the south-east, they in turn overlie rocks immeasurably older than themselves to the north-west. In fact, the outcrop of our Jurassic rocks forms a kind of half-way line across the country between those, to the north-west, which hold the fossilized remains of the earliest forms of life known to us, and those, to the south-east, which have witnessed during their formation, the gradual development of life up to the present day.

Limestone is, on the grand scale, the same substance as the “fur” in the kitchen kettle, and Nature has produced it in much the same way, namely as a deposit from water containing lime in solution. By a kind of legerdemain she has brought forth Rock out of what, to all appearances, was pure water—sometimes chemically, but more often by the instrumentality of creatures living in the water, whose remains, mingled with the limy sediment, were sealed up and converted with it into solid limestone.

And since all the limestone of our native hills has, at some time, passed through a stage when it was held invisible for a while in water, it is not pure fantasy on my part to suggest to your imagination a time, or even times, when every particle of lime in every stone in Sherborne Abbey existed in an invisible state, hidden from the eye in clear water.

Nor is this all: for one can imagine a time when, like the airy forms which Prospero raised and then dispersed at will, the solid substance of which the Abbey church is built will yield once more to Nature's solvent powers, and, “like the baseless fabric of a dream the cloud-capped tower the solemn temple leave not a wrack behind.....”

This seems impossible. But we must remember that things are not always what they seem. Nothing can be more certain than that limestone, exposed to the weather, decays, and is already on its way to final dissolution. That is one reason why those responsible for the preservation of an ancient building, like Sherborne Abbey, are never free, for long, from the problems of restoration. It is the reason why this Lecture was given.



A Quarry at Keinton Mandeville. (Lower Lias).

These natural layers of grey limestone are used in the church
for pavements, and steps.

I. KEINTON STONE.

Keinton Stone is of a greyish-blue slaty colour, and very familiar and homely to us in Dorset and Somerset because of its wide use, in villages and towns, for door-steps, pavements, and kerbstones. The broad steps down into the Abbey church at both the west and south entrances, and the floor of the Porch, are of Keinton stone, though not all of it came from the village of that name for some is from Somerton, where beds of the same limestone occur. It is rather a curious coincidence, that the most *recent* addition to the Abbey, namely the restored Lady Chapel, should be paved with the *oldest* rock, geologically speaking, in the whole Building. This pavement and that of the adjoining Bow Chapel (now the Children's Corner), is of Keinton stone, but its natural beauty has been ruined by what I believe to be the quite unnecessary precaution of dressing the surface with a chisel. In the Ambulatory adjoining, the pavement is also of Keinton flags, many of them old Memorial stones, unspoilt by fussy "dressing," and no floor could be more restful and satisfying either to walk, or linger upon. I always think it must be a pleasure to wash this pavement, and see the natural colour revive upon the wet surface. What an improvement it would be if the whole church was paved with these Keinton flagstones instead of the present dreadfully crude tiles !

The country round Keinton is very different from ours at Sherborne. The land is flat, divided into rectangular plots of orchard and grass, for the soil is too heavy for the plough. Even the colour of the houses and churches is different—grey, instead of brown. For, in travelling north, we have passed off the brown limestone rock on to older grey beds, which crop out from below the Sherborne limestone, and form the wide floor of the Vale of Ilchester.

These grey Beds, from which the Keinton flagstones come, were originally so much slimy mud on the floor of the sea. Not the present sea, of course, but the sea before the last but one, if that way of putting it conveys a better notion of its extreme age. It was a sea well stocked with monstrous reptiles, and teeming with life which was both like and yet still more unlike

anything we know now. And there were oyster-beds, too, in the shoal water, some of the occupants of which have left their shells, as you may see, in the stone that now forms the second step down into the church at the south entrance. There are other fossils, as well, in the steps at the west end of the church, which you may find if you look for them.

The Keinton Quarries are themselves worth a visit, if only to see how regular the beds, or layers, of limestone are in their natural position, and how readily they can be utilized for flagstones such as we have in the Abbey : they might almost have been "made for the purpose."

II. HAM HILL STONE.

For those who built to the Glory of God, and in honour of our Lady, to whom their church was dedicated, no material other than the best available would serve : so they brought their stone for Sherborne Abbey from the quarry on the hill-top at Hamdon. There is no need to point out which it is, for the whole church, inside and out, from the pinnacles downward, is built of Ham Hill Stone. In colour, it is like old gold, wonderfully rich and warm ; and this, as is usual in Nature, is due to the iron in the stone which has stained it brown. In the Choir, and on the Tower piers, the iron colouring matter has been chemically altered by the heat of the great Fire which, in 1437, nearly consumed the east end of the church, and changed the original brown to a vivid pink colour.¹ The reddened wall is, as a friend described it, a sort of "fossilized quarrel," for the Fire which caused it was the outcome of a fracas between Monastery and Town, burnt into the stones.

On the whole, Ham Hill stone weathers well, but much better in plain ashlar work than when carved. Many of the joints in Bishop Roger's 12th century walls

1. The chemical change effected in the iron-oxide (limonite) is due, I believe, to the great heat from the Fire driving off the water which originally entered into combination with it. The difference in colour represents the chemical difference between the oxide of iron with, and the oxide of iron without, its originally combined water. A similar chemical change explains the difference in the colour of bricks, made from brown clay, after they have been burnt in the kiln.

are as close to-day as when his Norman masons left them. But in external work, the weather picks out the softer earthy layers, and that, together with the shelly texture of the stone, which causes it to chip when it is carved, hastens its decay. Look, for instance, at the Edwardian School Governors' Arms, carved on the outside of the Bow Chapel, and you will see that some are entirely defaced, and others now unrecognizable.

And, at the west-front, on the north side of the great doorway, there is a small Calvary—the most religious, and significant detail in the whole Abbey. It may not always have occupied that position : but there it is : and wind and rain from the south-west have dealt so unkindly with the little group of silent Figures that the Ham Hill Stone, in which they are carved, is eroded, now almost beyond preservation.¹

And, while looking at the west Front, you must not miss the geological interest of what is probably the most venerable feature in the whole Building—the so-called “St. Aldhelm's Doorway.” It is walled-up, behind the low railing, in the far north corner, and is only visible on the outside of the church. I wish we could see what it is like on the inside—but, at present, the inner wall is covered with plaster. Dr. G. F. Browne, Bishop of Bristol, a learned historian, thought this doorway was built of Bath Stone, from Bradford-on-Avon, in his own diocese. Wildman, our Sherborne historian, jealous for Sherborne's honour, said the Bishop was wrong, for the stone came from the Bristol Road Quarries here. But both were mistaken : the doorway is built of Ham Hill Stone, though not the kind in general use. The bottom bed of Ham Hill Stone is a *grey* limestone, the best quality of all, some 8 ft. thick ; and St. Aldhelm's Doorway is built of that. Only a few yards south, you will see two buttresses of the later 15th century work, one each side of the West Door, which are both of the *brown* kind of Ham Hill Stone. Close beside them, are two Responds, or half-pillars, attached to the west wall of the Abbey, which formed part of All Hallows' Parish Church—and they are of the *grey* kind of Ham Hill Stone. If you will compare the stone of which these Responds are built

1. This Calvary is figured, under *Rood*, in Parker's *Glossary of Architecture*.

with that of St. Aldhelm's Doorway, you will see they are the same. Personally, I cannot believe the old Doorway is nearly as old as St. Aldhelm's time, though it may be a relic of pre-conquest days. His rule at Sherborne was a very brief one (A.D. 705-709), and the church he built here would be of a very elementary type.

There are two other examples of the use of Ham Hill Stone in the Abbey which, though not structural, are worth recording.

One, is the large stone coffin on the floor at the east end of the Choir aisle. The surface is so corroded that (without chipping a piece off!) it is next to impossible to identify the stone. Moreover the coffin is not all of one piece, and may not therefore be all of the same kind of stone. But there is just sufficient of the grain exposed along the edge of the raised sides, at the narrower end, to show that that part at any rate is Ham Hill, whatever the rest may be.

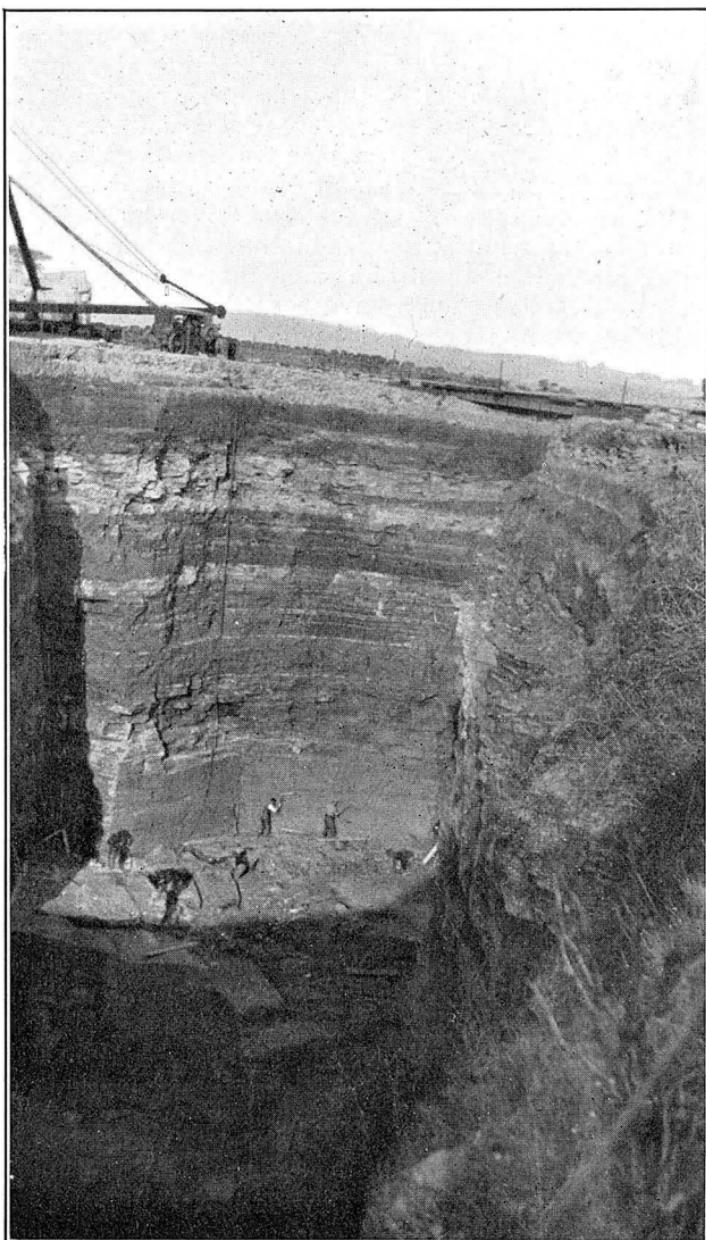
The other example is the upper part, or bowl, of the old Font now standing in the Children's Corner. It bears, on either side, the scars where the fastenings of the cover fitted into the stone. As Bishop Poore, about 1217, made it a Rule for the whole Diocese that Fonts should be fitted with a secure cover, it is just possible we can date these old scars pretty accurately. The bowl is hexagonal, and perfectly plain, without any architectural detail that might help to fix its date, but it may well be Norman. Is it, as Mr. Burt has suggested, the bowl of the Font which belonged originally to the Abbey Church, in which the Bishop insisted that the Town's People's children should be baptized?

The lower part, or base, of the Font, is Purbeck Marble—so the two halves clearly did not always belong to one another. Is this lower part a relic of the All Hallows' Font which was set-up, without due Ecclesiastical Authority, against the older one in the Abbey Church, and which Bishop Neville, in 1437, ordered to be removed? I suppose we shall never know: but the trefoil-headed panelling, though not very distinctive, is a form of ornamentation found, I believe, on Fonts of the late 14th, or early 15th century, a date which fits in with the historical requirements, and

when citizen Walter Gallor exceeded the Bishop's orders by wilfully defacing the All Hallows' Font, it would be the bowl, rather than the base, that suffered. If we have here parts of the two Fonts united in one, then indeed this old relic symbolizes the restoration of the harmony it once itself unhappily destroyed. The geological evidence as to the two different kinds of stone, so far as it goes, lends fresh support to Mr. Burt's idea. It is a sad reflection, that a thing of such historical interest should have been dethroned from its rightful place by the modern Font, which is now, alas !, the first object to catch one's eye on entering the church.

One of the many lasting pleasures that came to me in preparing this Lecture was a long day spent on Hamdon, in early Spring, whither I went to get photographs to illustrate this Lecture. The air on the hill-top is "worth 6d. a pint," as Tennyson said of the air on the Downs at Freshwater. And the view over the Vale of Somerset, to the Quantock and Brendon Hills, is magnificent. In late summer, the grass is full of those grey-green orchids, Lady's Tresses, which have a scent like Lily-of-the-Valley.

Ham Hill is one of the many bold headlands forming part of the high, irregular escarpment which winds above the floor of the Somerset plain from Corton, by Sherborne Golf Links and Babylon Hill, to Odcombe and Montacute. This high ground is formed of massive beds of sand, and Sand Rock, some 200 ft. thick at Yeovil where it is most fully developed. For that reason these beds are known to geologists as the Yeovil Sands. Between North Perrott and Stoford, there is a most interesting local development of limestone in these sands, thickest at Ham Hill, and dwindling to some 2 ft. only at Stoford. Ham Hill limestone is composed almost entirely of myriads of fragments of broken sea-shells, such as one occasionally meets with on a modern sea beach. We may imagine, in trying to account for this isolated mass of limestone, a shell-bank on a sandy beach, with a shallow sea of clear water continually breaking upon it, whose waves pounded the shells to fragments—and whose many cross currents, deflected by the shelving beach, sorted the shell fragments into layers set at different angles. This



Quarry on Ham Hill, Somerset. (Upper Lias).

Sherborne Abbey was built in Norman, and re-built in
Tudor times, of this limestone.

“current-bedding”, as it is called, is characteristic of shallow-water formations on a shelving shore. You may see examples of it engrained in many of the stones in Sherborne Abbey. The iron has concentrated along the bedding planes, or layers in the stone, and made them more evident by staining them a deeper brown. But instead of all being horizontal, and therefore parallel to one another, a group of them will run at one angle on one half of the stone, and another group at another angle on the other half.

The ground on the top of Hamdon is pitted all over, far and near, like a modern shell-holed battlefield, with innumerable old surface quarryings—for the stone has been worked extensively since Roman times.

The great quarry in the illustration is some 70 ft. deep—and the men, down there, with their strange primitive-looking picks, look like gnomes at work. To disengage a block of stone they pick, or drill, a row of perforations through the bed, like the perforations in a sheet of stamps, along which the stone can be detached with the help of a chisel. There are 45 ft. of Yeovil Sands, which the men call “Ochre,” in the upper part of the quarry; then 3 ft. of what they call “scrap,” which is stone only fit for rough walling; and then 20 ft. of the brown Ham Hill Stone, like that of which the Abbey is built. But for all its depth, the bottom bed of the grey Ham stone, from which St. Aldhelm’s Doorway came, has not yet been reached in this quarry, though I believe they intend to go down to it.

III. SHERBORNE BUILDING STONE.

There are two archways in the church, of the late 15th or early 16th century, which have puzzled me a good deal, and still do so. They are built of a stone unlike any other in the Abbey—in fact they are the one exception to the mediæval builders’ rule of never employing anything but Ham Stone for all constructive work in the Abbey. One of these Archways leads from the South Transept into the Chapel of the Holy Sepulchre, and the other forms the entrance from the South Aisle of the Nave into the St. Catherine’s Chapel. The curious thing about them is that whilst the builders used Ham Stone for certain members of these archways, the main body of them is built of a fine-grained and

nearly white limestone, not unlike Caen Stone in general appearance. My reason for mentioning them here, rather than elsewhere, is that although I do not recognize the material of which they are built as from any of the beds of Sherborne Building Stone known to me, I think it must be one of the many varieties of limestone belonging to the same Geological Series. From the similarity of the stone, and its unique occurrence in these two archways, as well as from the fact that they are of the same architectural style, one would think they must be contemporary : but Wildman seems to have had grounds for thinking otherwise.

On the suppression of the Monastery in 1539, a good deal of local stone, from the quarries in Sherborne itself, was used, for the first time apparently, to make the necessary repairs to the walls of the church caused by the pulling-down of the adjoining monastic buildings. There is very little, if any, to be seen in the interior, for this was but little affected, structurally, by the changes of the 16th century : but many examples of it occur in the external walls.

On the north side of the church, when the Monks' Dormitory, and other Conventual Buildings which stood there were removed, extensive repairs were necessary : and all these were carried out in Sherborne Building Stone. Looking up to the high gabled end of the North Transept, with its blank, truncated wall, as seen from the Headmaster's private drive in Bell Court, one sees how the Ham Stone has been almost entirely replaced by Sherborne Building Stone ; and the same is true of the north wall of Bishop Roger's chapel adjoining : the flat Norman buttresses, and string-course, are the only Ham Stone details left.

On the south side of the church, Sherborne Building Stone has been introduced freely to patch and restore the walls and buttresses. The upper courses of masonry above the great Perpendicular window, and quite a considerable part of the two buttresses, are of local stone ; and also much of the external wall of St. Catherine's Chapel, and the small buttress at its south-western angle.

The west end, which must originally have been built entirely of Ham Hill Stone, has, since the removal of All Hallows' church, been restored, probably many

times, with Sherborne Building Stone—indeed there is very little of the original surface left. And part, at least, of All Hallows' itself, to judge from what is left of the north wall, and from the two outer responds attached to the west front of the Abbey church, was also built of local stone from Sherborne quarries.

And, again, at the east end of the church, the outer wall of the restored Lady Chapel is built of Sherborne Building Stone of a very fine quality, though the quoins, or angle-stones, are Ham Hill. I think it is probable that the local stone in this instance, previous to its present use, formed part of the post-Reformation house, built on the site of the original 13th century Lady Chapel, and occupied for a long time by successive Headmasters of Sherborne School.

So, all together, Sherborne Building Stone now plays a very considerable, if subsidiary part, in the fabric of the Abbey church.

The whole of the hill-side which slopes upward to the sky-line north of the town, is formed of successive beds of limestone, and the Sherborne Building Stone is one of the Top Beds. It is generally of a light fawn, or biscuit colour, paler than the limestone from Hamdon, but just as beautiful in its own way. Some of the softer beds, mellowed by time and exposure, weather into those gentle and rounded contours which make the old walls in Sherborne, with their Valerian, Mother-of-Thousands, and Pennywort, so restful and pleasant to live with. They belong, like the deserted quarries from which they came, to another age, when the cost of labour was of no account—symbols of the aristocracy of an old Cathedral town, to which they still lend distinction. Nor would you easily find grander building material anywhere than that which comes from the more massive beds, such as you may see, for example, in the wall on the north side of Finger Lane. The local Builders call this the "Gooseberry Bed," because it contains so many round fossils (*Sphaeriodothyris sphaeroidalis*), the size and shape of gooseberries.

Our brown Sherborne limestone differs in colour from the older grey one at Keinton simply because the sediments of that very ancient sea in which both were originally deposited changed their nature and colour



The Redhole Lane Quarry, Sherborne. (Inferior Oolite).

Sherborne itself is largely built, and the Abbey walls extensively repaired,
with this local limestone.

from time to time—just as marine sediments do to-day. The waters of the Jurassic Sea had become both clearer and shallower than they were in “Keinton days” by the time the Sherborne Building Stone was laid down on the sea bottom in its virgin state as soft limy mud : in fact, there were times when the water became so shallow in certain areas that the actual bed of the old sea was exposed “for a while.” That the water swarmed with marine life of almost endless variety is proved by the amazing wealth of fossils to be found in Sherborne quarries—a wealth which has made the Limestone hereabouts famous amongst geologists all the world over.

Nature has done much to help the Sherborne builders to get at the best beds of the local Building Stone. For at Coombe, whence most of the Sherborne Building Stone has come, several Dry Valleys converge, and these, in the course of their formation, have cut down through the best beds of stone, and left the eroded ends exposed on both sides of these valleys. I can think of five or six quarries, in and about Coombe, all of which are excavated on the open side of a valley, so that no preliminary vertical digging was first necessary in order to reach the stone.

Nor is this the only service Nature has done for the Sherborne Builders. The Dry Valley which extends from near the Bristol Road to Nether Coombe falls some 150 feet before it joins the Sandford Lane valley near the Mission Church. On one side of this valley a continuous quarry-face extends, over a quarter of a mile long ; and, on the other side, is the Redhole Lane Quarry, and its considerable southward extensions. Now, had the Sherborne Building Stone lain in *horizontal* beds, it might have been found workably near the surface either at the top or at the bottom end of the sloping valley, but it certainly could not have been found so at both. As it is, the same bed is exposed all the way down, at much the same surface level, for it has been tilted, since it was laid down, at the same angle as that at which the valley slopes : consequently, it occupies almost exactly the same position in the upper quarry, at the head of the valley, as it does in the lower one down in Coombe.

Isaiah's words, in their literal sense, “Look unto

the Rock whence ye were hewn, and to the hole of the pit whence ye were digged," might well be writ large, for Sherborne People to read, over the Redhole Lane Quarry, for the greater part of old Sherborne must have come out of it. Nowhere will you see the Sherborne Building Stone more magnificently displayed than in the bottom 20 feet of this fine old quarry.

No doubt a good deal of the mortar (not by any means the least important part of the Building) which the mediæval masons spread between the stones when the Abbey walls were rising, came from lime burnt in Sherborne kilns long ago. There is one such kiln outside the Redhole Lane Quarry, and another down in Coombe, for the best limestone for burning came from the few feet of the "Rubbly Beds" which lie immediately above the Building Stone. But neither farmers nor builders use lime nowadays as they used to do, and the local kilns are all derelict in consequence.

IV. FOREST MARBLE.

Two miles east of Sherborne there stands a curiously isolated hill of great geological interest, which, though so near the town, is wonderfully withdrawn, and little known: moreover, it can only be approached by jealously guarded private roads. I mean Highmore's Hill, near Crackmore. It is the centre of a very lovely, and peaceful scene. The name might well be descriptive, but it is spelt with an apostrophe, Highmore's, as though it had once belonged to someone of that name. And this is the more likely, though I can find out nothing certain, since the Highmores once lived in these parts.¹

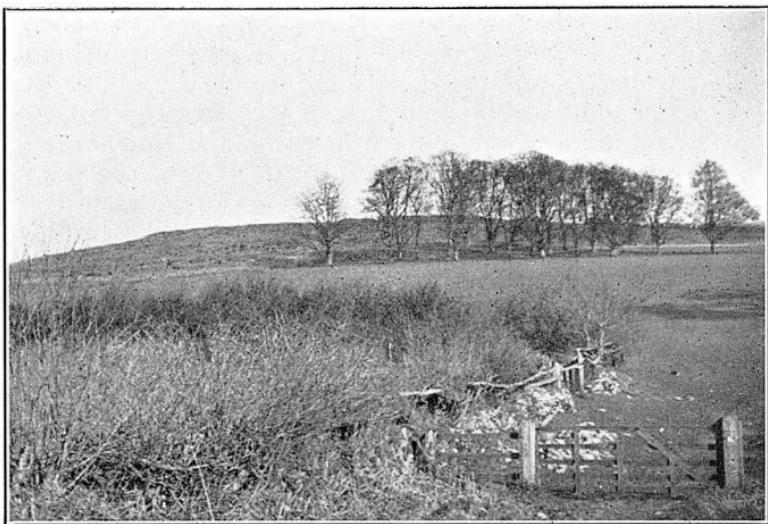
But however the hill came by its name, the fact remains that it has made its contribution to the Building of Sherborne Abbey, and to its adornment. For when

1. Nathaniel Highmore, M.D. (1613-1685), who seems perhaps the most likely member of that Family, was a distinguished Surgeon, whose father was Rector of Purse Caundle. He practised for many years in Sherborne, and was a benefactor both to the School here and to the Town. He was a friend of Harvey, the discoverer of the circulation of the blood, whom he met first at Oxford when he was in residence, whither Harvey came with the King, after Edgehill. He died at Sherborne, and was buried on the south side of the chancel in the little church his father had served at Purse Caundle.

Edward Harston was Vicar of Sherborne (1854-1868), the Choir, and its aisles and chapels, were restored (1856-1858), and a good deal of marble, as he tells us, was brought from Highmore's Hill for the service of the Choir and Sanctuary. The broad steps that lead up into the Choir from the Nave, with the low stone wall and its moulded coping at the head of them, and the Reader's stage at the Lectern, as also the step at the Communion Rail and those which lead up to the Altar, date from the time of Harston's Restoration work : and they are all of Forest Marble from Highmore's Hill. The Choir-stalls also were at the same time raised, and mounted upon a base of the same Marble, but this has been recently removed, with great benefit to the simplicity and proportions of the east end of the church.

On the top of Highmore's Hill you can see the grass-grown heaps and hollows which mark the site of the old quarry from which this particular Forest Marble came. Like the Ham Hill Stone, the bulk of the Marble is formed of masses of broken shells, for it, too, is a shallow-water formation. And, on the surface of some of the beds, there are fossilised ripple-marks and sun-cracks, formed by the wind, and sunshine, many millions of years ago, when what is now hard rock was the soft sediment that lay on the shore, between the tides, of those far-away days. It gives one plenty to think about, when looking at the Forest Marble in the Abbey Church.

In Bishop Roger's chapel there is another example of the use of Forest Marble in the Abbey which, so far as I know, is unique. The 13th century window, with triple lights, is ornamented in the usual style of the period with marble angle-shafts. Hutchins and Harston both took these, as anyone might have done who knows anything of Early English architecture, to be of Purbeck Marble. But, with the help of a ladder, a sponge and some water, their true nature was revealed. They are of Forest Marble ; and I hazard a guess that the stone came from Highmore's Hill. It is very dark, almost black, which is not its natural colour, so that it must have been artificially darkened, whether intentionally or not, in the process of polishing. The surface of the marble is figured with the white outlines of fossil oyster



Highmore's Hill, Sherborne. (Outlier of Forest Marble).

The steps to the Choir and Altar, and the window-shafts in Bp. Roger's Chapel,
are made of marble from a quarry on the top of this hill.

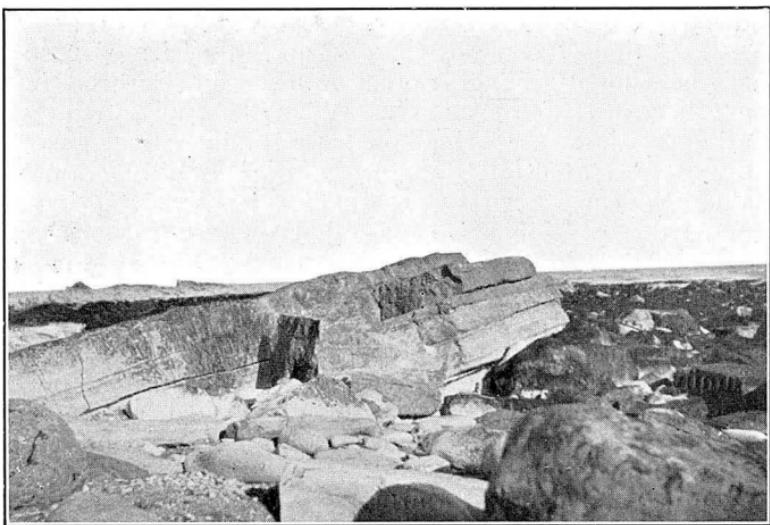
shells,¹ similar to those you may see in numbers on the polished surface of the moulded coping of the low wall near the pulpit steps. I cannot help thinking that these Forest Marble shafts have, at some time, replaced earlier ones of Purbeck Marble—but, if so, there is no record of the fact.

Curiously enough, there is an authenticated case of the substitution of Forest Marble for Purbeck in another part of the church. When the Lady Chapel, at one time the Headmaster's dining-room, was recently restored (1921-1926), the original 13th century Purbeck Marble shafts were found to be either missing, or so decayed—all save one—that they were replaced by shafts of Forest Marble. But, by that time, the Highmore's Hill quarry had long been abandoned, and it would have been a very costly matter to re-open it, and make up the road to it again. Yet the Digby family, who have always been most generous benefactors of Sherborne Abbey, wished that the required marble should come, like that on Highmore's Hill, from their own estate. And so it was that, eventually, the Forest Marble for the adornment of the restored Lady Chapel came from their quarry on Lillington Hill.

V. PURBECK MARBLE.

The one and only surviving marble shaft of the 13th century is quite easily distinguished from all the others in the Lady Chapel. It stands near the entrance, the foremost shaft of the group on the south side; and, unlike the others, it is all of one piece, a monolith of Purbeck Marble, 9 feet long. It must not be supposed that this length bears any relation to the thickness of the bed of marble from which it was quarried, for that was only a matter of some nine inches. The stone was hewn in lengths, horizontally, with the bedding, and, when shaped and polished, the finished shafts were up-ended, so that the natural grain of the marble is now at right angles to the original plane in which it lay in the quarry. I have heard it suggested that this arrangement was adopted by the mediæval builders purposely,

1. These probably belong to the species *Ostrea (Liostrea) hebridica*, formerly known as *Ostrea sowerbyi*, which occurs in great abundance in the Forest Marble.



Purbeck Marble Bed, Peverill Point, Swanage.

A Freshwater limestone, beloved, for ornamental purposes,
by builders of 13th. century churches.

to increase the resistancy of the marble in supporting the weight it had to carry. That it may have had this effect is possible—I do not know—but it was not adopted for that reason, but because there was no other way of getting the length of marble required.

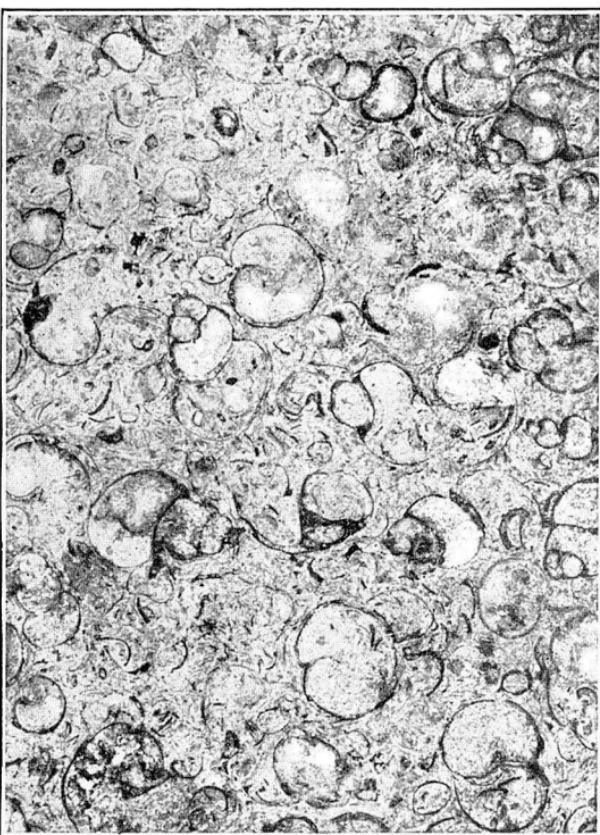
Besides this Early English shaft, there are the two very fine recumbent figures of early Abbots, and a portion of a third, in the Choir aisles—all of them of Purbeck Marble. Notice how beautifully the folds in their vestments fall, as though the marble had lost its rigidity under the sculptor's hand.

And, besides these reverent sleeping figures, the only other object of Purbeck Marble in the Abbey is the base of the old Font, already mentioned.¹

Purbeck, from whence this marble was brought to Sherborne 700 years ago, is a peninsular rather than an island. Like the Isle of Wight, to which it was once joined, the backbone of the Isle of Purbeck is formed by a high ridge of Chalk Down which extends from the sea near Swanage, on the east, to the sea near Kimmeridge, on the west.

North of the Chalk ridge lie rocks younger than it, clothed, characteristically, with heath and Scotch-fir trees. To the south, rocks older than the Chalk crop out from beneath it, and form the strip of country between the Downs and the sea. Parallel with the Downs, on the southern side, lies a narrow valley of Wealden Clay filled, for the most part, with oak trees : and from below this narrow belt of clay country rises, southward, a high bare ridge, formed by the Purbeck and Portland limestones, the crest of which looks out upon the Channel. The marble beds lie along the bottom of the Wealden Valley, on the south side, and their outcrop is marked, between Swanage and Kingston, by a succession of hollows and mounds, now covered with turf, where the marble was dug in mediæval times. My first sight of it was at Peverill Point, near Swanage, where the Purbeck Beds run out into the sea, and form the reef on which tradition says a Danish Fleet was wrecked in Alfred's day.

1. There are portions of three Purbeck Marble shafts against the low wall at the corner of the Digby Road and Cook's Lane: but they are too large in girth to have belonged to the Abbey Lady Chapel.



Polished Section of Purbeck Marble.

This limestone is almost entirely composed of the fossilized shells of the Freshwater snail, *Viviparus*.

No one, I suppose, could understand the joy I felt in finding the Purbeck Marble there, and hammering it in its natural bed. The sunshine was brilliant, and the waves were breaking upon the reef in a line of white foam close at hand : but it was not these things which were the centre of my happiness. Ever since I was a boy at school, Purbeck Marble has been a thing of strange romance, and deep significance to me. For, in the little Sussex church at Trotton, had I not come across the tomb of Sir Thomas Camoys, who led the left wing at Agincourt, and, for his bravery, was created Knight of the Garter? And did not he lie there, in his armour, a magnificent figure in brass, holding his Lady's hand with his own, from which he had withdrawn the gauntlet? And was not the top of his 15th century altar-tomb made of a great slab of what I afterwards learnt was Purbeck Marble, and which for its beauty I had never seen the like?

And my father explained to me (I have his letter, written more than fifty years ago, now) that this Purbeck Marble had a long story behind it : that it was formed in *fresh* water, unlike most other limestones, and he showed me that it was full of fresh-water snails, whose descendants live with us to-day.

I think it was the combination of antiquarian interest—my first brass—with the fascination of my father's account of the origin of this most royal specimen of Purbeck Marble—all glowing with the bloom and lustre of the 15th century polisher's loving handiwork—that made my first visit to Purbeck Island the other day something of the nature of a pilgrimage.

When our Sherborne rocks had been raised from the sea in which they had been laid-down, they became part of an old Continent. And, either in the delta of a great river which flowed across this Continent, or in a freshwater lake, the sediments were laid down which have since been changed by time and pressure into Purbeck Marble. The water must have swarmed with the tiny fresh water snail, *Viviparus*, for the marble is crowded with its shells.¹ If you want to see a particularly good specimen, look on the near margin of

1. The polished section of Purbeck Marble in the illustration is taken from Dr. North's book, *Limestones, etc.*, p. 15, already referred to. He very kindly lent me this block also.

the Abbot's tomb towards the east end of the north Choir aisle.

I came across some of the old Purbeck workings in an oak wood near Downshay which had long been filled with water and converted into a pond, and wondered whether by any possible chance the Viviparus of to-day haunted these marble basins hung round, as it were, with the Family portraits ! But it is not likely—for Viviparus has not been recorded for Dorset, though Dr. Lang of the British Museum found a young specimen in the Alluvium of the River Char at Charmouth. It likes deep water, or rather deep, so Mr. A. S. Kennard tells me, “and such a river as the Thames with its backs, and the sluggish east country rivers, just suit it.”

By far the most historically interesting of all the sites of the old marble workings that I saw was at Downshay, the site of the seat of the old Matravers Family, near Langton Matravers. For it was from the quarry there, as Canon Fletcher tells us¹, that, in 1220, Alice de Briwere, Lady of the Manor of Worth Matravers, gave all the marble, for twelve years², for the Cathedral church that Bishop Poore was then building at Salisbury :—where you may see it to-day. For her munificence, she was long remembered before God by name, with other Benefactors of the Cathedral, for [*orate*] *pro Alys soule Brewer* occurs, Canon Fletcher tells me, in a 15th century M.S. copy of the Bidding Prayer, now preserved in the Cathedral Library.

There is still an Order of Marblers in the Isle of Purbeck, successor to the mediaeval Guild, who hold their annual meeting, on Shrove Tuesday, at Corfe, and elect their two wardens for the ensuing year. But the marble trade has quite gone, and the present members are not really “marblers” therefore, but men who quarry the Purbeck building-stone. A copy of the Articles of the Ancient Order, written on a large skin of parchment, and dated 1551, was shown to me by the

1. *The Story of Salisbury Cathedral* (Raphael Tuck & Sons, 1933), page 32.

2. MS 148, fol. 15. See also, (amongst Cathedral Muniments), *Obit Kalendar of Cathedral Church* (late 14th century MS), under August 18th, “Alicia Bruer dedit totum marmor pro ista ecclesia pro xij annis.”

present wardens. If, as is likely, there were earlier copies, they perished probably in the Fire that burnt down Corfe Castle. The name of one of the present wardens, Chinchen, I noticed amongst the 16th century signatures at the foot of the Articles, showing how the trade of "marbling" became hereditary, handed on from father to son for generations. And, more interesting still, many of the signatories had added, beside their names, their mason marks, like those you may see scratched upon many of the old stones in Sherborne Abbey.

VI. TUFA.

The chief glory of the Abbey church is the fan-tracery of the stone vaulted roofs in the Choir and Nave. Wildman believed they had no rival. If not the finest, they are one of the finest examples of the 15th century Architect's skill and art in combining strength, and its distribution, with almost gossamer-like grace and delicacy. Moreover, they belong to a style of architecture essentially English. Harston tells us, in the 1st edition of his *Handbook to the Abbey Church of St. Mary, Sherborne* (1858) that for the original stone vaulting between the Ham stone ribs of the fan-tracery, a curious fresh-water limestone, called tufa, or travertine, was used. Later editions of his book were abridged, and this particularly interesting piece of information was left out, so our knowledge hangs upon a very slender thread. However, Harston was himself Vicar of Sherborne at the time (1856-1858) when the Choir was restored, so his information is first-hand, and thoroughly reliable. The passage is sufficiently important to be given here in his own words. Referring to the Choir roof, he writes "The panels were filled in (it is not certain whether for lightness or economy) with tufa, which, however, has now been replaced by Ham stone, as in the nave." So far as I know, the only visible piece of tufa left in the Abbey to-day is a block which Mr. Burt has preserved amongst his treasures at the east end of the north Choir aisle. Those who do not know what tufa is like might well examine this piece of it, for it is quite unlike other kinds of building-stone, and was formed in a curious way of its own, about which I will say something presently. Though all the

tufa has now disappeared from the Abbey, Sherborne builders come across odd pieces of it built into the walls of old houses in the town. They call it "French pummy"—and they say it came from the old castle. Of course, tufa is not the same as pumice-stone—for that is a volcanic lava, but it resembles it superficially in being full of holes, like a piece of sponge. These odd blocks from the old houses may very well have come from the Castle ruins, for Bishop Roger, who built the Castle in the 12th century, knew well the excellencies of tufa, and used it for the undercroft of his domestic chapel. There you may see it to-day (and it is worth going to see), much of it still in its original position, and still in good preservation, and some is lying in heaps on the ground amongst the ruins. When the old Castle was "slighted" by Cromwell's orders, a good deal of building material, including tufa no doubt, was scattered about and used again in Sherborne.

I have given you the facts, so far as I have been able to learn them, and now I should like to try to piece them together into a more or less continuous story, though what I write may be little better than conjecture.

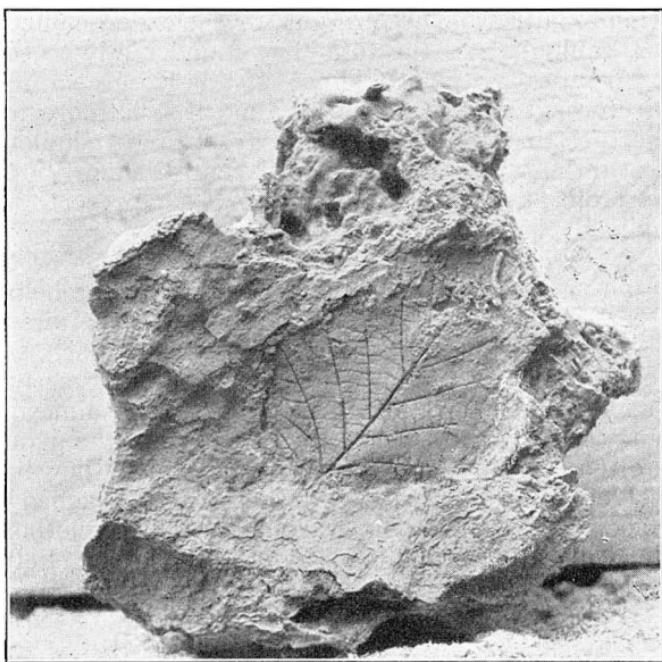
Tradition very often preserves historical truth—and I will begin by suggesting that the Sherborne builders' name for tufa, "French pummy," may preserve for us the source from which Bishop Roger derived it. Of course he need not have gone so far as France for his tufa : he might have found some within a walk of Sherborne, as I will tell persistently. And even if the supply hereabouts had not been sufficient for his needs, or he had not known of its existence so near at hand, he could have obtained it from Dursley in Gloucestershire, or from several other limestone districts in England. Still, the character of the Castle tufa is distinctive; and Bishop Roger's home, remember, was at Caen, in Normandy ; and since Caen stone in very large quantities came across the Channel in his time for the churches that were being built everywhere, up and down England, why not tufa, from the rich deposits in the Seine valley?

But, wherever Bishop Roger obtained his tufa, I should have expected he would have used it for the Norman vaulting in his new church, as well as for

the undercroft of his private chapel in the Castle—for we may presume he was engaged on both these great works at one and the same time. And, if so, I will venture on a further conjecture—namely, that the 15th century builders who demolished Bishop Roger's Norman Cathedral, used again for their Perpendicular stone vaulted roofs the tufa they found ready to their hand from the earlier Building. If this is only so much conjecture, it can do no harm; and if it is more than conjecture, it may explain the extraordinary similarity between the type of tufa you will see in Bishop Roger's undercroft at the Castle, and the block preserved so happily by Mr. Burt.

Wherever there is limestone and running water, you may look to find tufa. For water, with the help of the carbon dioxide which it picks up from the air and soil, dissolves limestone; and then, when it parts with its carbon dioxide again, it redeposits the lime as tufa, or some allied form of it. Springs, in a limestone country such as ours, when they issue from the ground are often heavily charged with lime which they have dissolved out of the rock before their waters reached the surface. And just as lime from our hard Sherborne water will gather round the gadget in the kitchen kettle, put there for the purpose, so the lime in the water of one of these springs will gather round sticks, or leaves, or snail-shells, and cover them with a hard coat of tufa. And the reason why tufa is so full of sponge-like holes and cavities, is, because the sticks and other things round which it has formed, decay after a time, and leave only tube-like cavities and holes, or impressions, behind. Tufa is of all ages, so that the snail-shells it has enveloped may be millions of years old, or only recently extinct forms, or even of the existing kind you find in your garden to-day.

Most of the tufa round Sherborne is in quite small quantities, but there is a stream in the Park which, after draining a very lovely piece of limestone country, has deposited, over only a short portion of its course, more than thirty thick and wide ledges of tufa, extending from one bank to the other across the stream; and these ledges, which represent many tons of solid rock, are all comparatively recent, and still in process of formation. At the surface, the tufa is soft, and could



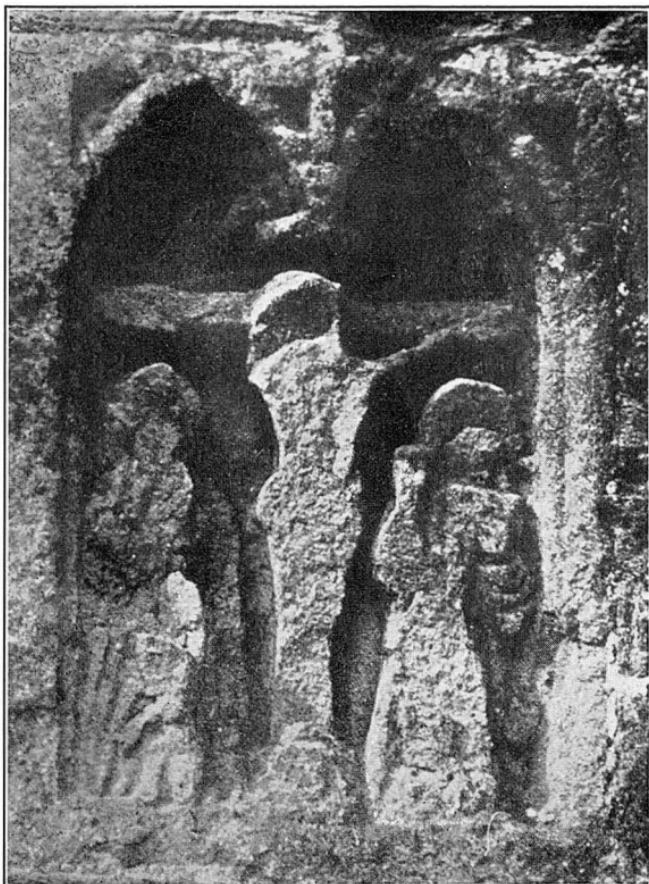
Impression of Hazel leaf in Tufa, Patson Hill, Sherborne.

Being both light and tough, this curious limestone was used by mediæval builders for their stone vaulted roofs.

be dug with a spade : but lower down it is a tough and intractable limestone, and, no doubt, full of recently living organisms. All this mass of tufa represents limestone which the stream has robbed from the rocks from which it issued, and over which it has wandered, redeposited in an altered form farther down its course. If it were permissible, I should like to describe tufa as a parasite amongst rocks, for it feeds on the solid limestone, and grows at its expense.

On Patson Hill, overlooking Sandford Orcas, there is a spring which issues from the limestone escarpment there and sends out a tributary to the little stream that has formed the valley in which Sandford Orcas lies. Someone had thrown some pieces of rock into the mud to form stepping-stones down to the water, which I recognized as being tufa. And on turning one over, I was delighted to see the impression of a hazel-leaf on the surface—a leaf that had floated down from the nut-trees which overhang the stream. The tufa was soft enough when the leaf fell upon it to reproduce faithfully every vein in its delicate structure : but, now, it is a piece of hard rock, like the limestone in the hill-side from which it derived its substance. I owe the excellent photograph of this impression to Mr. C. H. Green's kindness and skill. No doubt, if we could have searched amongst the blocks of tufa that once formed part of the Abbey roof, we should have found numbers of such life-like impressions : they are certainly to be found on the tufa from the undercroft of Bishop Roger's chapel at the Castle, for I have seen them there.

The Abbey is now an ancient Building, as we reckon time : and St. Aldhelm, or Bishop Roger, seem to us remote and shadowy figures of mediæval days : but the *whole* of human history is but “as the twinkling of an eye” when considered against the background of geological time. There must have elapsed, according to the most recent calculations, an unthinkable number of millions of years between the time when the Keinton slabs on the floor of the Lady Chapel were marine sediments in a Jurassic sea, and the time when the tufa in the Abbey roofs was secreted from running limestone-water.



Calvary—at the West Doorway of the Abbey church.

The weather has eroded the Ham Stone in which this exquisite detail was carved.
(See page 9).