

## Maidstone Museum

### Benjamin Harrison Archive

#### Volume 5

[This is the second volume of Benjamin Harrison's Notebooks, held in Maidstone Museum. It dates from between 1884-1887, as noted on the right-hand corner of the first page. Typically for BH, this information is inscribed on postage stamp sheet edging, stuck on the top, right-hand corner of the opening page. The period covered here was one during which the hunt for eoliths in Kent, and their significance as possible markers of human antiquity, assumed an ever greater importance for BH. It occupied increasing amounts of his time, both spare time and that during which he should have been fruitfully occupied as the village grocer.]

Unnumbered Green board page: citation from p. 31 of Professor Rupert Jones' book 'The Antiquity of Man'. This piece deals with Tertiary quartzite pebbles in the hills bordering the Thames Valley around Oxford. In it, Jones notes that these pebbles originated from Llandovery Quartzite from the area around Birmingham. Attached on the opposite side, is the card of the Rev. Richard Kerr.

P1. *Geological Notes*. Bank Holiday, Sunday, 1884. BH took the train to Swanley and walked, via Well Hill, to Shoreham where he lunched with the Prestwich's. He described the geology of a section due south of Swanley station, as being composed of glacial gravel overlying 2.1/2 feet of clay, which, in turn rested on Thanet Sands. He observed no flints in the section but noted that a number of white flints had been thrown out from the trench, which puzzled him and he sought out the workmen for an explanation. He surmised that the white flints were the old road foundation and that they came from Maplescombe. He remarked that this spread, containing as it did hard chalk lumps, was, as also observed by (Dr.) Whitaker, 'an unlikely mixture'.

Fortified by lunch at the Prestwich's, BH determined to walk home over the hills describing the landscape through which he passed, including that of a tarn, which contained plants new to him, and a spring east of Skid Hill with an interesting course of waste deposit. No chert was found at Well Hill. Prestwich maintained that chert was to be found nearby at

Colegate Farm tunnel shaft. BH reached home 'after this long walk unpushed and as if only 25' (he was 47 at the time).

Thursday August 28<sup>th</sup> 1884. BH took the first train to Barming, in the company of Bultain and Bourne, who were on their way to Ham Street Fair. It rained heavily and BH became so 'sclirated' (a 19<sup>th</sup> century term for soaking wet) that he was not able to examine the Barming Heath gravels to his satisfaction. He did however, manage to track it for some way and, on a field above the *Hermitage*<sup>1</sup> found 3/4 of a Neolithic arrowhead. He had more luck in the East Malling bed where he found what he thought was a Palaeolithic flake.

P.2. At East Malling a further interesting find of a large quartz pebble weighing 2.1/2 pounds is recorded. The flake found here was sent to Mr. Spurrell for an opinion. The location of the find was enclosed in an envelope to be opened only after Spurrell's opinion on the flake had been given.

'Belvidere' (BHs spelling, i.e. Belvedere) August 29<sup>th</sup> 1884. The response from Spurrell suggested that this was the remains of a Paleolithic flake, once rather larger. The secondary working was noted as being unworn or weathered, suggesting it was found from an in-situ surface where it had been used. There is a tracing of the flake, by BH, showing both the then dimensions and those of the original flake. Spurrell went on to remark on the commonplace nature of flakes such as this, though he noted that the quartzite find was 'admirable'.

October 12<sup>th</sup>. BH took the train to Shoreham where he met his good friend Loveland. They made their way to Professor Prestwich's house from where they went to Dunton Green. On this leg of their journey they were afforded 'a capital peek' at the past when they saw a part of the embankment just excavated by workmen and in which BH observed ragstone, the Folkestone beds and a patch of worn chert, ironstone and red earth.

October 16<sup>th</sup>. BH rode to Seal with Mr. Dight where the gravel section in the park was examined revealing chert, ironstone but no flint.

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<sup>1</sup> There is still a considerable quantity of Neolithic stone tools, as well as some Bronze Age material, to be found on this field, which is in close proximity to two springs and commands good views of the North Downs, on the slopes of which the remains of Kits Coty and the other Eastern Megalithic monuments are to be found.

P.3. The account of the above trip continues. BH notes the stained, yellow nature of the chert at this location. His experience of this phenomenon suggests a correlation between this type of chert and ancient stone tools<sup>2</sup>. BH suggests that such material derives from similar drift beds, though from a higher level. From there BH and Loveland crossed Childs Bridge and observed, in a recently excavated trench, more chert, ironstone, some flint and ragstone. They saw no debris in the stream but noted more chert and ironstone to the west of the village. BH remarks on the presence of blackened stones and grit, similar to that seen in the gravel base in Barming, in the Child's Bridge section. Pencil-written note about examination of the Malling and North Pole area<sup>3</sup> to the spur where the Malling flake was found.

Limpsfield October 23<sup>rd</sup> 1884. 7.30 train. BH arrived at Limpsfield, requiring three train changes to do so. Flints, Tertiary pebbles and some quartzite pebbles noted on summit, 'directly on [the] water parting'. Notes the similarity of this drift geology to that of Bout's Hole field spread, near Ash, and the similarity of a block of grit to Oldbury stone. Made his way to Mr Bell's in the Manor House, who was engaged, so arranged to call back at 11. Headed off via the churchyard, to the Gault valley (the Holmesdale valley) where he noted the slopes were of sharper angles than those closer to home. At the water parting he turned due south, returning to the unwashed spread he had examined earlier where he was rewarded with finds of a quartzite pebble and an unfinished Palaeolithic stone tool. He again called on Mr Bell, in whose home he inspected the collection of five or six Palaeoliths. Both men puzzled by their quartzite pebble finds.

P.4. Entry from previous page continues. BH made a geological comparison between Bell's area and the edge of the escarpment above Watlington. Bell's collection judged to be good by BH, who noted the absence of tanged arrowheads and the inclusion of one Neolithic Celt, found in-situ, which he thought was 'an interesting specimen' Walked to Riverhead then got a lift home via Otford and Kemsing, observing the geology all the way.

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<sup>2</sup> Maidstone Museum has at least one example of a Middle Palaeolithic yellow chert stone tool in the Harrison collection.

<sup>3</sup> North Pole Road runs parallel to the Medway, though removed from it by some considerable distance, between Heath Road at Barming and the East Malling/Teston/Watlington Road just north of The North Pole public house.

Sunday October 26<sup>th</sup>. Mr Druery visited.<sup>4</sup> BH walked in the company of Mr. Druery to Claygate, Winfield Hill, Sheet Hill and Buley where he examined the 'trail section'. Spent the evening examining his neoliths with the aid of a magnifying glass.

November 12<sup>th</sup> 1884. BH took the 8.33 train to Limpsfield in the company of Mr Bevington. They noted the presence of chert near Dry Hill Farm. Also mentions seeing the 'immense root stalk' of *Begonia dicica*. Drove up the hill above Sundridge but saw no sections of old gravel. At Manor House they turned left where they found Tertiary pebbles and flint. Several Palaeolithic flakes found around this location. Called on Bell and examined his collection, including his recent acquisitions, which included an ogee curved implement, also found on the same spread. Some gossip exchanged about the over-strict Squire and his son. Called on Mr Knight at 6pm, arrived home by 9. In Pencil: 'Limpsfield see next page'.

P.5. BH walked to Knockmill gravel bed, via (Y)Aldham and Birches (Wood) on Wednesday 19<sup>th</sup> November 1884. At Birches he found a deep section almost exclusively made up of small pebbles. Describes a mound that he thought might be a tumulus.

On Sunday November 23<sup>rd</sup>, BH in the company of Horace Beale, went via the Basted Valley to Broadfield. At Sheet Hill they looked at the remains of a house burned down the previous night. At Broadfield they found a field, on the right of a house on Old Lane, a spread of stained flint. In a hop garden, which he noted was above 380 feet OD, they observed white stained flint and some Tertiary pebbles which continued up the unwasted ridge, with outliers having deposits of white angular flint. Above the Old Soar, they counted as many as forty pieces of white flint and one white flint flake. Describes the day as 'most refreshing and health giving.'

Cites George Elliot's excellent opinion of Limpsfield ... 'her idea of an Earthly Paradise...' in *The Times Review* 1885.

February 8<sup>th</sup> 1885. Message from Evans to let BH know he had recently steam ploughed the Bitchet field. BH resolved to search next day, but as it was very wet read the *Cornhill Magazine* instead. Resolved to search

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<sup>4</sup> Mr. Druery was a much-published fern hunter from Acton (London W3) whom BH often accompanied in and around Ightham in search of rare fern specimens.

for Grant Allen's Museum, which must have involved an outing on which he found a flint tip in ... [name unclear AM]. Rough sketch of same.

P.6. Entry from previous page continues. Also found a Palaeolithic side scraper and a Tertiary pebble. The implements sent to Grant Allen. BH noted that 'the tip' looked like the weathered chert found in that particular bed.

Thursday February 12<sup>th</sup>, 1885. BH took the first train to Limpsfield. Noted that he had a letter from Grant Allen. Changed train several times, finally reaching Westerham at 08.30. Took a fly from Hold to Worms Heath. The landlord of the Railway Hotel drove the fly and regaled BH with his life's experiences in Africa as valet in the service of the son of the earl of Devon. This involved Jews, with whom there appears to have been a confrontation. BH describes a stream flowing from an outcrop of gault, which he noted to have been covered with drift geology. Noted the large number of Scotch Pines planted at the Westerham Hill Estate. Also comments on an oak tree.

At Worms Heath he noted the small pebbles in the bed there, in which he found no quartzite. Titsey Church, which was built in 1860, receives favourable comment and he elicits information of about its historical associations. Comments on the house, in the village in which George Eliot lived. Oxted station is noted to have had a gravel capping, since removed. Mr Bell found two quartzite pebbles there.

Unnumbered page. Entry from previous page continues. BH compared the gravel cap to that of Dark Hill, Borough Green. Called on Mr Bell, who accompanied BH to Westerham from where, having missed the train, he walked to Sevenoaks. There he called on Mr Bevington for a chat before returning home.

June 23<sup>rd</sup> 1885. In the company of Horace Bearle, BH rode to Oxted on his way, once more, to Limpsfield, via Oxted and Westerham. He describes Oxted as an old fashioned village with stream, arising from the gault, flowing through it. From there he continued on to Tandridge, where the church is to be found in a secluded position with a notably large yew tree close to the tower. On the footpath there he found old flints and pebbles. On the ridge, through a field, he noted the presence of soft and yielding sand, so much so that they felt as if they were sinking into it. Here they found some Neolithic flakes, one fine example of which he gave to Mr Bell. Spoke to a shoemaker, outside whose shop there were a few lines of verse that BH cannot resist quoting. Oxted Church noted to

be ancient, having some Anglo Saxon work, and with a tower resembling that of Otford Church. Examined the geology at the station and noted the presence of many pebbles in the deep gravel there. They entered Limpsfield via the road past Park House, the home of George Eliot. A visit to Mr Bell's was preceded with a look at the church. Inspected Mr Bell's Palaeolithic collection and the new acquisitions, one of which, a creamy yellow artefact was 'worth a pilgrimage to see, a perfect specimen of an ovate shape' Beneath this is a sketch of said tool.

Unnumbered page. Entry from previous page continues. BH noted Bell's collection has many ogee, curved implements, in addition to many pointed ones. Some of these tools, he says, were made from old, weathered Wealden slope flint, such as is found on the higher plain of Oldbury'. On his return journey, over the drift beds, he is given a fine quartzite pebble found at a depth of six feet, by the workmen.

The next location visited on this trip is Ridlands Hill where he found weathered chert. He comments on the similarity between it and a track at Fawke Common. On reaching Manor House, they turn left, then right through a gate along a trackway on gault, where he found a large quartzite pebble.

Unnumbered page. Entry from pervious page continues. At a brickyard BH examined a section of the Folkestone beds, which were overlaid by gault. This he considered an excellent example of this type of geology with very coarse white sand. He then went on to climb a stratified, outlying patch of the Folkestone bed, just north of the main road. The flints showed worn edges, like those from Aylesford, and there were no pebbles on end. Mr Bell found some samples he thought had been worked. BH left Westerham at 4.50 and arrived home, via Otford, at 7.14. He noted that many of the coombes he had seen that day resembled the ... (name unclear) valley.

On August 13<sup>th</sup> 1885 BH took the train to Farningham. Walked via Sutton and Darenth to lower Green Street Green, up the hill to the 300 cap where he found 'London clay, chert in abundance, fragments of Oldbury stone, grit and rag.' On through Bean Farm yard, passed the Black Horse Inn shortly after which he saw the 'Eb powder factory'. Spoke to the Manager who was unable to give reliable information about the well sunk before his time but referred BH to the Isler Company in Blackfriars Road. Chatted with the gravel diggers who reported no record of mammalian remains. Called on a former well-digger of eighty, who remembered clearly the history of well-sinking. This man confirmed the presence of

rock similar to that already cited by BH, when a well was sunk by a row of cottages, to the NE of the factory. Arrived at Rebecca's at 12 where he chatted and inspected a section at the back of the cornfield.

P.10. Wednesday September 16<sup>th</sup> 1885. Started walking towards Stone pits at 7 a.m. where he 'paced the hop garden from top to bottom' noting the boundary line of the fault. Noted both flints and quartzite pebbles, both stained from contact with the gault. He traced the flints from there up to the road close to Broad Oak cottages. In addition, he found some implements and several Palaeolithic flakes. Billings handed him a supposed implement, which closely resembled the silicious stone found at Green St Green. Searched the hop garden to the east of Watery Lane, finding some blue flints like those in the low level at Basted Valley and similar to those found on the unwasted plateau in front of Walnut Tree House at Claygate Cross. Notes the preponderance of apparently worked and shaped pieces of chert, though he reiterates his uncertainty about these. Resolved to make a special search.

The next entry is stated to be a continuation of the Green Street Green trip (from the previous, unnumbered page). Chatted with people before meeting JP and his wife at the Ship Inn, who had already started walking but 'got caught up at the fossil bed', which JP considered was at the junction of the Woolwich and Reading beds. On arriving back at the 'Ship' where BH had a well-earned cup of tea, he comments on the history of the Inn, which he suggested had been a Court of Justice. This assertion, he suggests, is supported by the Royal Coat of Arms, dated 1701, which hung over the fireplace. Passed St Margaret's on the homeward journey and noted the drift with chert on the crest through Sutton towards Farningham.

P.11. The entry from the previous page continues. The joint expedition of JP and Mrs Prestwich and BH continued with an examination of a river drift bed at 200 OD east of a Mill where chert and ragstone were identified. The party enjoyed some form of transport since BH records that they alighted at Shoreham Station, calling on a mutual friend, Mr Loveland, where they took refreshment. BH arrived home at 9 p.m. after a day made replete by the addition of perfect weather.

He continues his detail of the day's outing, describing some of the specimens, one of which is a stone from the Woolwich beds containing a spiral fossil, typical of the era. BH continues his reminiscence of the day expressing the wish that the elderly former well-sinker, whose memories so captivated him, had been present some twenty years previously, at the

sinking of the well at Darenth Hulme<sup>5</sup> about 26 years previously. He recalls that JP assigned the ironstone fragments, found at Dunstall and Colgates, to the Lenham beds '(ie) the Crag'. BH resolves to visit Lenham. He describes the day as 'one of extreme profit and pleasure and venture'.

Tuesday September 8<sup>th</sup> 1885. BH took the 9.35 train to Swanley and from there walked towards Eynsford along the old high-level bed. Quartzite pebbles found in the field, which 'had just been steam-ploughed.' No trace of chert however. He found white flakes and one scraper as he made his way towards a tunnel. On a knoll he found some chert, coloured flint and ragstone.

P.12. Entry from previous page continues. Walk continues through the park to Park Gate Farm and Shoreham where BH called on JP. Notes the presence of white flakes in the valley near Darenth Hulme.

Sunday August 18<sup>th</sup> 1885. BH made his way by train to Eynsford in the company of Mr. Hale<sup>6</sup>. There they examined the high-level bed, after which they made their way to Lullingstone Castle and then followed the course of the stream to Shoreham from the north eastern perspective of which the powder factory could clearly be seen.

Sunday September 20<sup>th</sup> 1885. BH went to Boro' Green before breakfast. Met Willie Tomkin<sup>7</sup>. At 9.30 a company of folks including BH, his wife, were driven to Woodlands church via Knockmill to a 'hearty' service. BH found the hymns to his liking. Met Mr Handcock with whom he enjoyed a chat. Refreshments at the Rising Sun. Notes the profusion of both blackberries and nuts<sup>8</sup>. The day was so clear that from the heights BH was able to discern the Surrey Hills, the Wealden heights and the Downs almost as far as Ashford more clearly than he ever remembered. A double red line is drawn under this entry after which BH cites a letter from JP re: two implements from Stone Pits 'There is no doubt of the

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<sup>5</sup> Darenth Hulme was the home that JP and his sister had built on the south-east facing slope of the North Downs at Shoreham in Kent. Any well sunk there would have been deep and labour-intensive. It is a monument to geology being full of allusion to the subject so close to his heart. It is a distinct architectural landmark, especially from the train running to the west of it. The house is now (2014) divided into two properties.

<sup>6</sup> Mr Hale was a close aficionado of BH's who lived in Ivy Hatch. He published various books on matters relating to the prehistory of the area.

<sup>7</sup> Both Willie Tomkin senior and junior were related to BH; WT senior was his brother-in-law and WT junior his nephew. Tomkin junior was a graphic artist whose sketches of stone tools and eoliths grace the BH archive, usually signed 'WT'.

<sup>8</sup> By which he almost certainly means Kentish Cob Nuts.



specimens from Stone Pits being made of the Swanscombe stone, and it is a very curious and interesting fact...’ The suggestion being made is that rough-looking stone tools were made at Swanscombe and brought back to Stone Pits.

P.13. Sunday October 14<sup>th</sup> 1885. BH took the 10.15 train to Barming with Mr. John Hale, Horace Beale and Ted<sup>9</sup> where they inspected beds above the station noting black layers which JP attributed to the presence of manganese. The party went from Barming to Aylesford where they walked along the Medway river valley. Here the drift beds were examined. BH notes how pretty the bridge and the old gabled house look reflected in the river<sup>10</sup>. From there up the dip slope of the North Downs on to Kits Coty House, noting a section showing the upper Folkestone bed under the gault and at Bassett’s farm<sup>11</sup>. Kits Coty is noted as then having been afforded the protection of ‘a stout iron fence’. They called on Harris who had found elephant and rhino teeth and part of a tusk. BH home by 3 pm.

Wednesday October 8<sup>th</sup> 1885. BH received a letter from JP about Stone Pits stone tools asking BH to call in if passing. BH took the 9.33 train to Swanley and back to Shoreham. He was there introduced to Professor Judd, of the School of Mines, and Mr Wiltshire who expressed an interest in BH’s work. He invited BH to call in on him in Kensington. Lunch and lecture by JP re: silicious stone, the fossil fresh water plant Chara as well as varieties of Limnea and other fossil entities, which BH has sketched. BH resolved to find something for Prof Judd so searched at Fane Hill where he soon hit on an implement and one flake. The implement concerned is identified as 253.

P.14. Copy of a letter from Professor Kennedy of the Engineering Laboratory at University College, London, who, having sought Professor Bonney’s opinion on the quartzite pebbles in question, relays it to Mr Bell. The light coloured examples of which are probably bunter whilst the other stones, considered more or less similar to sarsen stones, date to the late Tertiary. These latter, it is noted, occur in the Woolwich, Reading and Bagshot beds.

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<sup>9</sup> Ted is Edward Harrison, BH’s surviving son.

<sup>10</sup> They still do on a fine, bright day.

<sup>11</sup> Bassett lived in a cottage at the foot of Oldbury Hill, on the north-eastern slope and his farm was probably part of what is now a much larger soft fruit-growing operation, to the north-east of his cottage.

Wednesday October 7<sup>th</sup> 1885. A letter from JP asking BH to validate the find of 'the rude travertine implement' (? from Stone Pits) and asking him to call in on him. BH of course responded to this magnetic summons and took the 9.35 train to Swanley and back to Shoreham arriving at 10.33 (such precise time recording). Professor Judd was there, who made known his pleasure at again meeting BH. Lunch and out 12.45. BH had a 'delightful walk home...at Fane Hill found an implement and flake' which I sent on to Prof Judd,' who responded generously by giving BH a copy of his work on volcanoes. BH records the presence of ironstone at Dunstall Farm, observed on his walk home.

Sunday October 11<sup>th</sup> 1885. BH took the train to Shoreham to get the Shrub Hill specimens that JP had promised him. He made the return journey via Dunstall Priory and Upper Austin Lodge. At the base of the hill, on an unwasted patch, he found white flint, cores and flakes.

P.15. Entry from previous page continues. On the ridge BH found about 26 pieces of ironstone. Though he had been to this area before, he had never searched this particular field.

A copy of the correspondence and geological sections related to the sinking of the well at Bean, Kent. The detail of the above information continues to P 17. This includes a letter from JP, dated October 14<sup>th</sup> 1885 and a reply from an unnamed correspondent of the Isler Company.

P.17. Sunday November 15<sup>th</sup> 1885. BH went by train to Fawkham where he planned to meet Mr. Spurrell at 'Eb.' (Ebbsfleet?) Mills. Spurrell did not make the appointment but this gave BH a good opportunity to note the stone. He notes the absence of fossils and concluded that it had been laid down in two or three layers rather than as one thick block. From there he went on to Miss Rogers at one and then to Ash. He was met at Ash Church by The Mists wagonette<sup>12</sup>. Met two walkers who knew Spurrell, having been employed at a factory in Northfleet. They nicknamed him 'the Doctor'.

November 19<sup>th</sup> 1885. Whilst out walking in the Terry's Lodge and Ash areas, BH found, at the former site, a quartzite pebble and the latter an orange coloured implement which he found on the footpath below the Black Lion, about which he sought an opinion from Sir John Evans. He

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<sup>12</sup> 'The Mists' was the name given at that time to the George and Dragon in Ightham. Cycling was very popular and the Mists Hotel was the place favoured by cyclists exploring the Ightham area.

had a conversation with Rebecca, whose knowledge of the area he obviously respects. They discuss the type of stones from the EC Powder well at Hayes. A line in margin in which Sir John Evans notes the similarity of this implement to that from Currie Wood.

P.18. Entry from previous page continues. The well at Hayes and the rocks, as noted by the well-sinkers is further detailed.

Sunday November 22<sup>nd</sup> 1885. BH started out at 9.15 to visit the Old Soar<sup>13</sup> after which he pressed on, due east to Broadfield. There he found many angular flints and some Neolithic flakes as well as Tertiary pebbles. Underlined is 'much red earth', a detail that BH must have considered particularly worthy of note. A substantial spread of chert, thrown out of a grave, some 4-6 feet deep, that was being dug, is mentioned. Comments that the vegetation found at high levels (500 OD) was sparse, but increased in density and variety as he descended. Notes the blackened nature of the spread, which he suggests may be owing to the presence of manganese. One example, brought home, also showed dendritic marking. A post hole in the corner of an orchard, near the Star and Garter, showed the thickness of the sand there to be over three feet thick.

P.19. Entry from the previous page continues. Via Four Wents and Basted and keeping to a level of 300 feet OD, BH found what appeared to be piece of Swanscombe stone. This he sent to JP.

On the 30<sup>th</sup> November 1885, BH received a letter from JP re: the specimen of Oldbury stone sent by BH for analysis. This JP found perplexing, and considered that it might have been mixed in with the debris from the Millstone yards, since it could not have got there by natural processes. He also considers that it might have been worked and therefore carried there by human agency.

A copy of a letter from Spurrell, 2<sup>nd</sup> December 1885, probably in response to a request from BH asking for an opinion on the Basted stone. Spurrell indicates his agreement with BH's conclusions and promised to send his own similar specimen from Swanscombe Hill to BH for comparison.

Wednesday December 2<sup>nd</sup> 1885. Polling day at Boro' Green. Walked to Platt with Mr. Frampton and examined peat beds near his house noting

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<sup>13</sup> A medieval building, which, despite its state of dereliction, is an arresting part of the landscape with an interesting history.

the presence of some old flint, which, though, originated on the Wealden slope. On to Comp, where the presence of ragstone was noted and then on further to Hock Wood and the plain where James<sup>14</sup> found an implement at 312 feet OD. There the rock observed was chert. Flint was seen in Offham village, where it cut through the ragstone behind the village. Examined the Rag quarry near an oast house where the upper drift also contained some flint. More flint observed as they cut across the valley in the direction of Broom Cottage. From there they made their way to the Keeper's (Jupp) house.

P.20. Entry from the previous page continues. They found many worn boulders of Oldbury grit, old flint and some Tertiary pebbles as well as worn chert and ragstone at Oxenheath. Dined at Mr. Shrivell's after which they continued towards the Goose Green pit in a small excavation of which BH notes lenticular sand with layers of Wealden pebbles. The drift above this contained chert and sandstone. Driven home in the dogcart.

On December 6<sup>th</sup> 1885 BH Started out at 6am but got wet from heavy downpour near the Black Lion at Halling (or Hartley?) Notes Tertiary pebbles, which he thinks resemble Purbeck Marble, being full of *Limnea*. At the cottages at High Cross he comments on the number of men, almost all new residents. Gerry Stevens joined them there, having walked from the west. He had a perfect memory of the rock found at the southeast works. He recalls the day on which Miss Rogers took some samples away with her for her rockery. He also took some home, which he intended to take to her but forgot. He promised BH he would look for it. BH called on Old Glover's one-time apprentice well-sinker who was out at work. Called in at The Ship for a chat.

P.21. Entry from the previous page continues. Continued on to Fawkham Station drift bed, which he thought to be about 12-14 feet deep. Found some Swanscombe stone, which contained fossil *Chara* and *Limnea*. In addition he notes the presence of Oldbury Grit and ironstone and much old flint. Comments that Hugh Cross found two pieces of chert near the cottages, on the plain. He considers the capping to have been spread thickly on top of Swanscombe Hill in geological times. Back by train to Sevenoaks. 'A most enjoyable day'.

Cryptic two-line reference to a dead fox.

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<sup>14</sup> BH may be referring to Mr James of Ightham Court, who had an interest in the antiquity of man.

8th December 1885. Copy of letter from JP, sent from Oxford regarding the specimens sent to him by BH, which he acknowledges as new to him. An entry entitled 'Silicious Limestone' with seven (exquisite<sup>15</sup>) pencil drawings of univalve shells, said to be characteristic of freshwater deposits, and three of plants, one a recent *Chara* from Italy and another of a fossil *Chara*, showing the sessile seed vessels, with one enlarged seed vessel to show the detail.

P.22. Continued from previous page. Detail of the shells drawn and information regarding their chronology and life cycle. Two more drawings of shells on P 23 and the exegesis continues to P.25<sup>16</sup>.

P.25. Sunday January 3<sup>rd</sup> 1886. BH sets off on a walk to Marle Wood to see a Mr B(evington) who had been unwell. BH found his friend had improved so he set off for the Seal gravel spread where he found a very large, ochreous pointed stone tool, much worn and certainly the finest since the Aylesford implement was found. A few moments later found another small implement very like the St. Acheul specimen sent to him by Sir John Lubbock.

Sunday January 17<sup>th</sup> 1886. BH received a copy of JP's *Geology* but could not resist the temptation of a small walk before he sat down to read. Up at 5.30 he had time to walk to Shoreham, then, by train, to Sevenoaks where he chatted with Mr. Knight and Bevington. Slipped in the field at Seal on his way back. Was attempting to find some specimens to send to JP with a letter of thanks for *Geology*. He also searched the Yaldham area where he found a pointed implement on the shoulder of the eastern hill across the coombe. He also notes sending a telegram to Shrivell who came over in the company of Miss Saxby.

P.26. Bell visited BH and they called on Mr Bevington who was too unwell to receive them. However, he allowed them to use the billiard room to inspect his lithic collection.

Sunday February 7<sup>th</sup> 1886. BH took the 8.50 train to Otford where he called in on Mills for a long chat. Noted the immense quantity of chert in

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<sup>15</sup> This is an excellent example of BH's consummate artistic skill and of his eye for detail

<sup>16</sup> This exegesis on fossils and their chronology has almost certainly been copied, very carefully in exquisite, small handwriting, and reflects BH's mood of satisfaction and optimism at having undertaken an investigation successfully. His moods affect his handwriting noticeably.

the mid-level gravel beds towards (?). after which he turned across the hop garden finding a curved (?) eolith. Searched the high spread of the railway section where he noted much red earth and chert. At a slightly lower level to the west found many brown flints. On to Marle Wood where he chatted and then further on to Seal where he found nothing. In the eastern field, near Childs Bridge he found a 'nice impt, which he sent to Dr. Evans'. He noted the black, lenticular stained bands, similar to those in Barming. Speculation as to the cause of the staining. 'A very fair day (wife in town)'.

On Sunday February 14<sup>th</sup> 1886 walked to the level crossing at Offham where he examined a field to the right where the path crossed to Highlands noting some old flint and tertiary pebbles. Turning to the left, past Aldon he examined the land, finding some old flint. To the north of the village he found traces of old chert. In the hop garden opposite Fatherwell he examined the land south of the valley where he identified a lot of old gravel. Disappointed to find a field he has previously searched with JP and which he obviously intended searching on this trip, to have been 'liberally coated with sprats'!<sup>17</sup>

P.27. Entry from the previous page continues. Put off by this, BH searched the next field where he noted the gravels and was fortunate enough to find a fine pointed implement. The walk continued towards the south of Offham and Comp during which BH noted the old surfaces. It rained!

Thursday February 18<sup>th</sup> 1886. This account a little obscured by a note referring to a letter of 4/3/1886 in Sir E. Harrison's writing. BH walked to Seal where he called on Bryant to see his fossils found in a Kentish rag quarry. One slab of stone full of worm-like fossils was new to him. He crossed the river by the paper mill and made his way to the Maplescombe valley. He notes a preponderance of Tertiary pebbles. The route he took from here is not very clear but he kept to the higher levels. He passed East Hill Farm walking down into the valley where he observed more weathered flint.

Sunday February 21<sup>st</sup> 1886. 7 a.m. start. Driven by Sam Cripps to Meopham on a cold, snowy day. Tertiary pebbles on ridge noted as well as natural drainage systems towards Gravesend. Notes a Queen Anne building which serves as a farmhouse. On to Ash where he searched in

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<sup>17</sup> The meaning of this expression eludes is unclear.

Roger's hop garden. Oldbury stone found near Crowhurst. Mentions Knockmill and an unwasted plain near Two Chimney House.

P.28. Entry from the previous page continues. Tertiary sand stand, which he queries as Bagshot sand, also noted on crest south east of Drain Farm. In Birches he came across a keepers oak where he found no less than 58 weasels and stoats, 4 hawks, 2 crows and 14 jays.

On Tuesday March 2<sup>nd</sup> 1886 BH went to Tonbridge on 'a cold snowy day'. He inspected the sections on the building site just above the grammar school, finding brickearth intermixed with chert and a few pieces of flint upon stratified layers of Wealden pebbles, below which lay weald clay. More pebbles found at Starve Crow in the chert gravel. Mentions the presence of black stained rag on the crest, like that at Crouch.

Letter to Bevington from G. Seeley dated 4<sup>th</sup> March 1886, thanking Bevington for leaving a fossil specimen of wood which, he says, has been drilled by an ancient ship worm, apparently a species of *Teredo*. BH informs us that this specimen is from a Kentish Rag quarry near Godden Green where stone for the construction of Lord Hillingdon's mansion was being quarried. It was given to him by Bryant.

P.29. March 16<sup>th</sup> 1886. The severe frost and snow did not stop BH and Horace Beadle setting off at 9.45 for Exedown where they note the beauty of a frosty day. To Ridley via Stansted and the plain above Court Lodge where they observe the presence of the Lenham beds and some Tertiary pebbles. The architecture of Ridley church, with its narrow nave windows, is commented upon. From there to Longfield where the old stained glass windows and a massive granite tomb, are noted. Sketches of windows and tomb. The drift beds in this vicinity are examined, though conditions made this an unsatisfactory venture. Chert observed as well as stone similar to Swanscombe stone. Met a workman who said that they had found fossil horse and elephant bones that had been found between 15-18 feet deep. Lunch at The Ship. Talks to old men in the Inn who recall Bean well and associated hard rock dug from it. Sam Venns of Dartford was identified as one of the workers involved in sinking it. Called on Sam who lived at Milstone Road Dartford, but he was at work in Crayford. BH got the train home. Note informing the reader that the stone was brought from Bevan's Cement Works.

P.30. June 8<sup>th</sup> 1886. Extract about walking with friends from Prideaux Selby's Reminiscences. BH started at 8.30 for the Seal bed and Dunton

Green, after which he took the train to Westerham and from there went on to Limpsfield and lunch with Mr. Bell, wife and friends. An implement inspection followed. A pointed implement was found by the workmen in the hop garden and given to Mr. Bell. BH saw ammonites and fish in the Lias, which he thought were fine and interesting specimens. Two small newspaper clippings once attached, now removed.

July 11<sup>th</sup> 1886. Abbott and Pelton of Tunbridge Wells visit and BH accompanies them to Isles<sup>18</sup>, Seven Wents, Shingle Hill, the Mote and Shipbourne'. The ghost of another removed newspaper clipping.

July 14<sup>th</sup> 1886. The Tunbridge Wells Natural History Society visited Ightham and had a full day's guided walk as well as an implement inspection. George Payne<sup>19</sup> was also present.

P.31. Copy of a letter from Mr. Courtenay's nephew about Oldbury stone, dated 13<sup>th</sup> July 1886 which provides a geological explanation of this rock type. In it he notes differences in what is considered to be the same rock and also comments on geologists as being 'as slippery as eels when you press them for a definition'. He cites Lyell's definition of grit thus: 'when sandstone is coarse grained it is usually called grit'. He sends some samples of Oldbury stone on which experiments have been conducted.

P.32. Entry from previous page continues. In an interesting post-script concerning E.B. Tylor's anthropology an explanation of the word 'celt' as used by palaeontologists for a 'stone chisel'. Cites the Vulgate version of the Bible and Job XIX. 24. 'celte sculpantur in silice = ground with a chisel on the rock'. He notes errors in translation which renders 'certe' as 'celte' and states that 'celtis' and 'celt' are curiously fictitious words 'originating from a blunder'. He also notes that the word has no connection with the people called 'Kelts or Celts'

A paper clipping describing a visit to Ightham Mote. An account of an excursion to East Dean, Eastbourne and Lewis on Wednesday August 10<sup>th</sup> 1886. Note re: Mr Lasham who arrived unexpectedly with James. They were disappointed to find that BH was out.

P.33. Continued from previous page. Drawing of the left hand of a murderess in Lewis Castle Museum. Caught the train to Polegate where

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<sup>18</sup> Isles was one of the workmen who searched for stone tools for BH. He had a cottage in the vicinity of Ightham/Oldbury.

<sup>19</sup> This is the gentleman associated with the Guildhall Museum in Rochester and a notable archaeologist



he noted the remains of the gap connecting the East Dean Valley to the Wealden area. At East Dean, BH visited the beach and the Coast Guard Station. On his way there he describes an old fashioned water wheel, which used a donkey as the mechanism of movement on a treadmill. Comments on a cache of bones and skulls found a few days before his visit, in chalk pit just below the houses. Says the condition of the teeth convinced him that they were ancient remains.

#### P.34. Blank

P.35. Entry from P. 33 continues. The party makes its way to Brighton. BH sights Blackmore, whom he seems to know, or perhaps know of, and with whom he has an interesting conversation. The collection of this gentleman, '...the Robert Dick of the S[outh] Downs', is viewed, to BH's great delight. He mentions that this particular man, who had collected stone tools for over thirty years, had been a close associate of Mark Anthony Sower, an eminent Sussex archaeologist. BH was impressed by the wife of the collector, describing her as 'a far-above –the-average-in-intelligence sort of woman' who had read many of scientific works. Is very impressed also by the fact that this man had read, with the aid of a dictionary, a French scientific book. This man was related to Dr Blackmore of Salisbury.

The following day, on the 11<sup>th</sup>, BH and Bob make their way to Friston Mill and a coombe where an ochreous palaeolith was found. This implement is compared with the Ash eoliths on which similar staining can be found. Continues with more description of the topography, which he compares with the Lenham Beds. Describes the Chanctonbury Ring of firs, Mount Cabourn, and as far as the Ashdown Forest and Crowborough. He even claims to have seen Rotherfield Church.

P.36. BH stayed another night. He breakfasted at 8 a.m. after which he and Ted went Mitcham Deer Park. They found some white flakes on the furze field on top of the cliffs. He notes that this is the same place from which Worthington Smith collected his specimens some years previously. Sketch of the cliffs. In the afternoon BH, Bob and Ted went to Willington Hall, where Ted departed but BH and Bob walked as far as an escarpment. They saw the Hastings anticlinal ridge, which extended to Brightling and on to Mayfield. Walked along the coast where they observed some tumuli. Notes the presence of dwarf *Campanula* and Hemp Agrimony. Departure from Eastbourne at 5.5. Arrived at Sevenoaks at 7.30, home 8.45.

P.37. Blank

P.38. Entry from P.36 concludes. Ted stayed on for three weeks. Mrs Harrison and Agnes went off for 4 days.

Saturday September 25<sup>th</sup> 1886. BH has a visit from Dr [John] Evans and Professor Seeley. BH busied himself arranging his implements for a few days prior to this. Before the visit to BH they went to Seal, Stone Pits and Oldbury. On seeing Town House Dr Evans remarks: 'You have indeed a Palaeolithic house here Mr. Harrison'. He guessed the date of construction to be about 1480. BH records a visit to many sites of interest in and around Ightham, including Bay Shaw and Oldbury, in which places Dr Evans thought it likely that implements might be found.

Sunday October 10<sup>th</sup> 1886. On a fine day BH set out walking, first to Sevenoaks where he met Shrivell and Waller, then on to Westerham and Limpsfield Common where he saw the waterworks excavation. He found what he thought was a mass of Wealden pebbles in a section behind a public house. Lunched with Mr Bell after which he visited the church and Park Farm and then went on to Westerham. He took the train back to Riverhead and got home just after 5. He went with his wife and Captain and Mrs Bennet to Woodlands Church.

P.39. October 17<sup>th</sup> 1886. Captain Bennett and BH take train to Shoreham. Call in on JP who had gone to Oxford. Good day trekking on the higher ground above Shoreham where they found a much worn implement in the Seal bed.

October 20<sup>th</sup> 1886. Attended a concert in the Assembly Room, George Hotel. Description of the performance.

November 7<sup>th</sup> 1886. Attends a concert in the Assembly Rooms at The George Hotel. On November 7<sup>th</sup>, BH visited Lenham and Leeds by train with Harold Beale. Notes the fine architecture and sketches one of the timber houses (P. 41). After refreshment at The Dog and Bear, they walk up to the North Downs where they found stained flints, ochreous in colour. They also observe marine fossils to be seen in some of the recently broken rock. Wonders if a geologist, possibly even Mr Clement Reid, might be responsible for the breaking of these rocks.

P.40. Drawing and description of the stratigraphy and geology of the Downs above Lenham, especially noting the pipes, which descend into the chalk for an unspecified depth. They caught the link train to

Hollingbourne passing Godfrey House, which BH dates to 1560, noting its restoration in 1839. Once at Hollingbourne they make their way on foot to Park Gate house and then they inspect the castle [Leeds]. Continuing on they pass Barnfield Church and make their way to higher ground, around 400 feet OD where they note a band of chert gravel and flint. At the church they noted a ‘vast quantity of tufa used in constructing the tower...’.

P.41. Entry from previous page continued with more description of the church with its narrow, lanceolate windows and early Norman screen. Calls in at another inn where he comments on the Rockingham teapot owned by the landlady. Train from station at 5.45 and home at 7.

P.42. Drawing of the lanceolate windows mentioned on P. 41.

From *Nature*, No: 876, BH copies an article entitled, ‘The Pliocene Deposits of North-Eastern Europe’. The entry is dated August 12<sup>th</sup> 1886. Clement Reid is cited in this article as well as JP. CR said to have ‘settled beyond doubt the Pliocene age of the Lenham beds’. This he had done by identifying the species found in them. This article has Archibald Geikie’s name appended.

P.46. BH has jumped from P.42 to P.46 where he copies a discourse on the Pliocene origin of some of the North Downs high-level flint deposits. A field trip to Lenham and the crest of the North Downs at that location, by Clement Reid revealed Pliocene fossils, of which an extensive list is copied into BH’s notes. The putative probability of this being the case is referred to by BH on P.40 and is of utmost importance to him and his development of the idea of eoliths, found in great numbers in the clay-with-flints on the top of the North Downs, being the indirect fossils, and thus markers of ancient human activity in the Pliocene. The connection Clement Reid makes in this piece, with Pliocene beds in France and Belgium [which of course also yielded flint which, it was maintained by researchers there, were the product of primitive human agency], added weight to BH’s belief that Kentish eoliths were artefacts. This continues to P 50.

P.50. On November 22<sup>nd</sup> 1886, Monday, BH rode with A Holman to Seal Gate. On to Marle Wood. There he went by train to The London Institute at Finsbury Circus to attend a lecture by Dr. Ball on ‘The Astronomical Evidence of the First Great Ice Age’.

P.51. The entry from the previous page continues with a description of the lecture, which was illustrated by magic lantern showing large boulders, some hundreds of tons in weight. Shown are boulder clay sections from Ireland, also ice cliffs in Greenland, glaciers in Switzerland, and icebergs in the Antarctic Ocean. The lecturer acknowledged his indebtedness to Dr. J Geikie and Dr. Croll but differed from them in that he had tried to find out for himself. Further, he suggests that even if the geologists had not observed and noted the phenomenon astronomers would have drawn attention to it and shown that such a period had occurred. On the journey home he was joined by Major Florey, a (parliamentary candidate for Devonport). Mr Bevington was a mutual friend to BH and Major Florey.

Sketch of the auditorium.

P.52. On Wednesday November 25<sup>th</sup> 1886 [1885 is written in red ink so there may be a dispute about the date of the following letter. It is possible that BH copied an undated letter into this volume of the notebooks and assigned it to 1886 by mistake]. BH went to Ash and on the way saw a stag hunt. He undertook an examination of stained gravel south of Ash. Lots of ironstone but no fossils found within. He searched the hop garden at the back of the church and in less than 2 minutes found a deep stained ochreous implement and later a large flake with bulb and secondary working.

On Sunday November 28<sup>th</sup> 1886, BH Examined a chalk pit in Wrotham where he found some immense pipes consisting of sand and Oldhaven pebbles but no ironstone. From there he made his way on to Fairseat where he found many spreads of pebbles, one lot of which was black. Near Sparks Field he found some chert.

Monday November 29<sup>th</sup> 1886 saw BH make for the London Institute for a lecture by Dr Ball, which, he did not find illuminating owing to the hurried nature in which it was delivered. All in vain, he tried to catch what was being said by means of his ear trumpet.

P.53. December 19<sup>th</sup> 1886. Copy of a letter from Mr Henry Willett to Mr Bevington. Refers to having had Oliver Wendell Holmes as a guest. BH's enthusiasm for OWH and his works probably prompted the inclusion of this letter. He often mentions *The Autocrat of the Breakfast Table*, one of OWH's books.

Sunday August 14<sup>th</sup> 1887. BH gives an account of a trip to Dymchurch with his wife, Mr. Shrivell and Mr. Edward Laxby. Describes the Rother and the Roman connections with this part of Kent. BH is aware of the Saxon connections that this area has. He splashes about in the sea at Dymchurch. They lunched at the Ship Inn and he and Mr Bevington took a wagonette to New Romney.

P.54. Entry from previous page concludes.

A copy of Extracts from *The natural Scenery of Sussex as Related to Geological Formation*, by. F.W. Bourdillen.

P57. Conclusion of the extracts from the preceding pages. BH has omitted pages 55/56.

At this point the entries start from the back of the volume and consist of copies of letters and articles.

On the flyleaf, a letter to BH from Alfred Russel Wallace, from Frith Hill, Godalming and dated January 30<sup>th</sup> 1888 in which he expresses pleasure that BH liked his work on *The Antiquity of Man in America* and suggests he might care to read another of his articles on American Museums in the *Farthinghills Review* for September – November, or perhaps December [his memory lets him down as to the exact dates]. In it are described the collections of stone implements in America which Wallace thought would be of interest to BH

Two biblical quotations.

Part of a poem by Byron.

P.1. Quote from George Eliot in the Cornhill magazine.

Copy of the writings of Col Lane Fox, later General Pitt Rivers, entitled *Early Modes of Navigation*.

*The Antiquity of Creation* by C.J. Drury November 1884. Interesting discourse on time, and how incomprehensible it is to non-scientists, especially in relation to Darwinian evolution. This represents the contents of a paper read to The Maidstone Natural History and Philosophical Society and the remarks that it elicited.

P.2. The entry from the previous page continues to P.10. *Chambers Journal* 174, Vol 3 mentioned. Three lines about Dovedale and Ilam village. A question about Isles and his possible connection with ... (writing illegible).

P.3. Blank page but facing page continues from P.1. Attention is drawn to the flint implements upon the table which have been kindly lent to Mr Druery by his friend, Mr. B. Harrison, who is noted to be the finder of by far the larger number of palaeoliths or old stone implements which have been so far discovered.

P.4. Blank page but facing page continues from P.3. Difference between Old and New stone age in terms of morphology and technology of implements.

P. 5. Blank page but facing page continues from P.4. Discusses the relationship of the Thames to the Rhine in Palaeolithic times and recognises that Britain was part of a contiguous European landmass in these distant times. Worthington Smith's work recognised.

P.6. Blank page but facing page continues from P.5. Expanding on the work of W(orthington) G S(mith).

P.7. Blank page but facing page continues from P.6. Acknowledges that the stone tools help gain an understanding of the immensity of time. The constituent parts of flint seen under a microscope.

P.8. Blank page but facing page continues from P.7. Refers to time as both builder and destroyer (cyclical time). Refers to the tools from Crayford, Kent<sup>20</sup>

P.9. Entry from P.8 continues. Stephenson, railways, coal and the sun's bottled up energy discussed. Suggests a visit to the Coal Exchange, Thames Street, as an aid to understanding earth's history.

P.10. Visit of the members of Maidstone Natural History and Philosophic Society July 23<sup>rd</sup> 1884.

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<sup>20</sup> The stone tools referred to here are those excavated by Flaxman Spurrell, many examples of which are housed in Maidstone Museum.

In a letter sent to Bevington Smith regarding the above society, great surprise is expressed at the number of strangers at the meeting, it being noted that  $\frac{3}{4}$  are ladies. The trip went ahead raising many questions.

P.11. The account of the excursion continues from previous page. Some pondering on what constitutes a truthful picture of prehistoric women is evident and the writer concludes that 'prehistoric man has been a bit overdone at the expense of his helpmate cruelly left out in the cold'.

P.11. Extract from E.B. Tylor's address at the Montreal meeting of the British Association in which it is suggested that Quaternary man is best understood, albeit indirectly, through the stone tools he produced.

P.12. Entry from previous page continues. Draws a picture of the probable landscape in which ancient humans lived by drawing on the evidence such as the Crayford finds of Flaxman Spurrell. Mentions some of the meagfauna that would have both threatened, and also provided a food source, for early man. Compares Palaeolithic and Neolithic humans.

Extract from Grant Allen's *De Banana in Cornhill*, dated February 1885. This refers to the Scandinavians of the 11<sup>th</sup> century and their sea crossing to America. He cites Tylor's address, which refers to the ancient land-junction of Asia and America.

P.13. The entry from the previous page continues with reference to the fact that a relatively slight elevation of under 200 feet would raise the Behring Straits to above sea level. This being so in ancient times, America could have received its population by ordinary migrations of successive tribes along this highway. The conclusion is that this makes the age of the first Americans much easier to work out. The work of ethnologist Dr. Pickering used to make connections between south Asiatica and the indigent population of America.

P.14. Continued from the previous page. More speculation on the Viking sea voyages to America. American indigenous languages considered. Reference to the Norse Sagas as a source of information. Humboldt's suggestion that to see one native American is to see all the indigent population is cited.

P.15. Entry from the previous page continued with a concluding paragraph that cites the Norse Sagas as a possible source of information.

An article from *Cornhill*, dated October 1872, is cited in support of the above. It is entitled *Legends of Old America*. In it the work of Professor Ralph is detailed. He uses the Icelandic Sagas to underpin his assertions. Attached is a paper clipping about the discovery of America, not by Columbus but much earlier, in prehistoric times.

P.16. Entry from previous page continues and concludes. On facing page there is an analysis of well water from Heather Bank, Ightham, together with remarks. The depth of the wells, their geology and the chemical properties of the water are recorded. BH has clearly copied an article from a scientific paper that continues to P.20.

P.20. Another copy from an article, or most probably a book from the work of A E Hickmott, in which it is stated that the discoveries of modern science have revolutionised the world of thought. Darwin's great theory of natural selection, like Newton's law of gravity, has marked out a distinct epoch in human thought.

'Everywhere facts are being collected, everywhere nature is being questioned, by the telescope, by the microscope and the geological hammer and chemical apparatus, to compel her to reveal to us the great secrets of earth's history....'

Pages not numbered from this point on, to where this particular discourse meets that coming from the other end of the journal. There are 14 pages under the above title.

It is asserted that the confidence in science provides a sure and firm foundation for the growing understanding of early man. There is a history of Britain from the time of Caesar's landings. The Three Age System, the age of bronze preceding the age of iron, is estimated to have occurred between 3-4000 years ago. They followed an age when stone was the material from which humans fashioned tools.

The Neolithic is characterised as a time of polished stone implements though other characteristics, such as the ownership of domesticated animals is noted. This period is dated to between 4-7000 years ago. The suggestion is that such people had come across dry land from the continent. At the time of their arrival Britain was thought to have been unoccupied.

The evidence of earlier previous 'races of men' whose remains, direct and indirect, had been found in the ancient beds of rivers and from the



cave deposits of France, Italy, Germany and England, is recognised as confirming Darwin's ideas of biological evolution from an inferior stage of human development. The existence of such people from the Palaeolithic or Old Stone Age is associated with the following characteristics: the lack of manufacture canoes, possession of domestic animals or polished stone implements, while flint tools were seen as roughly fashioned, inartistic and invariably large.

Questions are asked as to the origins of these, very ancient races, especially those who lived in the Medway Valley. The chronology and climactic conditions of these people is considered along with the other fauna with which these people might have shared the landscape.

The evolution of early man is presumed to have been from an '...ape-like ancestor somewhere in the S.E of Europe', though the mechanism for this transition is not understood. The possibility that, when the geology of southern Asia had been worked out, a missing link between ape and human might eventually provide the answer to the question of when and where man first evolved.

Having evolved, the human family, it is suggested here, separated into two branches, one of which migrated westward and populated Africa '...developing in time curly hair ...' whilst the other branch, which became slowly characterised by straight-haired people, populated first Asia, afterwards Europe and later still America.

The main source of these conclusions is ethnology supported by geology. The generalisations and background having been provided, the paper moves on to consider the evidence for early man in the Medway Valley.

The question of the manufactured nature of flint tools is dealt with and the presence of the well-known phenomenon of the bulb of percussion, being a 'sure sign of the work of man' is suggested. There is no mention of eolith or palaeolith at this point so it is not clear exactly which class of stone tool, or putative stone tool is being referred to.

The geology of the river valley between the source of the river and Aylesford is discussed. The connection between the various stone constituents of the gravel formation in the Medway valley is related to the flow of the ancient watercourse that flowed along a similar line, though at a greater height than the present Medway, is made.

The existence of a pottery clay pit, which seems to have been the source of clay for the pottery at Aylesford Priory, and which forms a break in the gravels,<sup>21</sup> is discussed.

At Allington, the south-eastern railway cutting and in discrete places on the surface, there are patches of river gravel, extending as far as Barming Station and also encompassing part of the Preston Hall estate. The evidence of a bank of river-deposited gravel is noted to extend at least as far as Chatham. The time taken to form the valley and deposit the gravels, in which stone tools are to be found, is used as evidence of the great age of Man's presence in the valley of the Medway. The work of Professor Geikie is cited to underpin the theories being proposed here, and in relation to the formation of other great Asian, European and American rivers, such as the Ganges, Danube, Rhine and Mississippi.

Other petrological and climactic variables are considered in estimating the different chronologies, but the great age of the Medway valley is re-affirmed and thus, by association, the age of the stone implements found in these gravels. The age of the Aylesford gravels is estimated to be around 40,000 years old whilst those of Barming Heath, around the Asylum, are judged to be some 200,000 years old.

The discourse moves on to consider the implements found in various locations in these gravels. They are noted to be large in size and covered with a brown coat called the patina, which is said to be a sure sign of great age. In addition, some of these implements were found in association with the remains of extinct mammals. The [very insightful] recognition that the implements may be older than the gravels in which they were found, is taken to suggest both the possibility of an evolutionary process of technological development and the dynamic nature of gravel formation and deposition. Many of the implements are noted to be water worn.

The ultimate question asked is, what kind of human was it that earned the epithet 'Palaeolithic Man'? The first reference is to his roughly chipped implements from which it is concluded safe to assume the existence of savagery of a primitive type. Despite this, it is acknowledged that '...these early men, like the Eskimo of today, could carve horn and roughly sketch animals with considerable skill...'. .

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<sup>21</sup> Quite probably as a result of extraction for commercial use.

Reference is made to hominid skeletal remains, which are noted to consist of two types, one more primitive in appearance than the other. The latter, cave dwelling people, whose implements are judged to be less primitive than those found in river gravels, are believed to be the progenitor of today's Eskimos.

The paper concludes with the thought that it is clear that the oldest representative of humanity locally is Palaeolithic man who is associated with tools found in the gravel drifts of the river Medway. 'The Great Ice Age' is mentioned because it is not held to be contemporaneous with man in Kent. There is a recognition that the paper only skims the surface of a complex topic though the hope is that what has been said will be sufficient to generate interest in scientific research, and through engaging thus, to learn more about the fascinating subject of the early population of the Medway Valley.

It is signed: A.E. Hickmott, July 21 1887.

. For and on behalf of, Maidstone Museum and Bentsliff Art Gallery.

4<sup>th</sup> March 2014.