

## **Maidstone Museum**

### **Benjamin Harrison Archive**

#### **Volume 15**

[This volume has 'Book 15' in pencil on the first, cardboard loose leaf. The dates of entries range from September 1874 to 1893 with most being 1893 - 1899. Although there are a few diary entries, these have been culled to fit in with a theme, for example well-borings on pp 2-3, were undertaken some considerable time before this volume was composed and may appear in other notebooks. They do not, as in many of the other notebooks, form part of a continuous entry of daily events over a discrete period of time. The content consists largely of extracts from published books, learned papers letters, newspaper and journal clippings. The pages are initially arranged alphabetically after which they are numbered. Following p 63 numbering reverts to p 36 and concludes on p 77. This volume was ]composed much later than the events it records, of material that, chronologically, could have been included in other volumes. Why such material was not included in the appropriate volumes is not clear, though it could simply be that BH came across it after the other volumes had been completed.]

'Note. The geologists are coming to me on July 15<sup>th</sup>, the Professor leading the van and the survey archaeological on July 26<sup>th</sup>. Is there no chance of your coming over? It is long since you have been here. Bell. June'.

Three newspaper clippings re: the sale of Ightham Mote, one of which is dated 1889. Another small clipping re: the find of a rhinoceros horn in Walton-on Thames 15 feet below the surface. It was then estimated that rhinoceros were last living there 3,500 years ago.

A printed account of a lecture given by Joseph Prestwich entitled 'The Tradition of the Flood.' Below this is a cut out of a monkey besides which is written 'as we explore this magnificent field of enquiry, the sentiments of a great historian of our times may continually be present to our minds that 'he who calls what has vanished back again into being enjoys a bliss like that of creating'.

A.

Addresses 77

Ash specimens striations 70

Aldham de St Clere 69

Abbe Bourgeois flints 41

Antiquity of Man (Dr Hicks) 68

African footpaths 58

Architects Society 44 also 32

Aduhmfsno to Rotqqdk 44<sup>1</sup>

Amhurst ?... on Ash visit 71

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<sup>1</sup> An example of BH using his usual code, which in this instance refers to Bevington and Spurrel.

Overpage. Small clipping re: Maidstone High School in which Agnes Harrison is mentioned as having achieved good examination results. Another small clipping re: de Barri Crawshay's request to dig a spot where he thinks there may be an elephant tusk.

A Victorian homily re: understanding.

A loose leaf with the official *South Eastern Gazette* address on which is a letter dated October 2<sup>nd</sup>. 'Dear Sir, thank you for your notes to hand although they came too late to utilise today. I also have to acknowledge your kindness sending me Durley's book, which, with your permission I will retain a few days. Yours .... D Reynold'

B.

Sangerise Abbe 37  
Bower Lane 21  
Bronze, W H White 13  
Bell on Ash (small sketch of a pal) (West Yoke\ 60 also 65  
Blackmore 17 see other books 15  
Bell and Professor Green on West Yoke 55  
Buritt Elihu on Caporn 25  
Bell on Bushman impt 36  
Bell on Dr Tylor 33  
Bell on Preglacial surfaces 34  
Brown Allen, on Prestwich's papers 48  
Bourgeour's flint page 6  
Aiggs Amherst on Ash 71  
Bosely Sir letter M  
Bell's letter Geikie old olds +  
Anticlinal – letter E.

There are two sketches in red ink, of palaeoliths, or one pal two faces. On the lower is written 'Hiltons Friston October 1890 1045'. This latter number relates to BH's system of numbering his finds.

C.

Two newspaper clippings, one by Longfellow [and suitably elevating]; the other outlining a walk by Loveland from Coldstream to John O'Groats House, a distance of 344 miles and done in 10 ½ days.

Chalk, physical feature of 10  
Clay with flints 21 also 35  
Chalk, Woodward 12  
Choice extracts 73  
Caverne, window and will 45  
Cobham gravels 23  
Cobham and Rochester excursion 30  
Crossing the Seine 20

Under this list is a picture of a 15<sup>th</sup> century coffer.

In red- 'continued from W (Lucus on Oldbury). Then, when he pleased, an earthquake would have left it in a better state to find a cave than did your grandfather Biggs. Yet it was one of Ightham's blessings in that day xxx Your grandfather Biggs turned Oldbury Hill upside down and perhaps covered up all the caves. Wm Lucas December 24<sup>th</sup> 1890'.

Newspaper clipping of a letter from Robert Bolt to 'the Editor of *Society* re: Mrs Besant and Madam Blavatsky.

D

Digopithecus 37  
Down, derry down 59  
Divine word, see 2 and R

Stopes paper Nottingham British Association. There follow two newspaper clippings, one containing an account of Stopes paper reading and another, dated Monday May 9<sup>th</sup> 1892, about an accident involving the seating of a visiting circus in Borough Green.

Mr Bell's letter August 1892. British Association of the 12<sup>th</sup> May 1892:

'Dear Mr. Harrison, today I dine with Professor Geikie and take with me, as my share of the feast, a n[umber] of your favourite specials. You should advertise. "The Real Thing Try Harrison's best old olds. Nothing like them. Genuine and lasting. The real article for honest wear".'

He has I think I told you, been laid up so as he could not come to see me I am going to see him. A long day yesterday with Professor Lapworth among the Dumfriesshire hills south east of Hartfell among graptolites, lower Silurian, deep sea bottom fishes. We saw visible anticlinals, rocks raised like this diagram that ?... me'.

The diagram is on the opposing page.

E

Evans on old surfaces 22  
Elton on Tin ?railes 13  
Evans. Physiography – and hydrogeological sites  
Evans, opinions 59 58 also

F.

Small loose newspaper clipping from the *West Sussex Gazette*, dated October 26<sup>th</sup> 1893, about the Southdown Shepherd

Flint chips and flint hunting 57

Footpaths, African 58

Footpaths, Jefferies 73

Ferguson 69

Franks, on Ash specimens.

G.

Water colour of a flint with a patch of black superimposed on a grey background which looks like the silhouette of a male human head.

Greenwood 19

Geologists Association excursion to Ightham 4

Gravels, Spurrell 23

Green Street Green 24

Gault and Greensand and the thickness of 36

Good things worth noting 40

Geological Investigation in Kent Walker 26

Gwimmell's letter on Geo[logical] Association visit 26

Goudry on Thenay flints 37

Gundolph's Tower 30

God – forgive – me 50 (in red ink)

H.

Newspaper clipping on Ash near Farningham.

A flyer from Sidcup Literary Society re their 2<sup>nd</sup> summer excursion August 6<sup>th</sup> 1892.  
A drive to Oldbury Hill and Ightham Mote. BH of course features with a display of lithics in his garden.

Hicks on antiquity of Man 68

Holman Theo on Oldbury card 42

Hugh Miller on Man 71

I.

A short account on how to get rid of thistles.

Ightham stone 1

Ice break up in river yesterday 65

In Memoriam 75

Ice. Crossing the Seine 20

Ightham tradesman's tokens 6

J.

Jefferies on footpaths 73

K.

A newspaper clipping of a lecture entitled 'The chemistry of common life' by Professor Cheshire.

An enigmatic little piece follows on the late Laureate (Tennyson) and the Rectorship of Glasgow University, which includes a little 5-line verse of a story about Tennyson's ill-preparedness to make a speech to his students.

L.

The first letter Lewis (Abbott) wrote on the Ash finds and striae:

'I arrived home safe and pleased we had in September 1888 – such a glorious day for which many thanks. Don't forget to show Professor Prestwich the scratched flake from 490 level, I think they are of great importance. Dr Evans would not say this is no evidence of human workmanship, by the bye. I should send them all to him for his opinion. I think you ought to keep the flakes only send me one that will be enough to show the scratches.

I took away from that field 500, a brown tabular piece of flint with sides so suspiciously like work. After washing I could see it curved with fine scratches like those on the flakes. I think that on that patch you might find deeper striae on the largest brown flints.

I shall be pleased to know what action there has been in the gravels but drift and that worn .... scratches, or would not the flint at Aylesford be scratched'.

Levels 8

Local names 71

Local sayings 72

Lake, Philip on Tertiary man 22

Lewis on scratched stones and worked flint see opposite

Lenham beds Prestwich ... 72

Printed postcard with a request from BH for the return of all his loaned books, pamphlets, letters etc: needed for his autobiography.

M

The Galilee porch at Boxley Church. described in a newspaper clipping.

Morrison St Clair (St Clere) 69

Mote, lines on 7

Mastedon 51

Museums Pitt Rivers 38

Malvern Hills and gneiss 64

Man. Hugh Miller 71

A few lines on the topic of learning

N.

Professor Prestwich on the Lenham beds and at Ash near Vigo. Dated May 4<sup>th</sup> 1889:

Dear Sir, Thanks for indication of ?... at Limpsfield. I think you told me there was no pit and no regular bed of gravel.

Looking over surveying old areas, I came across the enclosed which I must have drawn at the time some 30 – 40 years ago.

At that time I tried to trace the Lenham beds on along the escarpment. Near to Vigo there were several sections open and I conducted account? there. It would be worthwhile carefully to examine the ironstone there. Too much importance is given to the Punish outlier and too little to that at Kingsdown’.

North down land or old surfaces, Spurrell 22. Under this is an undulating line, presumably illustrating these ‘old surfaces’.

O.

A picture of a man hanging from a gibbet, under which is written ‘method of hanging in chains’.

Loose newspaper clipping from the *Kent Messenger* re: BH and his flints and another from the *West Sussex Gazette* about Mr Fleet, a worthy 62 year old Sussex gentleman.

Ghost of a newspaper article, now removed.

Old Sore 64

Oldbury stone 1 distribution

Oldbury stone (Bonney on) 18

“ Analysis

“ Prestwich on 18

“ Cave 42

P.

A small piece about George III and his fiddle under which is a small newspaper clipping about the death of Lord Tennyson.

Prestwich rainfall 20

Parish boundaries (Spurrell) 15

Prestwich’s papers 25

Personal and family memo 76

Prestwich’s paper 25

Payne, Geo on Roman remains 48 on Noviomagus 49

Pitt-Rivers on flint hunting 57

Pilgrims Way 14 also 13

Pre-glacial man Hicks 68

Pitt Rivers on Rotunda Museum 38

Prestwich on Ash specimens 66 geo specimens 35  
West Yoke 66  
Longfield gravel 66  
Glacial period 53  
Phrenology – various notes. Frost 32  
Phillips on Antiquity of Man 35  
1 Prestwich Life of 32  
Prestwich in reply to Bell 40  
Prestwich on Nuffield and nettlebeds 55  
Pilgrim's Way, Cartwright on - 13

Q/R.

An extract from *The Light of Asia* book 6 below which is an extract from *The Divine Weed* according to Bulwer Lytton (a smoker's justification).

Rainfall. (Prestwich)  
Roman remains 48  
Rochester and Cobham 30  
Rotunda museum 38

A copied extract from an unacknowledged source about 'Woman' who 'Teases as well as consoles'. The advice to deal with this dilemma is an appeal to 'Jupiter' to 'Try the weed'.

S

Oldbury caves. W[illia]m Lucas, dated December 24<sup>th</sup> 1890:

'I desire to tell you what I think and know about a cave on Oldbury Hill and the rocks and other things that would go to make up a cave. Well in mind I am standing on the stone steps near the top of Oldbury Hill, I turn my face to look at Oldbury proper as it looked when I was a boyhood days – I now face about again for Seal leaving the old wagon road to the left. I walk a very short distance up that narrow path until I come to the first field to my right just above the rabbit warren, which went with the farm below. Mr Gibbons had that farm when I left George Summers had the land from the top of the rabbit warren over to the next farm house and then called Styants Bottom. Well to my right close by the path and between that field and the rabbit warren was an earth. With my face looking towards Seal I turn my face to the left and start from that point to the left right round on the brink of the hill we come to a point opposite the coal wharf, that was 50 years ago'.

Storms 28  
Smith Worthington 70 also 61 (high implements)  
Spurrell and Swanscombe Gravels 70  
St Clere, 68  
Shode river 64  
Swanscombe visit to Professor and Mrs Prestwich 70  
Savage footpaths 58

Spurrell on North Downs ridge 22  
Society architects 44  
Stanley and Blackmore 17  
Spurrell on Ash finds (rude) 47 & 49  
On Archaeological Institute paper 39  
Sidcup syllabus, see letter H  
Spurrell on Dunstable district page 8

Cutting of a picture of St. Lawrence Church, Thanet

Overleaf with 'S' continue from previous page [Lucas on Oldbury]

... that would be about as far as the stone works went. From the top of the hill above the coal wharf around the cap of the hill to a point opposite the road which leads to Ivy Hatch, maybe is about the end of the Roman camp.

When I was a boy standing where Oldbury Hill could be seen, two gentlemen pointing to Oldbury Hill asked me if that was the Roman camp. Well Sir, I think I know how it looked then for I had never heard of a Roman or his camp.

In after life I began to think of that curious old hill and I noticed from a starting point the old fox earth on the top of the rabbit warren in the first field began the rocks commonly called Ightham stone, the hardest and best in England and was given the preference for Macadamising the roads about London. From that point on the top of the hill to opposite the coal wharf was solid rock from the brink of the hill some distance back...

T

Thunderstones 26  
Tertiary flint implements 41  
Trosley 16  
Tobacco, see 2 and R  
Trade tokens, Ightham 6  
Taylor and flint implements 58

Extract from a Grant Allen letter, dated September 23<sup>rd</sup> 1892. '... from what I have read, they seem to be of immense importance, and will probably indicate for us the sort of evidence we may finally expect to obtain of the existence of Tertiary man or his predecessor. (to Mr Anning.)

U/V.

Lucas on Oldbury, continued:

'...from the brink of the hill opposite Elve's house every morning for a long time, Master Fry, an old old shrimp peddler, who sold shrimps in and around the villages near by, and when he came to work on the hill he did not forget his old salute and at Six O'clock in the morning (and he had walked from Seal) he would shew himself on the highest point on the edge of the hill and salute all



below the hill with his usual stentorian voice, the same as when he sold shrimps in our village "New shrimps, nice, large shrimps more large shrimps" Then step back and pry rocks or break them until six O'clock then start for Seal to get his supper and sleep. I said then as I say now "poor old Fry".

All the stones found below the hill were loose stones of the same kind as the solid rocks. Old Fry's salute was cheering and made the valley ring. I wonder now how it was possible for a man getting only 2/ a day...'

Visitors 29

Visitors distinguished 0

October 14<sup>th</sup> 1892 'Next day after meeting Dr. Evans – introduction to Homer's Iliad.

[Scepticism is as much as the result of knowledge as knowledge of scepticism. To be content with what we at present know is for the most part, to shut our ears against conviction, since the very gradual character of our education, we must continually forget and emancipate ourselves from knowledge previously acquired, we must set aside old notions and embrace fresh ones, and as we learn, we must be daily unlearning something which it has cost us no small labour and anxiety to acquire'.<sup>2</sup>

W.

Lucas on Oldbury continued:

'... and keep a family, his wife and self, and then cheer up two hundred men at six O'clock in the morning after walking three miles.

The works at the top of the hill were about 3 feet thick and rested on rather tougher sandstone or hassock and below that was ground in which a man or a fox could soon dig out a cave which would be dry and just over the hill what was called the "water Flash pond". I never knew it to be dry and this would serve a large camp for all purposes and I don't see why the Roman camp could not have a number of caves in that locality.

But wherever a cave may be found, and I think there must have been a cave on or near Oldbury Hill, smugglers have used these dens. Perhaps not more than a hundred years ago. And you like me must cudgel your brain and begin right here to find out who were smugglers long after the Romans left England, and who were the last of the smugglers and ask the foxes if in their dens they have seen anything of the remains of the smugglers, or the weapons of war belonging to the Romans. Foxes are not fools, no doubt they visited the places when the Romans had their last supper and when the smuggler went to eat his last meal the fox found the place. Or perhaps the fox dug the hole for a cave and the smuggler enlarged it.

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<sup>2</sup> This section has been transcribed exactly as it appears. It is not part of the on-going Lucas quote, which resumes, and concludes, on the following 'W' page

I think every thought of finding a cave on Oldbury Hill is rather visionary, as the old rocks on top of the hill and the loose stone below the hill were taken out by every one that worked there and each day about (see back letter D)’<sup>3</sup>

Well sections 2

Well Hill 24

Well borings, Hadlow and elsewhere

Wealden Pebbles 35

Wrotham Ward 50

Walter H. White 13

Warner on Druid Chorus, Down derry down 59

Wallace on oldest palaeoliths 33

Wallace on man’s progenitor 21

XYZ.

‘Shoreham 11<sup>th</sup> May ‘Thanks for the very pretty and very good photograph of the rock at Oldbury. If the specimens from Ash were more finely finished than usual I should like to see it before you send it to Bevington. If not a sketch of it will do. Could an excavation be made at West Yoke? I hope to get there next month if the ground is not in crop JP.’

BH notes some of the distinguished visitors to his garrett, which includes, Percy Wyndham, the brother of Lord Leemsfield and Pitt Rivers among several other notables.

Letter from Sir Joseph Prestwich dated May 8<sup>th</sup> 1890:

... ‘I hope you are making a mark on a large map of all the places where you have found:

1. Flint implements
2. Chert and Ragstone
3. Oldbury stone
4. Stained flints
5. Quartzite pebbles

I think you told me you had found no drift on the watershed between the Darent & Shode, which I take to be between St. Clere and Chart farm. The lowest point marked on map is 349ft. Is that the lowest point?

I hope that we may now expect warmer weather to get about soon. Mr Loveland has just had very sad loss in the death of his second daughter after a few days illness. J Prestwich’.

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<sup>3</sup> This last, bracketed, remark is written in red ink below the conclusion of the Lucas quote

P.1. Dated, January 2<sup>nd</sup> 1878, an account of where, and at what level on the chalk plain OD, Oldbury stone had been found, apart of course from Oldbury Hill, followed by the locations at which BH found chert and Kentish rag stone.

Oldbury stone sites:

- Terry's Lodge 770
- Wrotham Hill 720
- Ash Church 497
- North Ash 460
- Fairseat 690
- Kingsdown 500
- North West of Darenth Hulme 420
- Bean Wood
- Birches 763
- (South Ash patch ... piece)

Chert sites:

- Otford crest 670
- Cotmans Ash 660
- Wick Farm 698
- Beech Lees Wood 700
- Terry's Lodge 770
- Bean Wood
- Well Hill
- Eynesford or bed 330
- Cobham
- Cobham

Ironstone with quartz grains sites:

- Otford crest 617
- Ash 520
- Terry's Lodge 770
- Birches
- Shooters Hill

Kentish Rag sites:

- Eynesford or beds 330
- Well Hill
- Bean

‘Ochreous gravel & implements’ which specifies where implements have been found:

- Eynesford or bed 330
- Kingsdown 550
- West Yoke 460
- South Ash 500

- Strawberry bed 520
- Plaxdale Green 640
- Kingsdown 550
- Fairseat 697
- Plat Farm 695
- Vigo 690
- Terry's Lodge 770
- Drain 723
- Birches West 750
- Birches East 763
- Wrotham Hill 750
- Bower Lane 520

Quartzite sites:

- Ash Plain
- Pink's bed
- Kemsing crest
- Terry's Lodge
- Bower Lane
- Wrotham Hill

BH then moves on to the main site, Oldbury Hill and the immediate surrounds. These include the spring and its stream that lead to the 'Waterflash', the south of Raspit Hill, Romney's Wood, Bay Shaw and the Busty as well as Tomkin's field.

A small sketch accompanies that found at Basted before BH describes sites further afield at which this stone has been found. These include Sheet Hill, Dunks green, Hadlow pit, Fairfield, Goose green, Gover Hill, Yaldham, Barming Heath, especially the footpath south of the Railway station that heads east to Maidstone, Limpsfield, Ash Plain, Kingsdown and top of Swanscombe Hill. This continues on following page.

P.2. Here BH Notes that in September 1893, tanks were dug close to the stream and, at a level of about 20 feet deep (BH's estimation) blocks of Oldbury stone were found. There followed a 'clayey seam and Kentish rag'. The digging was done by Manktelow.

More well sections dug at Fen Pond, at the back of the farmhouse into 20 feet of gault loose red sand at 50 feet and white rock sand at 80 feet. Another well dug at Crowdleham house in 1884 to a depth of 123 feet. At Oldbury, Heasman's Mount Pleasant cottage, a well was dug to a depth of 75 feet and in the small Rectory garden a well was in 1884 by Belmont through yellow clay and hard, blue Kentish rag.

In Gordon's new villa, close by a cottage garden [not specified where] Sid Batey dug to 7 feet on the day BH visited on April 18<sup>th</sup> 1893, through a 'mass of gravel composed of black stone, ironstone, some blocks of Oldbury stone and a few pieces of weathered chert. Below that depth apparently coming on the Sandgate beds'.

In March 1888 BH visited Style Place in Hadlow where he notes a 600 feet deep piercing into Weald clay yielded a water depth of about 8 feet in the well.

In the Crown Inn in June 1894, Mankelow dug to 46 feet through loose sand to reveal black ironstone at the bottom.

P.3. More well section sites recorded, some of which have the depths noted.

- Harrison 300
- Chequers
- Vennells
- Mists
- Stanley's
- Ightham Place (40)?
- Mobbs
- Oldbury Place
- Prestons cw, Folkestone] beds, new pierced LGS
- Leonards (Folkestone beds)
- 1889-9 Saxby's Villas 95 level Biggs gate 324
- 1889 Warren. I Wakeman level 400

On July 20<sup>th</sup> (?1889) a boring at Ingrams of only 2.12 feet revealed a running stream in which a piece of paper was thrown showing a west to south-east flow.

BH notes that, and entry in his diary for Wednesday March 6<sup>th</sup> 1867, Geo Summers and Geo Holman who were building a wall to contain the Busty, noted that the stream bed was 'one mass of Kentish rag'.

More local well levels recorded.

- Barrister Royal Oak 69
- Usherman Pilgrim's Road 125
- Tomkin 56
- ?... cottages 56
- Malyam cottages 1887 9 inches of water
- E C ?... 300 [feet] to water June 24<sup>th</sup> 1885
- Diprose Bell Vue 58
- King's well 75 12 feet of water
- Town House 28
- Ightham Place, Dr Walker 46?
- Will Monel's cottage, Oldbury about 20 feet
- Heasman's, Oldbury 66

Another list of places, including Nash Mills, the home of Sir John Evans, and Dover, Calais and Hythe, follows with some figures indicating depths till the water table was reached.

In July 1889, BH went to Telegraph Hill, Swanscombe via Ash.

On August 20<sup>th</sup> [?the same year] he went once again to Swanscombe via Gravesend, Greenhithe, to Milton Street where he met Professor and Mrs Prestwich.

P.4. A description of the plan for a visit of the Geological Association to Ightham and district. BH of course features and there is the inevitable plan to see his implements, said then to be in excess of 400 [I think this is probably from all eras though not including his eoliths].

Under the general title 'Notes copied at various times' is a short extract from the *Geological Magazine* of ?1847. The entry is entitled 'Ailles' written by Kinahan.

Another extract from the *Geological Magazine*, p 70 entitled 'Sea, Rain, Frost' written by Macintosh with footnotes by Foster and Topley. The first section deals with the rate of attrition of the escarpment as a result of the streams running on it...

P.5. Continues from previous page. Here it is concluded that the longitudinal streams that ran parallel to the chalk escarpment, are mostly not immediately below them and, just like the Medway River, they run at some considerable distance from the cliffs. The absence of river-associated gravels immediately below the cliffs is noted.

Macintosh is cited putting a counter argument to that of Foster and Topley as to the origin of the gravels and 'greyweathers' associated with the Medway, which he suggests, are not of fluvial origin. He further suggests that neither rain nor river action was responsible for 'scooping out' the cliffs. He concedes however, that the denudation along the course of rivers and the bays and coombs of the chalk escarpment, form a distinct geological phenomenon and require a separate explanation.

Macintosh's explanation of 'trail follows in which Osmond Fisher's thoughts on this phenomenon are cited. He says; '... the superficial angular debris, earth, loam from which our slopes and hills partly derive their smooth and rounded forms is not a disintegration in situ, but has been carried or driven along by a simultaneous wide spread agency'.

Skertchley is cited in relation to his conclusion that the palaeolithic implements and Pleistocene fauna are not confined to the drift of river valley systems but found also in gravels belonging to prior drainage systems which cut across the present valleys.

Ramsey is cited re: the time when Neolithic culture developed in the Ightham area. The greater difficulty of estimating the age of Palaeolithic activity is noted. He expresses the belief that humans lived in the region in interglacial times...

P.6. Continues from previous page... and even perhaps in preglacial times. He goes on to suggest that humans may well have constantly occupied the area that is now the south of England in the colder of glacial periods. BH copied this on April 26<sup>th</sup> 1882.

There follows what may be a citation from a book or journal but which could also be a letter to BH. In it Skertchley proposes a distinction in geological/archaeological

time between 'early, intermediate and late Palaeolithic' with the first being older than the boulder clay and the last two newer. This is dated June 1883, Jermyn Street.

The next entry is an extract from Laing p 113 in which the Abbe Bourgeois's flints are discussed. In it the human origin of the flints is confirmed by use of ethnographic comparisons between the so-called Thenay flints and the tools of the Andaman islanders. There is some discussion of the characteristics of flint flaking that confirms human workmanship.

There follows a short piece on the tradesmen's tokens of Ightham. They are listed as follows:

- 362 obv. Harry Greene. His halfpenny (in 4 lines) Rev. In Ightham Kent George and the Dragon
- 363 obv. John Waghorne = The Marcus Arms. Rev, In Ightham = The Marcus Arms. Rev in Ihtham 1666 IMW /4
- 364 obv. William White = The Marcus Arms Rev of Ightham in Kent WW ./4

P.7. A seven-verse poem entitled 'Ightham Mote', dated both 31<sup>st</sup> July 1889 and August 4<sup>th</sup> 1889. Signed 'AMB' (Montgomerie Bell).

P.8. April 7<sup>th</sup> 1893. Spurrell on the Dunstable district. 'Yesterday I visited W G Smith and had a long afternoon looking over his county with him. It is a curious district – a plateau piped all over in large and very irregular hollows in the chalk presenting an interesting geological problem. Note – I consider that you work with increase in value – as it is pushed the greater the number of specimens you can dispose of to different museums the more the other museums will wish for them'.

From here to half way through page 10 is a list of levels of sites frequently mentioned by BH, in and around Ightham:

- |                             |                             |
|-----------------------------|-----------------------------|
| ➤ Leather coat corner 273.5 | Ivy House 374               |
| ➤ Petham cherry ground 320  | Guide post Styles 331       |
| ➤ Milestone 365             | Park farm near 300          |
| ➤ Letter box in wall 408    | Tumulus Boro' Green 300     |
| ➤ Seven Vents 545           | Baptist Chapel 304          |
| ➤ Rocks, Middle Wood 600    | Station 300                 |
| ➤ Heath Cottage 673         | Rock House 229              |
| ➤ Crown Point Milestone 506 | Long Pond O.houses 298      |
| ➤ Fountain, Seal Chart 566  | Lock-up Wrotham 503         |
| ➤ St Lawrence School 641    | Devils Kitchen Rd 611       |
| ➤ Ivy Hatch pump hse 552    | Field above to left 730     |
| ➤ Beacon Mount House 560    | Wood 730                    |
| ➤ Water Flash, 560          | Guide post Basted Land 280? |
| ➤ Water cress bed 190[?]    | Basted Hill, near 196       |
| ➤ Crowhurst oast house 300  | Caroline bridge 190         |
| ➤ Plaxtol church 363        | Winfield Mill 172           |
| ➤ Shingle Hill 700          |                             |
| ➤ Mote stable 300           | Bourne farm 200             |
| ➤ Milestone, Fairlawn 355   | Ducks 200                   |

- Wrotham church 441
- Bull Inn 413
- Spout, close to 150
- D[unks] Green chapel 200

P.9. The list of levels continues:

- Winfield cott, Crouch 379
- Carter's Oast 384
- Guide post, Old Soar 400
- Dark Hill top 278
- New bridge Milestone 255
- 
- Church belfry door 315
- Coney field gate 312
- White gate lodge 324
- Court Lodge opposite 336
- Abbot cottage, Fenpond 313
- Yaldham lodge hse 422
- St Clere lodge hse 515
- Exedown stone 770
- Old Terrys Lodge 760
- Old gate hse 758
- Clay cutting 350
- Next south 349
- S by gate near Shaw 361
- 
- Next 100 410
- Junction Cop Hall 435
- Coach Rd gate hse 435
- Bank Shaw 410
- Near Buley North 414
- Upper Buley
- Buley bar
- High Cross 516
- Ivy Hatch
- 
- 
- Hadlow District
- Oxenheath mill stream 100
- Goose Green gravels 135
- Pond farm 97
- Hextall hse 71
- Boroughs Oak 49
- Hale Place 50
- Beltring 44
- Points on chalk escarpment
- Birches corner of 766
- Highfield hse, Knockholt 787
- Titsey park, above 866
- Old gate house 298
- Wheelwright's shop 308
- Crickett's farm sand pit 300
- Rectory Lane Caves 312
- Peckham field 320
- M... Well 384
- Milestone 365
- Pillar box 408
- Melbourne hse 435
- Next 100 463
- Belle Vue 480
- Middle wood 493
- next 100 501
- Seven Vents guide post 540
- Tonbridge Rd
- Bigg's gate to field 324
- Leonards 354
- Rectory Lane Farm hse 383
- Gate footpath 399
- Darent Basin
- Kemsing Station 295
- Neat's ark 266
- Seal 327
- Otford race course 300
- S Chart brick yard 534
- Seal Hill 468
- Stone Pit
- James Cross
- Fuller st
- Broomsleigh
- Styants Bottom
- Starvecrow, Little Park Leybourne
- Shipbourne church 246
- Stream level S 189
- Head Summit 286
- Little Park, Dane park gdn 274
- Road junction 253
- Trig bridge S 103



P.10. Following the list of levels BH goes on to list the chalk escarpment levels:

- Cotmans Ash ochreous spread 660E to 667W
- Obram wood 700
- Drain farm hse 710
- Drain patch 723
- Old Terrys lodge 760.5
- Plot farm 674
- Fairseat guide post 697.8
- Vigo turnpike 688
- Fowlers Lane, east of island [no figure recorded]
- Holly hill 641

He then records the physical features of chalk according to Whittaker, in the Thames Valley, where he says that 500 feet of clay and Bagshot sands have been denuded and the Isle of Thanet, where he notes 600 feet of London clay and lower Tertiaries [does not mention denudation in relation to this formation].

He notes that the topography is undulating with deep branching valleys crossed by larger valley streams flowing mostly in the direction of the dip slope. He comments on the difference between the 'fine open downs' where the chalk is 'bare' with only a few trees and where clay-with-flints is present when ploughing is possible and 'many beeches appear'. Some Tertiary outliers occur of which it is said 'these can be detected at some distance by the practised eye'.

P.11. Mention is made of the abrupt rise of the chalk ridge from the underlying Upper Greensand and Gault.

The Lower London Tertiaries are noted to be less marked than the chalk but have an effect on the topography of the land. The Addington hills take in Hayes common and Holmswood. The Oldhaven beds occur from Bexley Heath to Blackheath and positively affect the beauty of the country around Chislehurst.

London clay, it is said, gives rise to a marked escarpment, which sometimes rises to around 400 feet [OD] in a long and gentle incline. Here the highest hills are covered with Bagshot sands, which give rise to high, heath covered hills. Some examples of places where this phenomenon can be seen are Virginia Water, Claremont, Oatlands, Surry Hills, Esher, Weybridge, Eversley, Aldershot, Ash and Chobham.

Denuded outliers are said to provide evidence of the above where the chalk and London clay must have spread across the Weald and the Oldhaven beds are said to have derived from the chalk, which in some cases they cut through.

The sea, rivers, rain and frost are the most important agents of denudation and it is stated that England's separation from the continent of Europe was brought about by the actions of these agents.

P.12. There follows a citation from P. 397 of Woodward's *Geology*. It is congruent with the arguments on the previous page. Dartmoor, once very 'lofty' is said to have

supplied the chalk in that area with quartz. Scotland's estuarine beds of possibly as far back in time as the late Cretaceous, point to the existence of land as far north as the Hebrides.

P.13. Copy of comment from Mr Chas Elton about an article that appeared in the *Cornhill Magazine* about the Roman presence in the south east of England and a possible road between Chichester and Lymne and on throughout Kent. He suggested that this may have been a route between Cornwall and Thanet or Sandwich but thought that what had been written only vaguely represented what he had said. Dated November 1889.

Mr W H White cited on the discovery of a piece of bronze that was given to him by a man working on the Fairlawn estate under his 'superintendence' and which had been found in Hurst Wood, somewhere close to the rear of 'Rats Castle'. He discusses some of the ways in which ancient bronze might be distinguished from modern.

Small clipping from *The Art Journal* re: Julia Cartwright's series of articles on the Pilgrim's Way.

Clipping of George Payne's article on The Pilgrim's Way.

P.14. In red copper plate handwriting 'The Pilgrim's Way' and alongside this in BH's more usual handwriting 'The Bronze Axe. Grant Allen, *Cornhill* November 1889'. GA argues the case for tin from Cornwall having been exported widely across Europe and into the Middle East. He considers that the Pilgrim's Way, whilst having got its name from use in medieval times, is actually an ancient trackway and has been shown to have been used to transport tin across the country, west to east, to Sandwich (by Mr Charles Elton). He observes that caches of ingots, deliberately buried (?tin or bronze) are still to be found.

P.15 Parish boundaries, referred to as 'Redway or Ridgeway' in a piece copied from Spurrell. Small map of area between Maidstone and Mereworth copied by BH and intended to show the site of the Pilgrim's Way between these two places. He regrets the loss of the track resulting from the remodelling of the Parishes. Goes on to qualify and explain the terminology which he traces back to the old [Anglo Saxon] charters. Concludes with a particular mention of an old road between Ightham camp and Swanscombe and notes that 'the occurrence of older roads than Roman is less marked'.

P.16. A printed extract from an article on Trosey or Tottiscliffe and the Coldrum. In it there is an interesting description of the church, which is described as the oldest in Mid Kent.

This is followed by a handwritten copy of an extract from a paper, p 476 on stone circles in Cumberland by A L Lewis. This is full of reference to the Bible, the Talmud and holy places in Israel taken from Sir Charles Warner's work *The Temple and the Tomb* in which stone, direction and high places are discussed in relation to what is holy. The inference is clear that The Coldrum, being stone and on a high ridge, is likely to have been a sacred place.

P.17. Headed 'Marston, Stanley, Blackmore' this entry seems to have been copied from a journal, newspaper or is perhaps from the abstract of a lecture. It mainly deals with Henry Morton Stanley (of 'Mr. Livingstone I presume' ... fame) and includes many references to Egypt and other parts of the world that Stanley was said to have visited. Undated.

P.18. A copy of an exegesis on Oldbury stone by Barney April 19<sup>th</sup> 1889, which he says he will send to *The Geological Magazine*. He notes that this stone is composed of microcrystalline quartz. Which, when viewed under a microscope, showed up green.

This is followed by a copy of a published article (vol 11, p 269, ? date and title) written by Prestwich on 'Mid Kent Seams of Chert'. The 'peculiar green, red and yellow varieties of chert...' found in Oldbury Hill are noted as being easily recognisable.

The article on Stanley from the previous page continues with reference to an old, one - armed shepherd from the South Downs, around Beachy Head, called Stephen Blackmore who was the first to order Stanley's *In Darkest Africa*..

P.19. Copy of a publication by Greenwood about 'Rain and Rivers' in the *Journal of the Geological Society* November 1865, the preface of which is dated November 20<sup>th</sup> 1880. There is another date, November 1865 [which may represent the first date of publication]. This deals with an earlier entry in which Foster and Topley's views on the processes involved in denudation of the Wealden dome by rain and rivers is rather dismissed, it being said that '...there appears to be a strong tendency to the rain and river theory among the young practical geologists of the government survey who have no theories of their own to defend'. It is noted that constant atmospheric disintegration and, as a result soil is constantly forming which, as a result of the erosive processes caused by rain and rivers, is constantly moving from high to lower places and, from river valleys to the sea. Further, it is observed that the life found in the sea is restricted to this environment so, the question is where are the means of preservation of ancient land life? It is said the '...the most ancient museums of land life are caverns, filled up lakes, and drift and alluvium – things which, speaking geologically were formed yesterday and will be gone tomorrow'.

There follows a continuation of the article from p 16 and a suggestion that menhirs should be seen as emblems of ancient deities and the Mount of Olives which has a connection to sanctuaries and stone circles and sacred places generally.

P.20. An account of rainfall in the south east of England and northern France by Joseph Prestwich [mean annual is 24 inches for both areas]. This is related to the potential there is for such a phenomenon to alter land surfaces.

An account of the crossing of the frozen Seine in January 1891.

P.21. An extract from *Darwin's Life* 391 Vol 1, dated 1854 in which a letter from Sir Charles Lyell discusses the clay-with-flints capping of the North Downs. In it Lyell recalls a meeting of the Geological Society in which Prestwich, as reported to Lyell by Rupert Jones, 'brought forward your exact theory, that the whole red-clay-with-

flints over the chalk plateau hereabouts is the residuum from the slow dissolution of chalk'. The reader is advised also to refer to p 35.

Copy of a letter from Joseph Prestwich dated September 20<sup>th</sup> 1891:

'You will be glad to hear that the committee of the British Association have granted £15.00 for excavations on Oldbury Hill, of which it is to be hoped you will take charge. I am not sure yet whether it includes Bower Lane, which I also named. I had a note from Mr. Bell saying what a pleasant day he had at Ash.

There is still some doubt about the relative position of the drift of chert fragments flint implements to the red clay with flints. There is some reason to suppose the former is the older, on the other hand, I have never seen such a drift under the red clay. It may be that the clay wraps round, but generally it seems to pass under or do the implements belong to the red clay? To assist this point I want an excavation at Bower Lane, the Lenham beds and certainly under the red clay'.

BH quotes Wallace as telling them that 'our last chance of finding the vastly remote small brained and small headed progenitor of man on the wildest area of land in the warmer region of the earth which has not been submerged since Eocene or Miocene times'.

P.22. Copy of an article by Dr Evans on unwasted land surfaces. 'There is indeed, no reason why these implements should not occasionally be found on the old land surface wherever it exists in a state but little altered since the period of the deposit of the freshwater drift of the valley's: for it can only have been by accident that the implements became mixed with the debris carried down by the primeval rivers which deposited these beds of gravel, sand and clay'. Notes on further discoveries of flint implements in the drift'. *Royal Society of Antiquaries* 186<sup>4</sup>.

Following these thoughts from Evan's work on old land surfaces is another on the same topic by Spurrell entitled 'Old Surfaces of the North Downs Ridge':

There is, I fear, no opportunity in this part of England (Erith) of discovering, or hoping to discover with certainty, any implements in the ancient river courses, or in the narrow upland ridges of an age later than the latest glacial times. Though the ridge of the North Downs may have been land at the time when the area covered by the present Thames, and northward of it, was an icy sea with standing icebergs (of the chalky boulder clay time). Yet the strip of high land, now so narrow and the subsequent denudation from subaerial causes has been so great in the lengthened period following, that man if he chanced to live just in that place must have presented himself rarely and been but a poor creature. In the faraway times of which I speak, doubtless the soil was strewn with the lost or discarded implements of war or the chase, but most of these have been carried by rain and ice into old river courses and at last into the sea; this is why

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<sup>4</sup> This is probably a page number, there is no indication of the year in which it was either given as a lecture and/or subsequently published

river gravels produced relics in such a great abundance compared with land surfaces’.

BH records that Philip Lake BA FGS, came up on Sunday December 6<sup>th</sup> 1891 and on their return Shrivell wrote to BH to say how much they had enjoyed themselves and expressed the hope that the experience had been a revelation to Lake as he had been a sceptic re: Tertiary Man. He [Lake] confessed to Shrivell that BH’s argument in favour of such a being was the strongest he had seen.

P.23. A copy of a piece by Spurrell on gravels:

‘As it is of great importance to have the descent of gravels from the highest to the lowest levels – inspection of those containing implements (and presumably the few stones left on peaks would be least likely to contain implements) for the purpose of learning whence the implements might have been derived along with the accumulating gravel. I am desirous of finding flint gravel on the ridge of the greensand. I believe that at Crown Point end of Oldbury Hill there is no gravel flint left in situ but perhaps on the broader table above 600 feet at Raspit and around it a little original gravel might be described .

When looking for pits and neoliths have as careful an eye to flint stones either sub-angular or Tertiary, as for implements on the southern edge of the Greensand too there is a chance of finding flint. I notice a spot Shingle Hill the name of which is suggestive and it is near Starved Crow, a place which I fancy I once found some pebbles but it is a long time ago. Could an implement be found at 500 it would be of interest – not to speak of 600 ft.

It appears important to learn how low down the level in Plaxtol valley Tertiary stones are found. I fancy that the beach, which I went over, was just above the 300 feet level and apparently below it. Are the round pebbles found in the bottom of the valley?’

The next piece is by Joseph Prestwich about the Cobham gravel spread and is dated September 9<sup>th</sup> 1889 and appears to be part of a letter to BH in which JP is instructing him which gravels to search and also asking him for more detailed information:

‘You will find the gravel of Cobham capping the ridge which extends eastward from the Mausoleum through the woods towards Rochester. There is I think a public path all the way and it is a delightful walk. The Mausoleum is in the park near the village of Cobham. Please get down the names of the places on the chalk plateau where you have found sprinklings of chert and brown flints. I don’t mean single specimens.’

P. 24. An extract from Murray’s *Kent* of 1874 on Well Hill:

‘Ascending the hill from Green St Green towards Chelsfield we soon rise above the drift gravel and come again upon the chalk. When however we have got more than half way up the hill, the lower Tertiary strata which we had left at Farnborough, reappear on top of the chalk and are well exposed by the cuttings along the lanes along the sides. They must therefore at one time have extended

over the intermediate space from which they have since been removed. Further, the extreme top of the hill is capped by a peculiar deposit of very peculiar gravel, which is quite distinct from the Woolwich and Blackheath pebble beds on the one hand and from the lower drift such as that at Green St on the other.

The flints are less rolled than those of the former strata and more than those of the latter. The whole gravel is very white and contains beside the flint pieces of chert and bits of quartz from the Greensand which lie south. In the first place it is only 200 to 300 square yards in extent, and there is no other bed of gravel in the immediate neighbourhood offering similar characters.

It is the only remaining representation of a stratum, all the rest of which has perished, and offers in fact a page in the history of the district which, but for this slight record would have been entirely obliterated. Secondly though it is now the highest hill in the neighbourhood yet as a gravel can only be found by water and water only remains in hollows it must at a recent period have been at a very low level.

Green St Green is situated in a trough which has been excavated out of the chalk and which is partly occupied by a deposit of drift gravel. This drift is a course, clayey gravel containing flints of two sorts, both of which have been excavated by the action of water from the chalk. The one sort however after its removal from the chalk has been subjected only to wear and tear sufficiently to render blunt the sharp edged. The second description of flints have a different history. They have been stained from strata called the Woolwich beds and having been subject to great and long continued action of water are reduced to the form of round pebbles. Bones and tusks of mammoth have been found in this gravel.'

The last few lines are written vertically in the margin.

P.25. Two strips of a newspaper article remain and two 'ghosts' of the same article are evident. The first article may in fact be the later part of the second clipping and describes the geology in which flint implements have been found and describes how it is possible to discern the conditions in which the implements have lain. The second is a recording of a meeting of the Anthropological Institution in which Dr Evans congratulates BH on his discovery of 'a magnificent suite of implements'. The Pleistocene formation of the area is outlined. Bell's discoveries at Limpsfield are also commented upon.

In BH's handwriting is a copy from a publication by Elihu Burnett on Capern, the Bideford Poet p 271.<sup>5</sup>

P.27 (there is no p. 26). A copy of an extract from Evans on 'Physiography' p 11:

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<sup>5</sup> Elihu Burnett and Edward Capern were walking companions. The former is known for his publication in 1869 of *Walk Around the Black Country and its Green Borderland*. He also wrote about Edward Capern (1819-1894) the so-called 'postman poet' whose poem 'The Lion Flag of England' memorialized the Crimean war for Victorians.

‘Both in clay districts and those formed of impermeable rocks it frequently happens that there are superficial patches of drift gravels or sands. These being of an absorbent nature are, after heavy rains highly charged with water, some of which is subsequently delivered from them by gravity at the lowest outfalls, forming what are called in some districts, land spring.

On permeable rocks, on the contrary, there are occasionally patches of impermeable clay, such as the Tertiary outliers which occur on the chalk: and these being again capped by permeable beds form small water bearing basins. The position of villages on chalk hills is often due to the circumstances that a supply of surface water is thus made available. Indeed as a rule there are hydrological reasons for most sites of human occupation.’

Swallow holes. Where chalk is overlain by stiff clay through which however in places it penetrates what are known as swallow holes are formed and the rain falling on tracks of impervious clay forms streams, which find their way to such swallow holes and disappear in the chalk. In such cases it seems probable that by this continual delivery of water into one place the lines of least resistance in the chalk have been widened out by combined mechanical and chemical action so that subterranean water courses are found, The caverns which run...’.

The concluding sentence runs horizontally along the inner margin, which now is not exposed and therefore cannot be read.

P.28. BH begins with a weather report for the year 1888/1889. Very heavy rain and lightning with churches flooded and roads blocked with debris. Hailstones estimated to be 2 ½ inches. R Rogers and Mr James’s names follow this entry.

More weather for Monday September 3<sup>rd</sup> 1889 of such note that no storm quite like it had been recorded for twenty years with Chart Farmhouse being struck by lightning and burnt down and four farmsteads in the Braintree district suffering a similar fate.

There follows a homily to scientific sacrifice, quoted from Buchan’s *Man*. This is BH giving himself either a pep talk or is simply a justification of his archaeological activity.

P.29. July 30<sup>th</sup> 1889. BH records visitors from Penarth, near Truro, one Nicholas Whitley who stayed over till August 1<sup>st</sup>. BH conducted him around the most important sites.

August 8<sup>th</sup> (?1889) BH entertained Leonard Morrison who was researching the St. Clairs of England (the St. Clere/Clare estate was close by at Yaldham). BH obviously told Joseph Prestwich about Whitley’s visit and JP replied noting how sceptical Whitley had always been and hoped that BH has converted him.

More visitors on August 3<sup>rd</sup>. W. Busby and ? also Pattison FGS.

September 7<sup>th</sup> 1889 Rev, Chasvesey visited.

September 3<sup>rd</sup> 1890 Rev Mayens Mello and Mr Noltyd, wives and friends visited together with the brother of the late General Pitt Rivers.

September 14<sup>th</sup>. Percy Wingham from Wiltshire, a near neighbour and friend of General Pitt Rivers.

Small box-like sketch described as a parallel. McDonald

P.30. October 22<sup>nd</sup> 1889. BH to Cobham and Rochester on a fine day following heavy rains the day before. BH met Lewis Biggs with whom he went to inspect some old books. One of these BH says is a Breeches Bible, he explains why it is so named [though he does not commit this explanation to his entry here].<sup>6</sup> The second was a copy of Lambarde's *Perambulations of Kent*. It had many pages missing and was offered by Biggs to BH who accepted it gratefully.

Called in on Roach Smith who was found ensconced in his den surrounded by books, papers and pamphlets. BH quotes RS's response to prehistoric archaeology:

'Of no interest, prove nothing in fact prehistoric archaeology is played out. Boucher de Perthes proved all to be proved etc, etc, etc'. BH responds thus: 'I pity the poor old man, the non-progressionist, a case of decided arrest of development. Oldbury only of interest in the light of a Celtic Oppidum, and caves and rock shelters he led me to infer not worth the trouble of investigation. Planted his foot firmly on Mr Spurrell with his absurd theories. As to deneholes ?Phinty and old Bland of Hartlip far before him'.

BH records his walk along the lower footpath to Cobham noting the evidence for the transport of Wealden debris containing chert, Oldbury stone, and rag. Continued to the park, which is at the highest level and sketches the geological stepping which characterised his journey.

P.31. The account from the previous page continues. Notes the chert cast out of a rabbit burrow, quite close to the Mausoleum. The 'spread was non-existent'. Lunched at the Leather Bottle and home via Meopham and Fairseat where he found some Tertiary grit. Reached home at 5.45 feeling '...not in the least bit tired'.

There follow some reflections on Gundolph's Tower (first Bishop of Rochester) with an extract from Parker's *ABC of Gothic Architecture*. Mallig Tower in West Mallig, is referred to as the remaining structure of a castle erected in 1070. Gundolph is recognised as the builder of The White Tower, in London.

Henry Walker comments on Ash finds at 520 ft OD – not elaborated. April 18<sup>th</sup> 1884 Part of a letter, possibly to BH in which he says he is 'glad to hear such good things. You have now another clue to the physiography'.

Small sketch of what appears to be a valley.

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<sup>6</sup> This 1759 Geneva edition of the Old Testament is so-called because of the translation of a passage in Genesis 3-7 'and they sowed figge-tree leaves together and made themselves breeches' not the more usual translation of 'coverings'.



P.32 March 1-4 1890. Snow, very cold March as register confirms. 'Phrenology' not elaborated upon.

Newspaper clipping commemorating the life and work of Sir Joseph Prestwich entitled: 'Echo Portrait Gallery. Prof JP DCL, FRS'. As the title suggests, the piece is a tribute to his scholarship and contribution to geology, anthropology and archaeology. It details the highlights of his career as a geologist and notes the many accolades that he was awarded, among which was the Telford Medal from the Institute of Civil Engineers for his paper on 'The geological conditions affecting the construction of a tunnel between England and France'. At the time of the publication of the above article, Professor Prestwich remained in the chair of The Geological Society. His physical frailty draws comment as does his continuing capacity to produce papers. Concludes on P.33.

P.33. In BH's handwriting a copy of a letter from Wallace on BH's earliest Palaeolithic implements which asks BH to:

'...write a popular article giving an account of your discovery of them with all the main features of their form and peculiarities, and the special areas in which they are found – illustrated by outline sketches of all the chief types of form – and laying particular stress on the fact that each of these types however rude, are illustrated by numbers of specimens, showing how natural flint pebbles of suitable form have been selected and by being chipped on one side only have been brought to the required shape and edge. If you could write as you speak I think such a paper would be published by one of the good reviews'.

March 19<sup>th</sup> 1891. 'Bell on Tylor'. Tylor requests that Bell ask BH for a set of eoliths for the Museum [Museum not specified though probably the Pitt Rivers]. Bell says he wants him to pay.

March 22<sup>nd</sup> 1891: The following letter, part of which BH has copied, continues the theme of Tylor's request for lithic specimens.

'I agree from my heart with you in the fame your researches are obtaining and hard deserved. They throw a fresh light on the ages of Palaeolithic time, which were before inferred rather than proved: now they and this area made manifest.

I have now read the Professor's paper and with great pleasure and instruction. It is very moderate and very convincing. I shall not be satisfied with just reading'.

P.34. A page on well-borings in West Kent with a sketch of the filtering works near Tonbridge. The filter consists of 20 feet of rough gravel underlain sequentially with loamy gravel, quicksand and Hastings gravel.

May 24<sup>th</sup> ? year. Copy of a letter from Bell:

'I have now read the Professor's paper and slowly verifying every reference. What a flood of light it throws on our area. It does seem much clearer in many ways.

He does not, as far as I can see, make any distinction in age between the ordinary pals with definitely shaped flints of the Ash plateau and the old olds, or chipped flints of natural shape.

I have written to him, asking if he thinks it possible to do so. I have understood you to do so, and have certainly done so myself.

The geological evidence must be scanty, as if the whole previous surface has suffered from glacial influences, the surfaces and drifts would be much treated together. Yet I have thought that there was evidence that the S. Ash and West Yoke drifts were older than the Ash pal drifts on the same level. I understood him to place both as anterior to all glacial action in the district. I did not quote so apprehend him in the previous paper. ?... has your continued ?... .’

P.35. BH notes the number of places where Wealden pebbles may be found. They include, Hadlow, Dunks Green, where soft Wealden sandstone also occurs. He also mentions Dene Park garden, the area to the north of Starve crow and the wood near Dene Park lodge house, an area north of Barming, Aylesford and possibly Limpsfield. It also had been found in a cutting made for the new Science School at Tonbridge School. Further south, at Hartlake, west of the bridge and in a stream south of Puttenden are also mentioned as sources of this material.

Short extract from Professor Phillips’s *Antiquity of Man* which deals with aspects of the Somme. From the British Association meeting at Newcastle 1863.

Short extract from p 61 of *Water and its Teachings* on chalk and the clay with flints.

P.51 [pagination leaps from 35 to 51].

‘The lower Greensand, thickness of’. Taken from a paper by Professor Prestwich on the range of the Lower Greensand and the Palaeozoic rocks under London.

- Chalk total thickness 652 ½ feet
- At Kentish Town 645
- Upper Greensand 28
- Kentish Town 13 ¾
- Gault 160
- Kentish Town 130 ½
- 

‘Here the similarity ends. At the base of the gault a seam of 3-4 feet thick of phosphate nodules and quartzite pebbles were met with’.

Copy of a letter from Professor Prestwich dated October 29<sup>th</sup>:

‘I have received the tooth it is a remarkably fine specimen of *Mastodon* tooth but what species I could not say. I think it is foreign. When in London you should take it to the British Museum.’

Copied from a post card [undated] Bell writes:

‘The tooth is a very fine thing, looks as much like mastodon as anything in your pictures, probably I should think, hippopotamus. Don’t give it to a museum unless the curator is exceptional. Museums at present less useful than private collections. Was much pleased to learn how you came across it.’

Another copy from a Bell letter dates October 29<sup>th</sup>:

‘Last evening I was looking at such bone ?rocks as I have, they are few, but I cannot see that your figure resembles a hippopotamus. A hippo is a pig, and has the teeth of a pig, especially of the under jaw. I think you must have a mastodon or an elephant. If mastodon, it is a great find and one...

P.52. Continued from the previous page:

... would wish to learn details of the deposit. I have looked out in *Ethnogra...* to find where mastodons have been found in England and it is in the red clay and another crag; and in Pleistocene times, how, when or where it occurred in English Pleistocene deposits depends he says nothing.

The mastodon is named from having teeth like little hillocks, breast like tooth, it means, such as you have drawn. Hope you will be able to show it to the professor. It gave me real pleasure to find that my article had so soon had a good effect. Hope it is only the beginning. AMB.’

There follows an extract from an unspecified book on mastodons which continues part way through P.53 and concludes with two lovely little sketches of a *Dinotherium giganteum* and *Mastodon augustidens*. The writer starts with an interpretation of the Greek, from which the animal’s name derives. This ‘elephantine mammal’s noted to have been extant in the Tertiary and post-Tertiary periods. Falconer is quoted as viewing mastodons as a separate species from ‘true elephants’ though the genus, according to him, includes ‘all elephantized species’ which had relatively simple and uniformly divided molar crowns with equal sub-divisions. Discussion about the further sub-division of the genus.

There are estimated to have been ‘upwards of a dozen species’, which occupied what is described as ‘a truly cosmopolitan range during the Pliocene and post-Pliocene periods’.

*Mastodon augustidens* is noted as the characteristic species of the Miocene but the writer also states that no ‘proboscideans’ had been found in Eocene period. The difference in size between today’s elephants and those, no longer extant, elephant-like animals from the distant past, is noted.

P.53. The entry from the previous page continues and concludes below with two drawings of *Dinotherium* and *Mastodon*.

There follows an extract of Prestwich’s work on the glacial period, which continues to P.54 and in which he suggests that the term pre-glacial should be understood to mean the earlier of the glacial epoch and that the lines are arbitrary. He goes on to suggest

that it should be viewed as two periods, that from the onset of the cold to its zenith, the time of maximum cold, and that time from the zenith to the termination of the cold. In the paper he says he adopts the usual divisions in which 'the so-called Glacial epoch represents a certain length of time when the cold was at its maximum and the others, the periods of first increase and last decrease'. It is in relation to the latter that he refers to Dr Croll's hypothesis of a term of 80,000 years of glaciation, based on the time estimated for the excavation of the valleys by the action of ice, though JP expresses his reservations about this calculation.

P.54. He says that he had been partially responsible for giving currency to this belief since he placed the oldest of the old valley gravels at the commencement of the post-glacial period though his revised opinion was that in the south of England and in France many of these valleys may date to glacial times. He says that he could never agree to the great length of time assigned to the post-glacial period. 'The adoption of a rate of denudation based on that of the present day always seemed to me open to grave objections, and in this belief all subsequent experience has confirmed me'.

It is his belief that in both England and the north of France, the valleys were excavated to a depth of from 80-120 feet in glacial and post-glacial times and he notes the difficulty in notion that this might have been achieved in a relatively short period of geological time and to the idea of the arrival of both flora and fauna some 240,000 years ago without change or some modification.

He judges the period of extreme cold, what he terms 'the glacial epoch' to have been between 15,000 – 25,000 years ago with the post-glacial ice melt occurring between 8000 – 10,000 years ago. He says 'This might give to Palaeolithic Man, supposing him to be of so-called pre-glacial age, if we be allowed to form a rough approximate limit on date yet very insufficient and subject to correction, no greater antiquity than about/from 20,000 to 30,000 years. ... should he be restricted to the so-called post-glacial period, his antiquity need not go further back than 10,000 to 15,000 years before the time of Neolithic Man'.

P.55. Letter from Bell to BH dated August 14<sup>th</sup> 1890, on the South Ash find: below which is the number 572, [which presumably is the number of the stone referred to below]

'... A great beauty, I wish we had come across one like it.

It matches very closely with the old one I have at Limpsfield from the brook, on the Oxted side. It is a fine old one.

It is doubtless to all appearance transitional in style: but inasmuch as roughly made ones are found at all times, I cannot build on a single specimen. I do think that the Ash types are as a whole ruder than others.

You know that there are exceptions, apparently of the earlier age: from weather. This stone is stray evidence in favour of its being an earlier stage, can say no more. Many thanks for finding it. AMB'.

A copy of another letter from Bell to Professor Green dated September 14<sup>th</sup> 1890:

‘I have just spent two hours with Professor Green, I was showing him the West Yoke spoil. He is a nice old gentleman and as much interested, took in the gravel bearings. What impressed him most was the rolled flints evidence of wear.

In this I think he is right. Weathering he truly says, may be accidental but such wear is an indication of age and movement, which cannot be gainsaid. And also when coupled with the weathered lot and then only is an argument in favour of proof of age by weathering alone. He is interested.’

The notes continue in red ink and appear to be a response from BH to the above letter from Bell: ‘Thanks for various notes: I am glad you have been out again with the professor. These are days to remember’. Dated September 30<sup>th</sup> 1891.

Again in red ink, a note from ?BH to ?Bell: ‘On Oxfordshire find. Nuffield near Nettlebed. Dear Sir, I am glad to hear of the discovery of the old types on the Oxfordshire hills. I know these very well and it is just the places I should have looked out for to find them’. Dated September 30<sup>th</sup> 1891.

P.56. Glacial striations. This may have been copied from a textbook but there is no attribution. It discusses the way in which rocks are borne along with the moving sheet of a glacier and then deposited at various sites along the way. Perhaps the important piece of information for the eolith idea is that even tiny grains of sand, borne along by the movement of a glacier, will not only contribute to the polishing and scarring of rock but leave ‘...fine lines as may be made by the smallest grain’ which would have been referred to as striae on eoliths.

There follows a piece by Bell on the Kempton gravels, dated August 11<sup>th</sup> 1890. He concludes that the gravel there was around 20ft deep in places and obviously a river gravel though it yielded no shells. He considered it to be ‘the finest expanse of gravel I ever saw’ and mentions evidence of ‘30 – 50 freshets of the stream’ at the base of which ‘man occurs and very sparsely in the centre layers. I got one or two stones, one a good Amiens type about 7 inches long. It was in 3 pieces when I got it as it is full of cracks, some of them pits which h match with our field specimens’.

P.57. Copy of a piece by Colonel Lane Fox (General Pitt Rivers) from a paper on the Cissbury Camp, Sussex, on flint implement hunting. In it, he commends flint hunting as an excellent means of discovering the prehistoric past since flint scatters are often associated with the practices of daily life, such as the building of camps and rings. He notes that it is equal to any field sport, and provides rather more healthy exercise than some. Continues to part way through P.58 where he explains that he spent a month walking the Sussex Downs in pursuit of the presence of man through his remains both monumental and flint flakes.

P.58. BH quotes some of the evidence gleaned from Professor Drummond’s book *Tropical Africa* on the footpaths of savages. Notes how direct these paths generally are and what distinctive features they form in the landscape being for the most part a ‘beeline’ though he seems to then contradict this statement saying ‘no fifty yards of it

are ever straight' since the natives never remove obstacles which they much prefer to circumnavigate.

There follows a copy of an extract from a paper by E Taylor on flint implements: not dated. It is taken from the *Transactions of the Sidcup Society*. The approach is from one of natural history and takes as given that development is always from the opportunistic use of unrefined raw materials, that is '...natural stones...' which later would have been chipped '...either better to fit the hand or to present a sharper point with which to strike'. It is a piece that BH would have approved of since it validated his theory of eoliths as the first crude implements of man and suggests that an examination of a collection [BH would have termed it a 'series'] would show how tool use developed from the opportunistic use of stones, through an initially crude stage of 'chipping' and later use of the sharp, chipped flakes as knives.

P.59. Entry from the previous page concludes.

March 24<sup>th</sup>. This piece seems to follow the theme of the preceding piece with an extract from Evans's writings noting the rudimentary nature of some of the stone tools from Amiens. These, he noticed, were often associated with more well-made tools and he urged caution in making deductions about chronology based solely on the character of individual tools.

Short, handwritten piece on the Ash stone tools re: the opinions of Evans and Prestwich. Evans is recorded as thinking that several of these stones were natural.

Newspaper, or journal clipping in which Dr Warner speculates on the meaning of old sayings, such as 'Down derry down' which, it is suggested, may have survived the centuries and reflect Druidic practices and beliefs.

P.60. Letter from Bell to BH dated March 11<sup>th</sup> 1890:

'You are a brick to make such a find (no 534). I can tell you that I am impressed more than by any of your or my findings.

On receipt, I at once went to Dr. Tylor, the keeper of the museum here. He is a great authority, none greater in the country: but our speciality, the antiquity of man and various degrees thereof as geologically proven, he has not had our special training. A pal is a pal to him, and very old, no more.

However I drew a section showing that I thought that this came from a long since denuded drainage line, and he at once took it up. "I see your point perfectly, you want to shew age upon age. This should most certainly be thoroughly gone into. You must take this to Professor Green (Mr Prestwich's successor)".

Well I have not shewn it yet to Professor Green, but I showed it to Mr Balfour, assistant at museum, and to Arthur Evans, son of the Dr and keeper of the Ashmolean. All interested but of the three Dr Tylor most truly appreciated the nature of the find. He also said at once. "I see you have examined the condition of flints in various gravels and deposits with far more intimate knowledge than I

can profess to have”. Shewing at once that he felt wherein his power of affirmative judgement was limited. I will forward to Mr Bevington. Ever truly yours, AM Bell’.

There follows a sketch of the section of Ash shown to Dr Tylor.

P.61. Copy of a letter from W G Smith dated 27<sup>th</sup> February 1890: ‘I shall not be able to get to London. I could see the Dr. Evans did not fall in in with all Professor Prestwich’s views, at any rate one of them. The number of implements you are able to find is wonderful. I should like to live near such a Palaeolithic “Tom Tiddlers ground”. If you ever light on any novelty let me know please’.

There follows a letter from John Evans at his home Nash Mills, not dated:

‘My dear Sir, I have had another more careful look at the Ash Flints. I think that 534 has in all probability been wrought, and that it has lost its point, either in the making or subsequently. Of course the Kingsdown example is a good one but I cannot see any evidence of the others having been picked up and used for chopping and hammering in the same way as one sometimes picks and up and uses a pebble now a days, but you can hardly put them on the witness box. Yours very truly, JE’.

Another letter, this time from Bell and dated March 12<sup>th</sup> 1890, Limpsfield, also refers to stone number 534:

‘... Just a few minutes to give you a line. I congratulate you most heartily on these two finds. I note that Dr. Evans says that 534 is in all probability worked: how he can doubt the working of it I do not know. In my judgement it is most undoubtedly worked and also in two if not three places, striated. The two chief striated surfaces being opposite to each other.

Still the first one impresses more the colouring is so deep as to and to one who knows the area and the spread so expressive. I sent (a) postcard asking for a striated stone, a good large one if possible. I want to take it to Dr Tylor and Professor Green along with these two stones if I may keep them so long – and do my best to persuade them on our views. It is very interesting in any case – and rather against our views prima face – that these two specimens are (1) the regular St Acheulians (2) The upper Chellean type. It shows there an antiquity if we are right’.

P.62. Copy of a letter from John Evans on the Ash and West Yoke specimens, dated March 4<sup>th</sup> 1890:

‘I am glad to receive your letter but would recommend you not to build too much on the rude flints from Ash – I dined at Miss Milnes where Professor Prestwich is staying, on Friday last and had a hurried glance at the flints you had sent him. One (small sketch inserted showing a pointed hand axe) is undoubtedly an implement 534 – very dark in colour - with chipping at the edge, (but at the others) I again shook my head . My examination of them was extremely hurried and indeed no examination at all, but it seemed to me hard to

say they had not been worked by man, and impossible to affirm that they had – In the manufacture of pebbles by running water it is the sharp edges that are first attacked and natural chipping is undistinguishable from artificial – If you got the finished specimens in the same beds there is more probability of the chipped flints being the work of man – but then they are the less likely to be the first essays in his handiwork – you had better keep on'.

The last five words are underlined by BH in red ink three times over which he has scribbled a few, illegible, words.

There follows a letter from Bell, dated March 7<sup>th</sup> 1890, on John Evans's letter:

'Glad to hear from you. I doubt if you bring Dr E. entirely round. However, he acknowledged one. I should like to see the last two you have got: if you could send me them I will return at once. I lectured to the little boys on Wednesday. I think they were all interested and enjoyed it. I was chiefly concerned in describing the old gravel beds of the Thames within a mile of their school. I got no implement there but an elephant tooth (milk tooth) and 4 horse teeth. Have you seen these? If not I will send. The gravel is distinctly river as opposed to ice, there are river shells at various layers in it. Traces of ice -action however at the top. Yet it gave me this impression that the broad river basin had been continuously full ie: the old valley.(Continued on p 63)'.

P.63. The previous entry does not appear to be continued, as the concluding line of the letter above, suggests.

Below 'Franks on Ash specimens' in red ink, is a copy of a letter from Lewis, dated February 12<sup>th</sup> 1890, containing the views of Woolaston Franks [of the British Museum] on the Ash specimens:

'I thought I would see Mr. Franks early on Monday morning. My friend who is a cabinet maker and dealer in antiquities was wanting me to take his knuckle duster, to fortify himself (to the British Museum anth...) being nervous, he imbibed - so I gave him the slip and went alone.

Mr. Franks in big armchair – "well Mr Lewis what have you got to show me?" Sir, I come to shew you the latest additions to Mr. Harrison's wonderful collection, preglacial flints.

"No not pre but post glacial we don't go so far as the French who claim to have found in the Tertiaries" said he. Well, I said, look at this specimen, scratched all over (Ash 520). Taking up a lens examining carefully he replied "the striae don't go down the flakings, look here is a chip the striae has not gone down that, the chipping might have been done afterwards, besides, snow glaciation not so powerful in the south". Said I, please look at this bulbless flake with side working. He examined carefully "I can see no chippings at all". All along the side there Sir and slightly around the point. He carefully laid down the specimen and said "Dear me is there now, well I am a bad judge of chipping, thank you very much for showing them to me, good morning".



I wished I had one of the best to show him, there that would be no good, it's Dr. Evans that must be convinced. I have taken looked at the bulbless flakes brought home, they grow upon you as you look at a number of them. I have not the shadow of a doubt myself'..

P.36. Pagination reverts to 36.

BH cites Phillpot's *History* in which mention are made of the Shode river, and [??] Symondson's map. 'The stream at Ightham marked as Shode and the other the Sheet'.

Also quoted from Harris' *History of Kent*: 'Hadlow lies upon a rivulet which runs into the Medway, and this brook has two springs which run into it which in Symondson's old map of Kent are called the Shode and the Sheet, they rise above Ightham'.

There follows a sketch of the river valley with a short explanation below.

Copy of a letter from Bell dated May 13<sup>th</sup> 1891:

'It is a great thing to have persuaded the Professor. I hope that Dr. Evans will come round, and shall be anxious to hear. You will find a supporter in H. Balfour, the keeper of the Pitt Rivers museum here. He wants to have examples for his museum, and is coming up to the Anthropological in the day. I want you to make his acquaintance. He has specimens which would interest you much. It is less worked than any old old. Yet it was found used as his only tool by a modern bushman. This is very strange corroborative proof. He has luckily received some Tasmanian implements which are very interesting to compare with pale tools. Saw H. Balfour yesterday. He is very anxious to pay a visit to Ightham and BH'.

P.37. A copy of an extract from A Goudry on the flints of the Abbe Bourgeois. Gaudry recounts being taken to Thenay by the Abbe. He describes the geology:

- Shell-bearing talus (marl) 3 metres
- Sands of Orleans 2 metres
- Compact calcaire (limestone) de Beauce 1 metre
- Greenish mud with black pebbles 3 metres
- Principal layer of chipped flints

The last 4 are grouped together under stage of the Calcaire de Beauce:

'It is contestable that the mud with black pebbles where the flints considered artificial occur rests regularly beneath the Calcaire de Beauce. The whole question is to be as whether the flints have been chipped - before the announcement of so important a fact as the existence of a pebble chipper of middle Miocene age, I should like to have proof to which all geologists could assent without hesitation.

The age of the Miocene possess great antiquity, after the fauna of the C. de Beauce and of the talus, was the fauna of the upper, or of Eppelsheim, of

Pickering, of Leberon Which is different from them after the fauna of upper Miocene was that of the lower Pliocene of Montpellier. Was that of the Pliocene of Confit? After this fauna was that of the forest bed of Cromer: The epoch of the +b was followed by the glacial epoch of the Boulder clay which must have been of long duration, to judge by the deposits of Norfolk; next was the epoch of the diluvium (drift), then came the reindeer age, and at last the recent period. No geologist can doubt that so many changes call for an immense period of time. There is not a single mammal of the middle Miocene age identical with a now existing species. Regarding the question...

P.38. Continued from previous page:

... 'from a purely palaeontological point of view; it is difficult to believe that the flint-chippers of Thenay have remained unaltered amid the universal change. Therefore, should it be actually proved that the flints from the Calcaire de B collected by the Abbe B have been artificially chipped, the most natural idea which would suggest itself to me would be that they were cut by the *dryopithecus*. M. Bell copied for me 1889'.

An extract about 'Rude crest flints' by Joseph Prestwich dated 21<sup>st</sup> May 1891:

'You say in former letter "now I know you to appreciate these rudiments of antiquity". I think my two papers have long shown this. I quite also appreciated them when the curve form specimens was ?found, but would not assume their antiquity upon a supposed case – an impression -. It was also very necessary to be cautious in first forming an opinion. Form and shape alone are not sufficient by themselves'.

*Denudation of the Weald* Lyell's supplement to the 5<sup>th</sup> edition. Chapter 22, 272 - 286.  
<sup>7</sup>. In this extract [contained on 4 A5 size inserts], that would have been of enormous interest to BH since he was surrounded by the Wealden landscape, Lyell says that the formation of the Weald took place over many millions of years and in successive stages, 'widely remote from each other' some antecedent to the Lower Eocene strata of Britain, whilst other formations occurred as recently as the Pliocene epoch.

Sir Joseph Prestwich is quoted as announcing to the Geological Society of London on January 21<sup>st</sup> 1857, the discovery of marine sands 'from the crag period' on top of the North Downs between Folkestone and Dorking. These sands he noted are full of ironstone sandstone, quartzite and are generally ferruginous in nature yielding flint pebbles and some 'green earth'. This formation mimics exactly that in Belgium, for long associated with the Suffolk Crag. In these sands there are found *Terebratula grandis* and the casts of *Astarte*, *Pyrula*, *Emarginula*, which fossils Lyell says occur with the mineral character of the beds in which they lie and prove their contemporaneity. At Lenham, more consolidated examples of sand, especially those in vertical sand pipes, were observed that were replete with the casts of marine shells and other fossils.

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<sup>7</sup> From Lyell's 1859 *Principles of Geology*

Lyell recounts his visits, in company with Sir Joseph Prestwich, to these distinct geological areas noting iron-rich sands up to 20 feet thick resting on chalk for example, near the edge of the escarpment about a mile north east of Keston with a similar formation present at Paddlesworth and other places along the North Downs where depths of 40 feet were noted. Once again, Lyell draws comparison with similar formations in Belgium. He notes that some of the species encountered, such as *Terabratula* and *Jubinolia* are identical [on both sides of the channel].

From this Lyell states that it may be inferred that the first Wealden elevation took place, as shown in Chapter 19, in the early Eocene and maybe even as far back as the Cretaceous, followed by some denudation and a marine submergence during the older Pliocene. With the Lower Eocene deposits of the Woolwich Thanet, and London clays and sands there occurred 'isolated outlets [of land] scattered over the chalk'. With this the latest denudation and the present chalk escarpments, were brought about in or close to a sea rich in species of mollusc, many of which remain extant.

Lyell refers to Prestwich's contention that the 'great upheaval' in the Wealden area, thus proved subsequent in date to the Lower Crag... and helps to explain the difference observed in the fauna and climate of the several successive Crag periods. He suggests that southern shell forms were abundant in the marine environment at the time when the Coralline crag was formed, being open to the south till the sea-bed was uplifted some 500-600 feet thus closing off communication with water from warmer latitudes and acquiring a more local character of its own.

Lyell notes the difficulties of demonstrating the presence of such an ancient sea in any particular area using organic remains as markers. He suggests that the presence of sea beaches and the study shells from harbours under construction are likely to show the evidence of Wealden formations. The chalk downs and the Tertiary area between the Weald and the Thames is another potential rich source of evidence. He does state however, that the retreat of the marine inundation may have been a comparatively recent event and that the land may have sunk and emerged once more without the preservation of evidence of marine denudation'.

Back to the original pages of the notebook, a copy of a lecture to the British Association in Bath 1888, by General Pitt Rivers on the Museum (One assumes this is about the Pitt Rivers Museum in Oxford). He says:

'My object is to ventilate the general idea of a large anthropological rotunda, which I have always thought would be the final outline of the activity which has shown itself in this branch of science during the last few years, and which I have reason to believe is destined to come into being before long. In such an institution the position of each phase of art development shows itself at once by the distance from the centre of the space, and the collateral branches would be arranged to merge into each other according to their geographical position. The Palaeolithic period being the earliest, would occupy the central ring, and having fewer varieties of form would require the smallest space. Next to the Neolithic and bronze age would be analyzed in two concentric rings and would contain beside the relics of these periods, models of prehistoric man - ornaments, bone, caves and other places interesting on account of prehistoric finds that have been made in them - After that in expanding...

P.39. Continues from the previous, non-insert, page:

... order would come Egyptian, Greek, Assyrian and Roman antiquities, to be followed by objects of the Anglo – Saxon, Frankish and Merovingian periods. These again in developmental outward expansion would be surrounded by Mediaeval antiquities and the outer rings all might be devoted to showing the evolution of such modern arts as can be placed in continuity with those of antiquity’.

Following this is an extract of the papers by Flaxman Spurrell read before the Archaeological Institute July 2<sup>nd</sup> 1891 and reprinted in the *Archaeological Journal* Vol XIX 111 p. 315: ‘I sent you a little pamphlet yesterday, as I told you, I meant to try and stir up your finds, and keep if possible a spreading interest – I think a little adverse criticism is better than no remarks at all, especially with a view to their future distribution and your benefit. This letter is dated March 8<sup>th</sup> 1892.

P.40. Two moral tales from *The Daily News* leader, one about not barking till you can bite, the other an extract from a speech by Randolph Churchill made on July 31<sup>st</sup> 1889 in which Sam Weller and the approach of a ‘mad bull up the lane’.

Copy of a letter from Professor Prestwich to Mr. Bell, dated May 27<sup>th</sup> ?1890:

‘The only difference between the Ash and the Bower Lane specimens is that the latter contains a larger proportion of well-finished specimens. There are however plenty of the rude types there and there is no distinction in geological position and no evidence anywhere of two stages of drift. I have however equally with you felt the difficulty of referring such differently fashioned implements to the same race of men and in the paper I have ready for the Anth[ropological] Inst[itute]. I go into that question at greater length – so reserve a large answer – after all however what I have to say is very conjectural and I do not attach much weight to it. So far at present known form and shape alone are not sufficient.

To establish the age of any drift (and their implements) geological evidence is paramount. The other may be corroborative. Though I believe the valleys to have been started by glacial action, I know of no sections shewing the ice to have extended over the plateau. I am glad however to have all these points raised as such points often escape the notice of the writer and it is well that he should know the difficulties that strike others.

I must correct if I can the point you notice about brick earth specimens. When I speak of two stages I mean 2 stages other than those I have indicated as possible, namely the red caly with flints and southern drift. Mr H has 3 beautifully finished implements from Ash and Kingsdown’.

There follows a short clipping, Sam Weller and his advice about money.

In red ink and dated August 28<sup>th</sup> ?1890, a small comment about Professor Prestwich and the ‘Old olds’ about which he is said to be keen whilst not allowing that they are

older than the Ash 'pal'ths' [palaeoliths] and further suggesting that staining alone is not evidence of geological position.

P.41. A copy of an extract from Laing on Tertiary flint implements, p.113. He deals with the Thenay flints of Abbe Bourgeois. Much of what has already been cited previously in this volume re: these flints is repeated here. However, the concluding three paragraphs are worth copying in full:

'Tertiary gravels at Puy Corney p 117. They comprise small and rude specimens of the types found in the lowest Quaternary gravels, such as Celts, knives and scrapers, and present all the characters by which artificial are distinguished from natural flints in these formations, viz bulbs of percussion, chippings in a determinate direction on the sides and points intended for use; while no chippings appear on the other parts of the flint, as must have been the case if they had been the result of casual blows on natural flints.

M. Quatrefarges, by whom the subject is fully discussed, and the objects figured in his recent work, lays great stress on the fact that while the beds contain 5 different kinds of flints those which present traces of design are confined exclusively to one description of flint which is most easily manufactured and best adapted for human use. He observes with much force that a torrent capable of tearing flints from their bed and rolling them on with collisions violent enough to imitate artificial chipping could not have exercised a selection and confined its operations to one only out of five different descriptions of flints. He shows that worked edges exhibit, when closely examined...

P.42. Entry from previous page continues:

... both intentional chipping and fine parallel striae as from repeated use in culling and scraping, while nothing is to be seen of the sort on the sides left in their natural state, though they are often as sharp, or even sharper.'

The final paragraph is from p.98 of the publication:

'The first dawn of intelligence when primitive man emerged from the animal state, would shew itself by his picking up the natural stones to use as tools or weapons of offence. He would naturally select stones of the type of the hache, with a sharp point for crushing in the skull and a blunt butt-end to give weight to the blow, and a firm grasp to the hand. This would hardly require more intelligence (than) that of the gorilla, who living in forests, uses branches of trees as clubs: or of apes who throw stones at enemies. The next stage would be to improve natural stones, by chipping so as to give shape and more solid point and edge, and a similar process would apply to flint chips used as knives and scrapers.'

There follows copy of Thomas Holman's account, of the rock shelters at Oldbury, dated August 26<sup>th</sup> 1890:

'Question put to me. "Have you found your treasure Sir? What treasure? What are you seeking for at Oldbury? Not much as yet- but you may possibly have

known the cave on the east side. How old are you? I am 77 Sir. I remember the cave well Sir. It was like a large foxes earth and went in a long distance. As far back as from here to that wall (about 2 ½ rods). Did you ever go in far? Yes, when we were employed digging for stones and there were over a hundred men employed. I and some mates crawled in, the man outside called out “have you found the treasure box?” We went in so far we were afraid to go further.

P.43. Continuation of Thomas Holman’s account from the previous page:

... How deep was it? About 4-5 feet – the ceiling was the rock, all in one line. What rock? Firestone. Firestone eh? I suppose you mean the Oldbury greenstone? Yes. But I always thought that it lay in detached blocks? Yes, so it does Sir, below the hill but there was a big continuous rock at the top and this cave beneath it. Did it overhang? Yes, Sir, so that two or three of us could sit under when boys. Place these boxes as it appeared’ [there is a sketch of the boxes placed to show the overhang which measured about 4 ½ feet]. ‘Where was the exact spot? On the top of the hill above Bassett’s house’ [BH writes in red ink that this was above the slope on which his first implements were found 1869-70]. ‘Did it face east or south? South-east Sir. Supposing you were in the cave and looked out straight to what would it point? It would be in the direction of Cop Hall. How long did you work at Oldbury? I can’t exactly tell you – 5 or 6 winters I suppose. What size were the blocks on slopes? Oh! Some very big – as much as a yard of stone when broken up, so big it took 4 or 5 of us to roll over. Was it all greenstone? Yes as a rule – since it was rather lighter than the other but principally all of a firestone character. They would strike a light against one another Sir’.

P.44. Copy of a letter from the Royal Society of Architects dated July 24<sup>th</sup> 1890 asking BH to conduct a party around parts of Kent and it is their desire to see BH’s collection of flint implements.

There follows a letter from Bevington to Spurrell dated 20<sup>th</sup> September 1890. Their names are in the code BH sometimes uses which transposes letters to conceal the identity of the persons concerned:

‘It is very kind of you thinking to write to an old geologist who has been much interested in the antiquity of Man and subjects that so belonging. Harrison has been a hard worker and has done very much of the investigation which of late has been more fruitful – much more than I formerly suspected. I mean with respect to implements that bear ancient marks and have been found in situations that connect them with the ice period. I think with you that it is desirable that the whole set should be submitted to the inspection of all those like yourself that have long experience on the subject. Until you mentioned the matter I had not suspected that the pygmies or cave series are separable as another type<sup>8</sup>. I am

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<sup>8</sup> This remark is important since the idea of a separate type, here called ‘pygmies’ and actually meaning what would now be referred to as Middle Palaeolithic stone tools, must have come from BH though he did not put it into words stating this as unequivocally as Bevington does here. It is an example of BH’s ideas and thoughts being usurped by others, thus robbing him of legitimate credit. Of note here also is the

exceedingly obliged by your writing to me. For an old fellow of 86 years I am pretty well and intend to spend the winter at Marle Wood... JBB'

P.45. A piece on Sir Thomas Cawne's window and tomb in Ightham church, deemed to date to the same period. The knight on the north side of the church is said to be a representation of Sir Thomas Cawne. It is noted that he came originally from Stafford and arrived in Kent after the purchase of land from Sir John Ashburnham in 1363. He dies without any known issue and his arms that can also be seen in the rolls of Staffordshire are the same as those in the Chancel window.

BH goes on then to talk about the interior of the church and adds a little about the will of Sir Thomas Cawne, which continues on to P.47 where it is noted in the concluding paragraph that removals and repairs may have modified the original composition of the window. This was copied on September 16<sup>th</sup> 1871.

P.46. The previous entry continues, concluding briefly on p 47

P.47.Re: a letter from Flaxman Spurrell dated September 18<sup>th</sup> 1890 on 'Old olds'. There is no content copied from this letter but another dates September 12<sup>th</sup> 18<sup>th</sup> 1890:

'As you are about to spend a day with Professor Prestwich perhaps my call may be inconvenient and take up your time needlessly as I can put off – Although I should have liked a little more examination of the Ash specimens.

I think they want examining and tabulating.. Knowing your affection for them and belief in there being undoubted implements I hardly like to be a wasp and enter your hive to coolly and coldly and critically examine them. What I mean is that I am satisfied yet which of the Old old specimens you have are true implements and which are accidentally chipped in a near relation to them – in fact a critical reason why they may be considered not accidental has not yet been given and I never believe without being able to find a reason first!!! On paper.

Now remember I am inclined to believe and wish to be able to give reasons – do not tell anyone of my opinion that I am in doubt but get your friends to put down their reasons for or against – if they have written copy out'.

The second Spurrell letter of September 18<sup>th</sup> 1890, after inspection, follows:

'First let me thank you for the admirable and laborious overhauling of your implement collection which you granted me on Tuesday last. I am much impressed with it, and now it can be fairly seen as a whole. I think that the time has come to examine and tabulate the whole into a kind of report with general descriptions of types and other divisions committing the geology for another mode of treatment and the more so as the geological enquiry is at present not ready for generalization. If you will write a paper on the lines I propose I will read it for you at the Anthropological Society, or if you will sort out some good

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term 'pygmies' as it was later used in relation to both Mesolithic stone tools and very small eoliths.

examples I will discuss and exhibit. I think it important at this juncture to get a sort of opinion as to true relations of the rudest of your stones to the intentional manufacture or use by man...

On to P.49 for the conclusion of this letter:

...The discussion whether the verdict (be) for or against cannot hurt the facts: they are hard enough to bear a few jaws broken against them, and will in any case fire an impulse to future work and what is of new value gives (perhaps) a new turn in the investigation which may have been slighted or overhauled hitherto. It would I think be well to determine on the arrangements I propose as soon as possible, because whoever does it has to work and that takes time for things crop up as you write – you know! And they have to be worked out.

Let me know your sentiments as soon as a convenient, my mind is equal and at present wholly unbiased. FJC Spurrell'

P.48 An account of Roman remains in Ightham churchyard, copied from the work of G Payne August 1889. It seems that much of the information is from Mr Roach Smith's notebook of 1840. Black and Samian pottery was found in the churchyard and in a field known as Mains there was found pottery and coins. Several hundred brass coins came from Mr Cobb's farm. A recently deceased Mr Wright often found coins that he showed to BH that they 'might be traced and secured'. A Roman urn from Mr Bigg's field, top and side of Hillfield. A marginal note of March 27<sup>th</sup> 1895 suggests that Mains or Meens field might be that adjoining Fir Cottage on Tebbs Farm and that there are curious holes and raised portions, which BH vows to see. There follows a list of other sites in which Roman pottery had been found, which includes

- Church field
- Landway
- Buckwell
- Wall's field, Boro'Green
- Biggs field
- Rose Wood
- Stone Street
- Foxbury
- Broad Haugh
- Wilmot Hill
- Kiln field
- Oldbury

Mention of bronze spear heads though no site specified. In a marginal note, Beech Wood is noted as having yielded 'Celtic' material.

There follows an account of Prestwich's paper on 'Old olds' by J. Allen Brown. He agrees with Prestwich but suggests that some may derive from beds older than the ones in which they are found. Fulsome in his praise of Prestwich.

P.49. A copy of Payne's work on Wilmot Hill, dated 7.6.88. Discusses the cemetery finds, in which urn burials were the norm. Does not wish to examine the Pilgrim's



Way but intends looking at the Military way to Keston. Talks about the last station on Watling Street between London and Dartford. Wishes to look for routes from there to Southfleet about which he is pessimistic of locating.

P.50. A page of information about Wrotham ware with illustrations. Records Mr Frank's assertion that he did not assign the pottery a date of circa 1300. A list of dates associated with 14 numbered pots. The dates range from 1607 to 1709.

A loose leaf about the same pottery with a newspaper clipping attached entitled: 'Sir John Evans's Lambeth Pottery'.

A sketch of a tall mug above which is a newspaper clipping which identifies it as 'A very rare Wrotham ware mug, rich brown glaze, in yellow slip inscribed with legend and date "Feare God 1603"'. The auctioneer stated that there were only seven or eight of these mugs in existence. BH notes that it was sold March 29<sup>th</sup> 1883.

In red ink BH has written a few lines of a biblical account involving a posture of humility adopted by Jacob. Also in red is a description of the mug illustrated.

P.64. Once again pagination leaps to a high number from a much lower one.

Copy of a letter from Mr Martin of Meopham dated October 23<sup>rd</sup> 1889. It asks if BH would like to see a fossil mastodon tooth found in Shoreham. Below this is a copy of another letter from Mr. Martin dated 25<sup>th</sup> September 1889, this time explaining that he is unable to give the exact find spot of the mastodon tooth, though he found them in a garden border in Luddesdown [?brought in with fertilizer]. BH is invited to view this collection of fossilised bone, which the writer promises to send by parcel post. He copies his reply, almost illegible, in red ink, which is partly written over the other letters, vertically in the margin. He expresses his pleasure that it is a mastodon tooth and that the sender will identify the original find spot.

There follows a short piece about Old Sore extracted from from Phillpot's *History*.

Following The Old Sore entry is a little snippet about the Malvern Hills. This is copied probably from a journal or periodical, the source of which is not given.

P.65. Continuation and conclusion of the piece on the formation of the Malvern Hills

An extract from Henry Seebohm's *Siberia in Asia* in which the break-up of ice in the river 'Yen-es-say' is dealt with..

Copy of a letter from Bell dated 14<sup>th</sup> March 1890:

'Striated stones arrived this morning. I took at once to Dr Tylor who is impressed. I have unfortunately been unable to see Professor Green, who is now in London but I am sending on the pair to Mr. Bevington with an explanatory letter.

I also saw Mr. Balfour, assistant Curator of Museum. He is also impressed and I have urged him to pay you a visit. He is a relative of the Irish Secretary, but he

is truly an interested student, and will I believe pardon even home rule in a fellow student...’.

P.66. An entry ?part of a letter to BH from Bell:

‘...I don’t know if you keep an account of the foreigners introduced by Neolithic people, I have very few\_

- 1) One celt of decayed greenstone ie a basaltic lava
- 2) One rubber of undecayed greenstone ie silicic lava
- 3) One perforated hammer of decayed greenstone (in Mr Loveson Groves museum)
- 4) Abundant green coated flints

Yet the more I think the more it seems to me that Neolithic times present a long advanced civilization, when considerable commerce with more or less distant places prevailed.

In this direction I would keep an open eye and also in this: can you even find one Neolithic fragment in a position which gives geologic or other evidence of age? I find none except they are ?... brooks and springs, evidence that the same brooks flowed and the same springs welled in those days. Yet more evidence would appear, if your eyes were instantly open.’

A short note from Joseph Prestwich to BH dated 24<sup>th</sup> January 1890 on the Ash specimens shown to him, which Bell, being present also saw. He remarks that he will retain them to show Dr. Evans. Notes that he has heard from Crawshay who has been digging in Bower Lane.

Part of another note (?) from Prestwich to BH about specimens found at West Yoke on February 11<sup>th</sup> 1890. Assures BH that he has found another part of the old drift but asks for only a few of the specimens rather than a box full. Asks BH if he has examined the post-glacial gravel running down the valley from Boney’s Maple to beyond Longfield.

P.67. Copy of a letter from Bell to BH dated 18<sup>th</sup> September 1889 on the stained Ash bed specimens:

‘Thanks for your note and also pipe. I am glad that you saw the veteran Professor, and also that his verdict on these un-bulbed scrapers coincides with our own. I have looked again and again at the edges of those which I selected and with an increasing feeling that there is a human purpose dimly visible in the working. There seems to be something made in the uniform though rude chipping than mere accidental attrition would have produced.

I have come to this conclusion with diffidence; first because I had hitherto regarded the bulb or trace of artificial blow as a sine qua non; second and more important because I feel and have all along felt that the real enemy to such a study as ours is the too enthusiastic friend who sees what is not there; but having made any conclusion I hold it with all firmness. Until I see flints

carefully and uniformly chipped all round the edges and only in one direction of blow by natural action I shall believe that these are artificial.

With all humility I am doubtful about the rolled stone being a granite: if it is, it is of great interest. I am glad to hear that your party at home got on well in your absence. AMB'

Letter to BH concerning a walk around Ash, Otford and Kingsdown on the 16<sup>th</sup> September 1889, thanking him for a delightful guided walk.

P.68. Copy of an extract from the lecture given by Dr Hicks on 'The Antiquity of Man' in St Albans March 25<sup>th</sup> 1889. It advances evidence for the presence of human beings in glacial times, a point with which Professor Prestwich now concurs though he previously disputed.

P.69. A copy of some research undertaken by Morrison on the St Clair, or St Clere family and dated August 4<sup>th</sup> 1891 which is difficult to read in parts since it is written vertically, horizontally, in the margins and squeezed in every small space available on the page. Hasted's work is used.

A newspaper clipping re: the wedding of Thomas Colyer Fergusson of Ightham Mote.

P.70. A comment by Bell on the striated Ash specimens, dated June 18<sup>th</sup> 1889:

'At the geologists meeting I specially called Mr Topley's attention to the striations on the Ash specimens: he was much struck by them and I saw him pointing them out to others. They stand, as far as I know alone in this respect. I find nothing like them – and must represent some long wasting along the surface. I do not see that this has necessarily been glacial. Yet to produce striae on flint great superincumbent weight and also strong motive power are necessary factors, for which one is accustomed to look to ice agency.'

A letter from Worthington Smith dated June 1<sup>st</sup> 1889:

'Professor Prestwich has kindly sent me a copy of his paper on the Ightham imps. I am very glad to get such a lot of data, as you may suppose. I have lately found 3 impts near here in the hills in red clay and chalk, one in gravel (so called) at 759 above OD and 345 above the nearest brook ¼ mile off (nothing to do with brook – and no other water near for miles). 3 impts are cinnamon colour, very slightly abraded, tongue shaped, rather small.'

Copy of a letter from Spurrell to BH dated July 13<sup>th</sup> [?] 1889. 'I found the other day a good old impt on 300 contour, Beacon Wood, Darenth, so that after all the gravels of the Darenth and Swanscombe Woods may be fossiliferous as far as implements are concerned.'

On August 30<sup>th</sup> 1889 BH visited Telegraph Hill Darenth from where he took the trap to Gravesend and from there along the London road to Northfleet and Greenhithe where he notes the 80 ft deep pipes. Records finding flint flakes in Milton St. Pit and 'secured' an implement found the day before. Notes that at Telegraph Hill [this may

be another Telegraph Hill] he and JP have identified gravels which extend as far east as Reading but not beyond Rochester. Saw a beautiful garden not seen for twenty five years, fifty in the case of Professor Prestwich, where he used to hunt for fossils. Mrs Prestwich remarks that she used to sail from Sealand [Denmark] to attend school and the passage was often very rough and she was always pleased to enter the calmer waters of the north Kent coast. BH says that for all three it was a 'red letter day'.

P71. Copy of a letter from the rectory at Hackney dated August 11<sup>th</sup> 1891. No name but gives details of when he obtained his degree. And expresses pleasure that BH's 'discoveries are progressing'.

A brief account of a trip undertaken by the Society of Antiquaries on Thursday August 28<sup>th</sup> 1890, to Knole, Oldbury rocks and Middle Woods with lunch at the George and Dragon. An Implements display was part of the day's experience.

Short piece on a lignite specimen found in the lower Old Red sandstone. BH in poetic mood, describes the lignite as 'Adam' and indulged in poetic flights of fancy.

P.72. Some examples of Seal sayings and more poetry, one about hunger, as well as the thoughts of one Mr Spurgeon whose aphorisms about getting straight to the point, BH clearly savours.

P.73. More Victorian thoughts. An extract from Emerson's *Resources* [Ralph Waldo] about natural history

An entry on the topic of footpaths taken from the work of Richard Jeffries, author of *The Gamekeeper*.

Copy of a letter from Spurrell to BH dated September 23<sup>rd</sup> 1889:

'I send you the flint implements you so kindly awarded me in July. Of these implements I see no cause to change my opinions as yet. They they are the residue of gravels once laid by rivers. The smaller particles having been dissolved or washed or blown away. The rivers were those which firmly drained the newly raised dome of the weald, some of which rivers remain to this day. At all events I by no means believe them in any essential point glacial – though they may have suffered glaciation'.

P.74. A copy of part of a piece by Grant Allen entitled 'Attainable Ideals', which continues on to P.75. In it he mentions both Robert Dick, the Thurso baker [beloved of BH who must have had a fellow feeling for this self-taught natural historian] and Thomas Edward, a shoemaker who studied marine animals in his spare time. Grant Allen is fulsome of his praise for these humble people whose contribution to science was so great.

P.75. A poem about flouting society's rules and daring to do things differently [which must have touched BH's sensitivities and experience as an amateur archaeologist/geologist whose theories about eoliths were so contentious].

Small paper clipping about Charles Lamb by Robert Browning. More poetry, this time by Pope about health and walking. Dated February 18<sup>th</sup> 1889.

Four verses of 'In Memoriam' by Tennyson.

A daily diary entry dated February 18<sup>th</sup> 1867. 'Like rain off a ducks back, petty trials and petty woes roll off the waterproof of cheerfulness. If I had to begin the world anew and to choose my working tools I would ask but for good health and cheerfulness – contentment and moderate prosperity follow on certainly in their wake'<sup>9</sup>

P.76. This is a personal and family memo, which records Edward Harrison's Preceptor's examination in June 1889 which he passed in the 1<sup>st</sup> division and for which he received a special certificate. The results of the exam are then given. The date is July 3<sup>rd</sup> 1889. There follow more results, this time for Agnes from Maidstone High School for Girls. Agnes too got good results and was entered for the preliminary examination for Girton College Cambridge. Another short entry informs the reader that Agnes was 7<sup>th</sup> in the whole of England. A short letter from Agnes informs Mrs Harrison of her marks.

Copy of a letter from EH about an examination success.

A copy of a piece on religious belief by Robert Browning.

A small clipping, dated 28<sup>th</sup> February 1891: Edward Harrison matriculated from the Oxford House School obtaining a place in the first division.

P .77. A list of friends and others interested in human antiquity. Small clipping re: Sir John Evans at a meeting of the Royal Society of Antiquaries.

Transcribed for and on behalf of Maidstone Museum and Bently Art Gallery.  
Angela Muthana, March 1<sup>st</sup> 2015.

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<sup>9</sup> Though there is nothing very informative archaeologically about this entry, it is the earliest diary entry in the archive held in Maidstone Museum, all the earlier diaries having been lost.