London
10 Old Burlington Street
21 April 1873

My dear Sir

Accept my warmest thanks for your very courteous present of copies of your most interesting papers in the Amer. Jnst. of Sc. & Arts on several new reptiles. We are looking in England with the greatest interest for a detailed description, with illustrations, of your most remarkable discovery of the toothed birds. Your immense country affords an illimitable field with which we in the old world have nothing to compare and doubtless you will find many a link to complete the chain of progressive evolution which when most strained beyond its legitimate application harmonizes to

so many facts otherwise scattered & chaotic.

I was glad to see your figures of the shoulder & pip-girdles of Mosasauroids because I had latterly felt more uncertain of the correctness of Cuvier's views and disposed to think that Mosasaurus Camperi might have been a Dinosaur & had terrestr. limbs. I was partly led to this by the fact that in the Maestricht chalk Mosasauroid remains are associated with limb-bones indubitably dinosaurian. e.g. femur with third, inner, trochanter & gone like Iguanodon Mantelli. Humerus too of similar Dinos. aspect.

Much remains to be done with our Wealden Dinosauria — the time has come when our material might be profitably ~~reviewed~~ revised. I wish I could see this done — I, myself, want leisure for the task, for I can only steal moments from a busy professional life. Unfortunately the richest collections are in private hands and scarcely accessible & yet so badly cared for that most unique & valuable fossils are disintegrating — falling to bits — un-labelled — & with their possessors' death, scarcely identifiable. I send you copies of a few papers on some Kim. Clay & Wealden Rept. which I beg you to accept. I remain

Yrs faithfully

J. W. Hulke

Prof. O. C. Marsh

10 Old Burlington St.
London
20th Feb 1877

Dear Sir

I have very great
pleasure in forwarding the
Bigsby Medal awarded you
in recognition of your la-
bours in Vertebrate Palæontology
by the Geological Society of
London at the Anniversary
Meeting on the 16th inst.
In your absence, a matter
of regret to all, I had

no doubt that I was acting as you would have wished in returning your best thanks for his honour. In the report of the meeting which will appear in the Proc. Zool. Soc. you will have the gratification of reading the Presidents' summary of some of the marvellous discoveries in Mammalian avian & reptilian vertebrates & his appreciation of the great value of your work.

Permit me personally to congratulate you — and also to thank you warmly for the extremely instructive & highly interesting papers you have kindly sent me.

Believe me
Yours faithfully
J. W. Hulke
Sec. Zool. Soc.

the Medal is sent through
Messrs Wheatley Ho. forwarding
Agents, and must be applied
for.

[with letter of 20 Feb 1877]

10 Old Burlington Street
London
12 Nov - 1878

Dear Prof. Marsh

I have just received the copy of Part I. Principal characters of amer. Jurassic Dinos. Accept my very warm thanks for it - The wonderfully perfect condition of your fossil remains & their abundance will enable you to settle readily doubtful questions which have long vexed us - I am just now occupied with my winter course of lectures & but I have little leisure for extra professional matters but I should steal an hour to carefully study your paper & I make

no doubt I shall learn much from it - when I glanced my eye over the illustrations one thing struck me in Lacosaurus altus — the wonder form & minor development of the preacetabular process of the pubis as compared with the same point in Hypsilophodon of Our Wealden in which this process is extended as much or more proportionally as in Iguanodon Mantelli - taking the fine slab from Benstead's maidstone quarry formerly in Mantelli Collection as the type of this -

I shall look forward with great interest further following numbers of these series -

I post you a note on an ~~[illegible]~~ osarticulare - which I think is Iguanodon - when shall be completely know the whole head!

Yours faithfully

J. W. Hulke

10 Old Burlington Street
London
9 April 1880

My dear Marsh

I am glad to learn from your letter of the 14th ult. that you find some pleasure in my sauvian work. You know how scanty & how scattered are the fossils on which we labour, & the little leisure I have for it. Yet I hope I may be bringing some order out of much confusion & be also adding some new forms of old-world-life - some fresh links recovered.

Many thanks for your excellent memoirs which greatly interest me & are most useful.

I will not fail to send you mine. I hope you have safely

received those which I lately sent you about Brithopsis - The last has good figures of the cervical & trunk vertebrae so that now you will find no difficulty in thoroughly comparing them with your new forms.

Many thanks for correcting the error into which I had fallen respecting Allosaurus.

In Brithopsis the supplementary articulation is a flat bolt-plate & notch - & is not wedgeshaped - You are quite right in considering it different from the typical zygosphene & zygantrum of Serpent - Your terms are thoroughly appropriate as descriptive of the shape in your saurian & deserve adoption -

I have an idea that I know a Wealden Saurian of the family of your Stegosaurus - & when I can get away for a few days for harness must take him in hand - Believe me

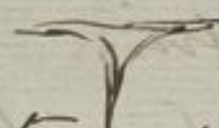
Yours faithfully

J.W. Huthe

10 Old Burlington Street
London
7 May 1880

Dear Prof Marsh

Accept my best thanks for your paper on the "Sternum" in Dinosaurian Reptiles. It is one of the facts which long remained nearly unknown — till your communication I only notices of this bone with which I was acquainted were one by Huxley in his Wealden Dinos. read some ten years ago at Soc. where he refers to a large flat bone shown him by Plieninger of Württemberg — unless my memory is false — and a communication

by myself to Geol. Soc. on the Anat. of Hypsilophodon Foxii which has a sternum not very unlike that of existing lizards shield shaped - I have seen this nearly in position - one coracoid only slightly slipped out of place its convex pectoral border still touching the correspondingly curved coracoid-articular border of sternum - In this skeleton the sternum was broken across just behind the coracoids - & so the shape of its posterior half was not shown - nor the number of ribs attached to it. Between the coracoids was a marked episternal notch - but no trace of a  episternal bone - the two sides of the sternum sloped making a marked ~~but~~ yet not salient ventral keel - Some day I hope to give a full anatomy of Hypsilophodon - perhaps this summer if I am spared - but the engagements of a busy

professional life leave
me scanty leisure for
Palaeontology - How greatly
I wish I could see your
collections - but that is
not possible -
Have you seen Reone
Scientif. for Sept. 1879
C. Vogt - there describes
the Archaeopt. which you
must ought to buy - Believe
Yours faithfully
J. W. Dawson

10, Old Burlington Street. W.

London
Sept - 11th 1880

My dear Marsh

Coming up to town
for a few hours I find
your magnificent atlas
of the kind gift of
which you told me in
your letter of the 3rd Aug.
I could not resist the
temptation of opening
the packet - What rich

I say? the execution of
the illustrations is superb,
the material so rich, the
information so full —
It will occupy many a
leisure hour during the
coming winter — Many
very many thanks —
I post you a little
paper on some Iguanodon

remains found at Cumnor
& miserably damaged
by unskilful quarrymen
as too often happens —
I am busy for a few
weeks in Isle of Wight
& have a little paper
in hand on Polacanthus
Foxii — a singular dinosaur
allied to Hylaeosaurus —
& I am also taking in hand
Hypsilophodon Foxii —
of which I hope to

make out the whole
structure - singularly enough
with some 8 or 10 hind
feet - some very complete
I have only too very
mutilated fore feet
on which to work - I
do not know if you have
heard of the - Belgian
Iguanodon found - whole
skeletons - bones in situ -
being articulated - Believe
me Yours very truly
J. W. Huthe

[1]

10 Old Burlington Street
London W.
18 Jany 1882

My dear Marsh

I have much pleasure in giving you a tracing of the Iguanodon's skull. I wish that some competent man might be entrusted with the examination & description of these magnificent remains. Boulenger it is reported read a paper at the Academy on the pelvis — it is said that this was so cut up by Van Beneden that the author withdrew it.

Boulenger himself told me that the praemaxilla is devoid of teeth & certainly none were present in the skull I sketched — but on the bone which fitted to the ~~—~~ edentulous mandibular symphysis I noticed several vertical grooves of the bone

appeared mutilated – there not being then uncovered other skulls by which to settle the point of teeth or no teeth – it occurred to me that these grooves might be the vestiges of alveoli in the inner wall of alveolar process of premaxillae, the outer wall having perished & the teeth having been so removed their support having gone – this was however but a guess – On the other hand in my first paper on Hypsilophodon Foxii in Quat. Jour. Geol. Soc. I ~~[illegible]~~ mention a bone lying before the ~~[illegible]~~ symphysial end

of mandible in a slab in my collection – but I could not then identify it –

I hope soon to receive copies from the Royal Soc. of my paper on Polacanthus Foxii – & as soon as I get them I shall post you one. The paper was read a year since – how things march slowly!!

Your material is so much fuller, than ours that we may look patiently to you for a natural classification of the Dinosauria – I am only what I can to supply accurate anatomical data for a rigid comparison of yours with ~~our~~ forms – Tomorrow I read at the Royal Society on "Attempt at a

complete Anatomy of *Hypsilophodon foxii* — in many points so like your Laosaurus. As regards the European forms given in your correlation I would say that *Ornithopsis* — Seeley — *Eucamerotus* Hulke — *Bothriospondylus magnus* — Owen — *Chondrosteosaurus* Owen & Cetiosaurus Owen in part — are one & the same — *Ornithopsis* has priority & I regard Eucamerotus H. as Synonym. I give you the names in their order of priority.

With respect to your order ~~to~~ 2. or rather to the European members of it — the metatarsals

of Hylaeosaurus are not yet certainly identified. Other types in the Brit. Mus. are most found to associated with undistinguishable Hylaeosaurus remains as to render its reference to this Dinosaur very probable whilst their slenderness is to unlike the shortness & large joints of the Hylaeos. limb-bones as to make Owen's reference of them to Hylaeosaurus very doubtful. The metatarsals of Pelorosaurus Conybeari are certainly short.

3. Ornithopoda

Hypsilophodon has certainly 4 functional toes on the foot - & a rudimentary 5th. Meta-

turned — I have found this letter in 7 feet which I have dissected myself —

Calurnia — reminds me of some bones I saw long since in a private collection since dispersed which were quite tubular — I must enquire for them —

Fox's I. Wight collection has been bought by the

Brit. Mus. — the executors offered it to me but my purse was not long enough — In the course of the summer I imagine all there — mainly Dinosaurian remains — will be available for study by all —

How I wish I could avail myself of your friendly invitation to Yale — I must however forego for some time at least

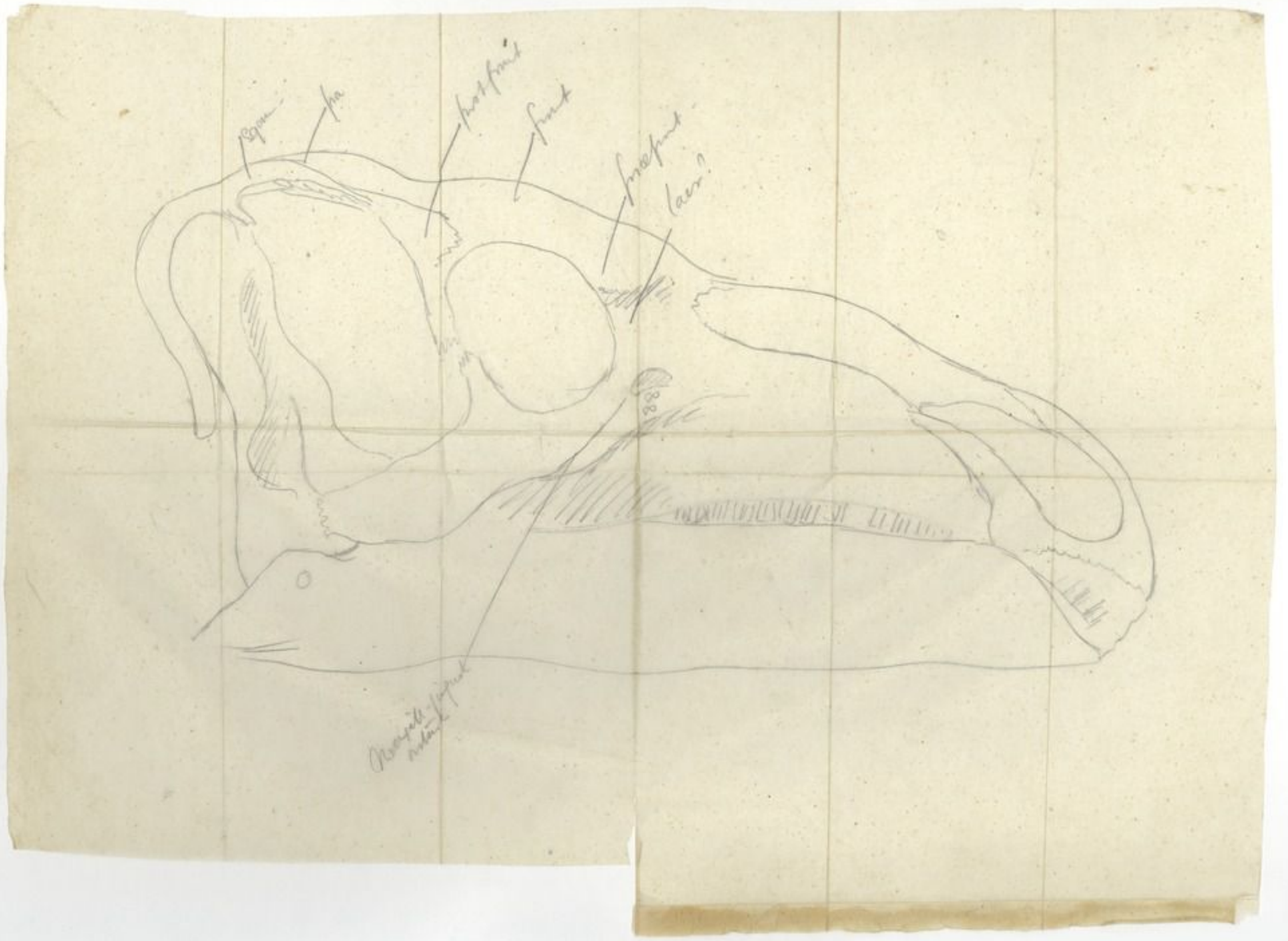
[8]

the intense pleasure this would give me — for I cannot — for long at a time long under professional work —

Write if I can be of service to you here

Yours truly

J. W. Hulke



T4182

10, Old Burlington Street. W.

London 30th. 3. 1863

My dear Marsh

Accept my
very warmest thanks
for the copy of your
magnificent Monograph
on the Dinocerata which
I have just received,
& am most greedily
devouring at every
spare moment — What

a wealth of material
you have obtained
& how present a flood
of light you have
thrown on these
Eocene forms of
life - Nothing here
can for a moment
compare with your
work - How heartily
I long to see your
grand collection
but as time rolls
on I find myself
tied more closely
than ever by my
professional duties
to that - I fear
a trip to Gala

will long remain-

a dream — Does

Alfrecht of Brussels

send you his many

brochures? — He is a

hard student & a

prolific writer but

some of his ideas

are difficult of

digestion & assimilation

Yrs truly

J. W. Hulke

885

10 Old Burlington St.
London
Oct. 26. 1885

My dear Marsh

Mr Baccles has yielded to Woodward entreaty and allows the fossil to be cast. Yesterday it went to the Brit. Mus. He says also that you & Dolls shall have each a copy. I had long ago tried to solve the position of the coracoids by trying to adapt them — but without success. Baccles'

specimens were too much damaged to give the true outline of the articular sternal border of the coracoid — and in all the Iguanodon coracoids I have handled the character of this border gave me the notion that it had been fringed by a wide margin of cartilaginous pre-coracoid —

If Dollo's view is right viz: that what I think clavicle is sternal, then I mistrust his homo-

logy of these bones with the 2 sternal plates of Rhea and I would rather regard them as representing the external lateral processes of the metasternum the 2 plates in Rhea being pleurosternal —

Yours truly

J. W. Hulke

10 Old Burlington St
London
3 Nov. 1883

My dear Marsh

Dollo has sent me a paper criticising with much acumen & with thorough fairness my reading of the Iguanodon sternal apparatus & in it he mentions that you have in hand a paper on the Ornith. sternum – I have thanked Dollo for the copy he has sent me & contented myself with saying that our views having been stated I ~~must~~ leave it to time to settle which is right & that a demonstration I shall only

be most ready to accept
the verdict –

You will in due course
receive safely I hope
a cast of Beccles fossil –
Dollo's with the pair of
bones plaques sternales or
as you know he homologizes
them with the two costal
sternalia of the immature
Rhea fig'd in Parker's Shoul-
der girdle – but he also
homologizes them with Xiphi-
sternals – but the Rhea's

2 plaques are certainly not
homologous with the Xiphi-
sternals of other ratitae etc
for these last are meta-
sternal products & are both
obscurely united in the
young Rhea –

Iguanodon

This copy
of a diagram
Dollo's as
he draws
the ribs inter-
calated between
Cor. & plaques sternales.
Now in Beccles fossil
the part of the lateral
border of the interclavicle
which immediately succeeds
the clavicles is quite smooth

suggestive of an articular surface — & not of having had structurally continuous with it a fringe of modified cartilage which might have borne ribs — I hope in your rich stores you will find something which will clear up all our doubts — Meanwhile on this side of the water we will do our best in my old hunting ground — Ever yours truly

J. W. Hulke

INTERNATIONAL GEOLOGICAL CONGRESS.

4th SESSION—LONDON, 1888.

Sunday 16th Sept 1888

My dear Marsh

I find that owing to the incompleteness of our list of London addresses I have no chance of bringing together on Wednesday the members of Congress I should like to meet you at that I am authorised to issue ceremony & ask you to give me the pleasure of your company at dinner on Friday instead of Wednesday

Yours truly

J. W. Hulke

10 Old Burlington St.
London
June 13. 1890

My dear Marsh

On the receipt of the communication from the Amer. Ctee. about the abandonment of Philadelphia & suggestion of Washington for the place of meeting of Congress. Topley & I issued a circular asking the members of Old Ctee whether they approved of the choice of Washington. All the replies we have received are in affirmative so that I imagine Washington may be regarded as definitively fixed. I had never thought this city, on several grounds,

more appropriate to the occasion than Philadelphia and from what I had observed I was quite prepared for the disruption at Philadelphia - so that it did not astonish me -

I need not add that if I should find myself free to get off from here it would afford Mrs Hulthe & myself the greatest pleasure to visit Yale & see your treasures -

My time has been lately so much occupied by professional work that I have had too little leisure for palaeontology - warmest thanks for your valuable papers which interest me greatly -

You may perhaps remember Dallas the Assist Secty of the Geological Society - poor fellow he has gone to his rest - for some time I had noticed indications of cerebral softening - and a hemorrhage gave the final stroke -

At anytime if I can be of service to you here only tell me your wishes - Believe me

Yours sincerely
J. W. Hulthe

[1]

10 Old Burlington St.
London W
25. Feb. 1892

Dear Marsh

You have such a rich storehouse of Reptilian remains that I am encouraged to ask you if you have amongst your remains of Testudinata any which afford evidence of original distinctness of the Scapula and the foremost ventral bone in shoulder-girdle which Cuvier called acromion others clavicle & Further

[2]

precoracoid. Stannius in his "Zootomia – Fiska and Amphib." mentions (p. 75) a skeleton in Berlin Anat. Mus. which, on the left side, showed a natural connection of the scapula & acromion. We have not in the R. Coll. Surg. Mus. ~~[illegible]~~ anything illustrating this, but possibly such evidence may be found in fossil chels., & more probably perchance in those in which plastron

[3]

& carapace are not rigidly connected, & where the ~~above~~ bones in question would have more reciprocal play, than where the ends are closely connected with plastr. & carap. forming one architectural whole –

Prof. H. G. Seeley read a paper last Thursday at the R. Soc. on the "Shoulder girdle in Sauroptarygia", so full of hazy speculations and imaginings which he treats as realities that it is not

[4]

Essay to follow him & to distinctly apprehend his views on many points he dealt with in it.

"Inter alia he finds evidence in Ichthyosaurus of the existence of a cartilaginous precoracoid bar bounding the anterio-ventral end of Scapula to the anterior angle of the coracoid such as in some Plesiosaurians; whereas for me at present evidence of such an imaginary bar is non-

[5]

existent — It is a matter of common knowledge that in these Amphib. large tracts of cartilage remain ossified [illegible] in extent [illegible] especially in Urodela — The [illegible] of [illegible] is an excellent instance of this.

In Ichthyops., even in mature individuals, there appears to have remained always a band of connective substance cartil. or fibro-cartilg. as a symphysis binding the two coracoids together and present in larger quantity at the ant. and the post.

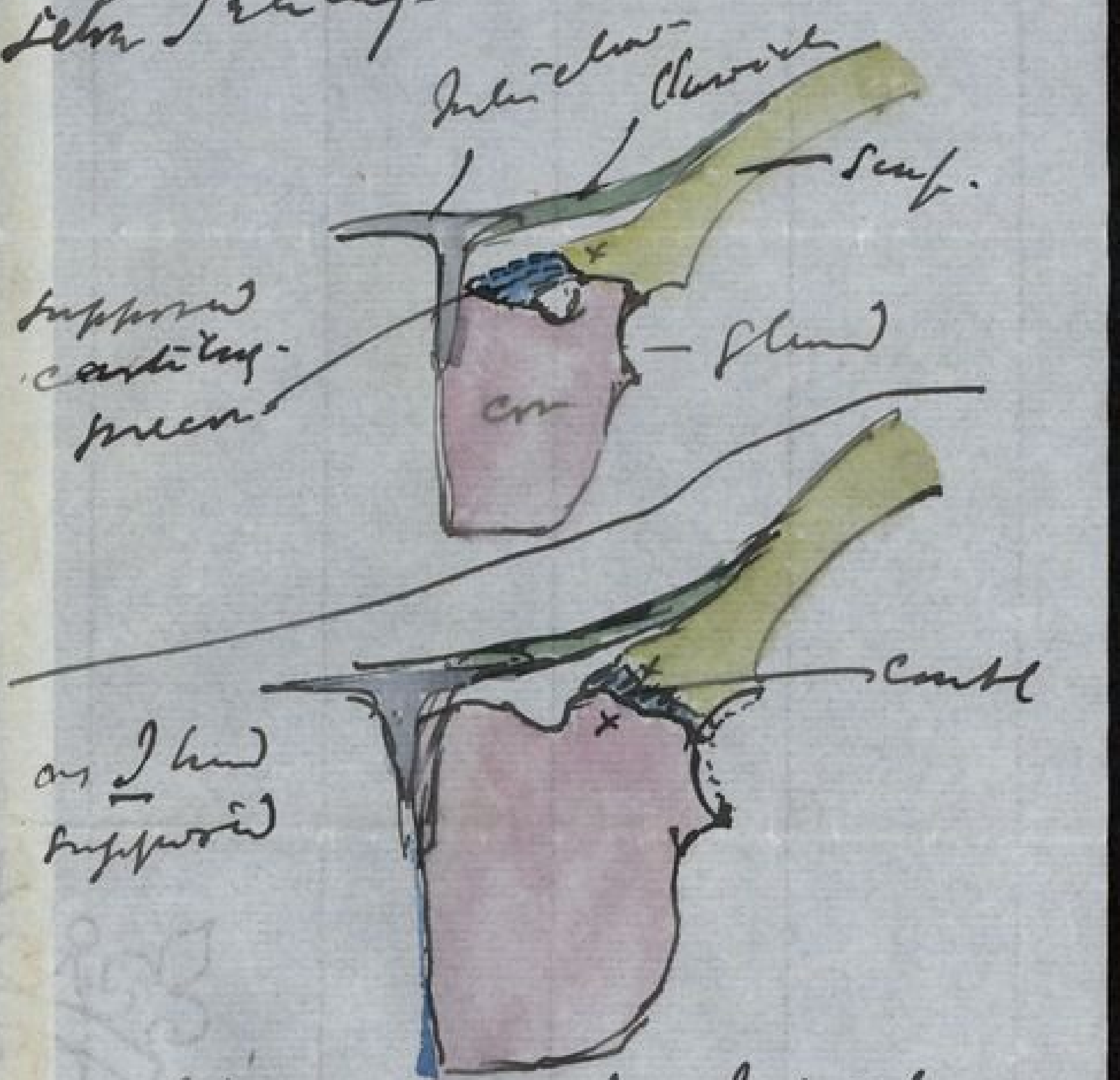
angles: we have similarly persisted a tract of cartilage between the scap. & the coracoid – the rough schemata [on other side] will help to explain better our respective views. –

I regret that the pressure of a medical life has for a long time past left me scanty leisure for these pursuits in which my interest is as keen as ever it was – Believe me

Yours very sincerely

J. W. Hulke

Ichthyos.



I have put the interclav too high, its horizontal limb rests on the upper part of coracoid in all undisturbed skeletons. –

J. W. H.