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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

A2126

18 Frederick Street
Edinburgh
April 16th 1952

Dear Mrs Archer -

Thank you so
very much for sending me such
a fat collection of my father's
letters. I am delighted with
them, may I take you at
your word & keep them some
time, I am just getting over
pneumonia & cannot easily

deal with all the correspond-
-ance that the I. & S. has
brought in -

Yes! it is an enthralling task.
I have got over the pain of
it, & am now enjoying re-living
the past with the Father ^{whom}
whose constant companion I
was, & who was everything to me.

Yours very sincerely

Patrick D'Arcy Thompson

18 FREDERICK STREET,

EDINBURGH 2.

TEL. 32297.

Feb. 14th 1953.

Dear Mrs Archer.

At last I
return your letters, for which
so very many thanks.
I have kept them a long
time, but they have been
all safely together.

The Book goes very slowly,
the more I find out the

less I seem to know!

I may be in Cambridge
in April; if so I shall hope
to call on you & will write
beforehand to tell you my
plans & dates.

Again thank you so much,
Yours V. Sincerely

Arthur D. S. Thompson

AL 129a

TRINITY COLLEGE,
CAMBRIDGE.

TEL. 2001. 27 May 1953

Dearest Sybil

Here is the photograph, the names marked
on an outline of drawing I made against time when
I saw the photograph of the Carl Barton.

Bickler is quite sure that D'Arcy Thompson is
the tallest one, in books, and ^{not} the one marked by
Rolt V.A.T. - Barton & I feel little doubt he is
right. The other names are "Henry Reed" "Goodman?"

"Sydney Hickson" =
I think. (i.e., of course, Balfour)

It is not a Trinity but a Biological group.

Sydney Hickson, I understand, was father to F.F.
Hickson, who could no doubt confirm a day the
identification.

Yours

Dull

* It is possible that the initials of his added
are behind the press, & looking glass position, in
disagreement - but, indeed, second in order.

May 27th 1953.

My dear Mrs. Acher. Professor Gray has just sent me a photograph of the Camb. Natural History Society - 1880 - and you were right, my photograph is a smaller group of the above. I have been able to trace all my "unknowns"

with the exception of one. I am so
pleased. I am only sorry I
do not know you - thank you so
very much. What a lot of trouble
I have to give people with this
search into the past! Thank you
again. Yours ever sincerely
Ruth.

A2129

POST  CARD



Mrs Aker, F.R.S.
52 Huntington Road
Cambridge.

as from / Edinburgh. 7:1:59.

Thank you for your more than
kind letter & the more useful
notes. I do hope I will go into
a 2^d Ed: for I have found quite
a lot of tricky details to correct. Do
get better soon. A good new year
to you both. With my love
Ruth D'Arcy Thompson.

①

42130

Dundee. 31/12/17.

Dear Miss Arber,

Let me thank you very heartily for your letter.

The points you raise are all interesting to me; and besides, a little praise, - even a little flattery, - is agreeable to us all. But more seriously, I beg you to send me more of your criticisms from time to time, as they may occur to you. Though I cannot expect my book to sell very quickly, yet ^{it} is doing pretty well, and I begin to hope that a second edition may some day be required. Several of my friends have been good enough to send me corrections and suggestions, and between them all and together with what I have discovered for myself, the number of necessary corrections is already large.

(1). Your little point about the "root-hairs" of *Trianea* etc., I find I had noted already.

(2). *Isnikawa's* paper came in too late for me to make use of; *Tischler's* I have not seen, - nor (to be honest), had I yet heard of it. *Winge's* paper I have not received, and am anxious to see; as a rule the *Carlsberg* people send me their work, and I am writing to remind them of my existence. My phrase, "in no way specifically related, etc.", was badly chosen. That there is a specific conspacy in these chromosome-numbers I do not doubt; that there is a reason for these particular numbers, and for the frequent occurrence of certain of them, I can easily believe. It is the further argument that these numerical differences (or similarities) are essentially, or causally, related to the specific differences (or similarities) between the several organisms that I find so hard to follow.

(3). As to the "plant-centrosomes" (on p. 179), I throw up my hands at once, and cry "Kamerad, Kamerad". My only excuse is the old, historic one (if it wasn't *John Hunter's*, it was some other great man's), - "Ignorance, Madam, sheer ignorance".

(4). As to your phylletaxis point (on p. 651), I cannot remember from whom I drew the quotation about "distribution to the surrounding atmosphere"; perhaps it was from *Chauncey Wright* himself, but I have no longer

his paper by me. In any case, I did not know what you now tell me, that 'incidence of sunlight' is the factor on which the newer school of botanists chiefly rely. The hypothesis does not commend itself to me at all. It seems to me that the refinements of phyllotaxis would give but a minute and inappreciable increase of illumination, - if they gave any at all: that we find phyllotaxis of the most refined and elegant kind in structures which have little need, if any, of such direct illumination. - But why argue the case? It is always very difficult to oppose an argument in which you see no validity. I don't want to be supercilious, but I should be at a loss to disprove the hypothesis that the Moon is made of Green Cheese.

Very many of such hypotheses seem to me to belong to that class of theories which are maintained for the one and only reason that, if they be not true, one has nothing better to put in their place: just as the view that the pineal gland was the Seat of the Soul was hardly maintained on the ground that, if such soul were not resident in the pineal gland then one couldn't say where on earth it was situated. My old teacher Tait used to warn us against this sort of argument as perhaps the most dangerous of all scientific fallacies.

An old consulting physician once told me that he invariably began by assuming that the family practitioner's diagnosis had been wrong. I fancy that, as I have grown older, I have fallen into the same attitude of mind. I automatically reject the conventional hypotheses, and I very often find better and better reasons for so doing as time goes on. In fact I have had to conceal more heresies in my book than I have allowed to appear, - though, as you will doubtless admit, it is heretical enough.

Depend upon it, we are all of us wrong, and fundamentally wrong, in a vast deal of what we at present say and believe. I have not lost my respect for my old teachers, such as Vines, or for old friends like F. Darwin, but I have thrown overboard most of what I learned from the former, and very much that I have heard from the latter. Life becomes much more interesting, and science more fascinating than ever, when you take ~~away~~ a leaf out of the book of my friend the physician: when, in other words, without any malice or cynicism but with a mere healthy scepticism,

you begin to abandon the attitude of the disciple, and to ask, almost at every turn, whether what you have been told or what you are reading be not 'all wrong'.

But I am giving you advice, as I have neither need nor right to do. That being admitted, let me give you some more. If you have not been in the habit of reading the older books, the books of the 'men of old', do so now. I judge from your one letter that you are very well acquainted, that you are acquainted in an extraordinary degree, with the current botanical literature. But the study of History "maketh a man wise

Yours very faithfully,

Darcy W. Thompson

7th January 1912.

UNIVERSITY COLLEGE, DUNDEE.

The apologies
 write which this second
 letter begins were due to the
 fact that in his first letter
 Prof. D. H. Thompson
 had advised me to study the history
 of my special
 interests already.
 Mrs. Arber

Dear Mrs Arber,

I am more than a little ashamed of my last letter to you. You can easily judge from it how far behind I am in my own reading; but you must remember, in partial excuse, that I live in a bookless town, that I have constant difficulty in getting hold of the books and journals that I really need, and lastly that a very large part of my life is used up in statistical and other official work of the driest and (from most points of view) most unprofitable kind.

I have read your little paper on Guy de la Brosse with the greatest possible pleasure. The fact is that, when I was at Cambridge the study of the historical aspect of science was so utterly neglected, and even derided, that I am apt to forget that many people besides myself have found repentance in these latter days. (In an article, by the way, which I wrote for "Nature" about a twelve month ago, on "The School of Pythagoras", I let loose my feelings on this matter).

As to the hyacinth leaf, you are, once again, perfectly right. But the fact is I was not thinking at all for the moment of strict botanical homologies; in other words I was thinking mathematically, and by no means phylogenetically. I was merely considering a certain "form" comparable to that of a hyacinth leaf, and the mathematical deformations that that form might be conceived subject to. And after all, though you would

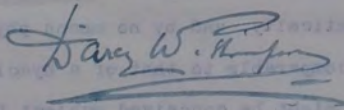
3
doubtless not admit it as strictly correct and as completely covering the case, it seems to me that my argument as to the need ~~from~~ for the development of a node, as the first step from the one type to the other is so far entirely on your own lines.

I see you quote Jessen, - "old Jessen" as we used to call him. His book is not very good, at least I used to think comparatively little of it, but I have not read it for many years. I knew Jessen slightly. He was utterly neglected and indeed despised by the great German botanists of his day, as a man who had wasted his life on the trivialities of historical and bibliographical research. He turned up at the great Manchester meeting of the British Ass., where there was an extraordinary gathering of botanists, chiefly German. Hardly any of them knew him; they kept asking "who's that"; and when they heard it was "old Jessen" they said rude things of him.

As to Hort's "Theophrastus", it is (largely owing to Dyer's help) a useful and a handy book, but I have found, or think I have found, a terrible lot of blunders in it. It is just not good enough. It is a thousand pities that Dyer has never been able to utilize to anything like the full his great knowledge of classical botany.

I send you, as a small and partial peace-offering, a few miscellaneous papers.

Yours very faithfully,



UNIVERSITY COLLEGE, DUNDEE, St Andrews.

22nd January 1918.

A2132

3

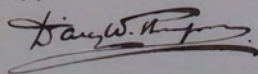
Dear Mrs Arber,

Coming to Dundee for my weekly visit (and lecture) today, I find your letter and parcel of papers which I shall take home to St Andrews with me.

As to Sagittaria, I have not the details at my fingers ends nor can I lay my hands on a leaf or figure at the moment. But I remember studying it years ago and I found it a very difficult problem, - which I don't think your diagram or notes sufficiently explain.

To the best of my recollection the difficulty lay (1) in the sharp cusps, which of course can never, ~~by any mathematical process of deformation,~~ be derived from portions of a continuous curve, by any normal process of mathematical deviation; and (2) the fact (if I remember rightly) that the lower veins terminate in the margins instead of being prolonged upwards to the apex. I formed the impression that this and some other (if not all) sagittate leaves represented a portion only of the typical leaf, somewhat as in the following diagram. But I put aside the problem at the time as too difficult for me. I ought to have my old drawings somewhere, but I don't know where to lay my hands on them.

Yours very faithfully,





(2)

A 2 133

St. Andrews.
18/xi/18.

Dear Mrs Arber,

It was good of you to send me not only your paper on Phylloides, but also your short but most interesting account of your Husband's life. When your husband passed away I did not venture to obtrude my sympathy upon you. It was by no means for want of thought, - I simply did not dare. Moreover it came at a time of so great sorrow, when the losses among my own friends and immediate circle were so tragically numerous, that to think and speak and write of these things had become too painful to be borne. ~~Substantially~~ All the same, I should like to tell you now that I thought much and often of your great loss; and I was and am able to appreciate the fact that science lost much also, for your husband had sown plentifully, and though he had reaped not a little, he was not permitted to gather in his sheaves.

I have already read every word of your brief tribute to his memory. One or two minor points interest me. I was well acquainted, in my boyhood in Edinburgh, with Dr John Sutherland; I remember him with affection, and have some reason to do so with gratitude.

What you say about your husband dating a certain modern epoch of Botany from the date of his own birth is, I think, no uncommon thing, but a general and natural tendency. I rather think I have put it in words myself, in some lecture or essay; and at any rate it is a favourite reflection of mine. The most important date to every one of us is the date when we were born. On this side is a world of which we have been a part, - our very own world. It does not matter though we were in our cradles, - there we were. But on the other side is a

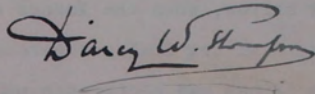
* Dr Sutherland was my husband's great uncle. Agnes

another world altogether, quite strange and distant, in which we had no part at all. They are the old world and the new; and they are quite different one from another.

I have written little or nothing lately to interest you. perhaps you might care to read the enclosed debate, in which I took part. But may I ask you to send me back the paper, some day or other. Copies are scarce, and I am not sure that I have another.

Believe me,

Yours very faithfully,

A handwritten signature in cursive script, reading "Daisy W. Thompson". The signature is written in dark ink and is positioned below the closing of the letter. There is a small red mark or smudge on the paper just below the signature.

(5)

AR 134

St. Andrews.

10th Oct., 1921.

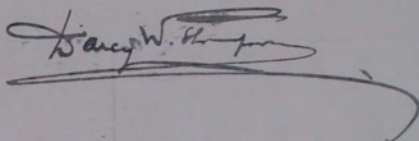
Dear Mrs Arber,

I happened to come in from London this morning and found your letter and pamphlet on my table. Your letter was the only really pleasant one among many which awaited me.

I had clean forgotten my poor little joke about the Moon and green cheese; but somehow, now that I am reminded of it, I am not ashamed of it.

There are still traces of original sin, as it seems to me, in your paper; but it is clear that you are on the high-road to complete repentance. I need not proceed to quote (I mean, from Scripture).

Yours very faithfully,





Here is a little bag wh. I have
just written, & wh. may perhaps answer
you. So it looks when you have read
it (or if it fail to interest you, without
reading it), for it is a very odd.

L. J. W. 17/2/21.

⑦

al 136

St. Andrews.

5/3/30.

Dear Mrs Arber,

I happened to come across a little bundle today of a very trifling paper, which I suppose I had never distributed owing to a conviction of its worthlessness.

Instead of throwing them all away I send you one, - because you seem to like the few things I write, and because (for once in a way) I rather like the look of this one myself!

Yours faithfully,

Diary W. Steyer

THE ORIGIN OF LONDON: A REVIEW.¹

WHEN I was a boy my grandfather told me to walk through London town of a Sunday morning when the streets were quiet if I wanted to learn the lie of the land. When Oxford Street is thronged with traffic it looks all but level, for you see but little of it at a time; but look along it when it is bare and empty, and (levelled as it in part has been) it is still all ups and downs. Whether in town or country, the topographer begins with the hills; the hills show the valleys, and the valleys the watersheds, the lakes and the rivers great and small. You may see or divine the tracks of men, the routes of armies, the run of old frequented pathways and the lie of the greater highways, finding their levels, skirting the hillsides, crossing the passes, fording or bridging the rivers; and at last the map fills itself in, as it is bound to do, with the ordained meeting-places, resting-places, camps and market-places, which grow into towns and cities, the settled habitations of sedentary and peaceful men.

After some such fashion as this Mrs. Ormsby tells of the natural topography and the gradual evolution of London by the Thames, and her little book is very pleasant reading. I have but one grumble to make, and I will say it and be done with it. Mrs. Ormsby is, to my thinking, a trifle over-conscientious when she tries all the while to explain London topography by its geology, to make us understand how the various clays and sands and gravels determine the hills and plateaux, saddles and valleys, springs and water-courses, which constitute that somewhat complicated topography. It is all very true; geology is at the root of the matter, but the roots are both deep and tangled. I for one should be quite content, to begin with, to take the geology on trust, to be taught the topography such as it is, and to be shown then how it explains the city's site, its ancient boundaries, its main highways and

¹ *London on the Thames. A Study of the Natural Conditions that influenced the Birth and Growth of a Great City.* By H. Ormsby, B.Sc. London: Sefton, Praed and Co., 1924. Price 7s. 6d. net.

salient landmarks. After all, Mrs. Ormsby does all this and does it well; we have not much to grumble at.

With labour and pains men have built harbours which nature never planned, and carried roads where nature never meant them to be; but for the most part the traveller follows very ancient routes even to this day. A few great natural lines of communication cross the continent: thence from the Rhine to the Thames, from the Somme to the creek at Dover, from the Seine to Southampton Water the great streams of traffic converge (as they did two thousand years ago) on London town, approaching by east and by west of the ancient Forest of the Weald. The muddy flats and swamps of Westminster and Fulham, of Lambeth and Battersea, where the river broadened into shallows, mark (somewhere by Westminster) an ancient crossing-place or ford; the higher banks and narrower stream made way a little later for London Bridge. It was "a place of broad rivers and streams." Between two hills the Walbrook, with many tributaries, ran its short but rapid course to the Thames at Dowgate, hard by where Cannon Street Station stands. To the eastward ran the Shoreditch, in an all but parallel course towards Tower Hill. On the western side from Hampstead and Highgate Hills ran down the River of Wells, or Turmill Brook, by King's Cross and Bagnigge Wells, through Clerkenwell and Smithfield, by Saffron Hill and Snow Hill, along a devious course which is still a parish boundary, to the tidal estuary and ancient harbour of the Fleet. So, bounded by two streams and traversed, drained and watered by a third, rising steeply from the great river to the low heights of its two flat-topped hills, the City of London came to be.

At Westminster we may trace Thorney Island and Cowleete, the Horse Ferry and the Abbot's Mill. Farther west we follow the Westbourne through Bayswater and Kensington to Chelsea; or the Tyburn or Aybrook through Regent's Park and Hanover Square and St. James's Park to the flooded levels where Buckingham Palace stands. The Aybrook crossed Piccadilly just at the foot of the hill, after swirling round between Devonshire House and Lansdowne House; and it turned an old mill in Brick Street, hard by the Savile. Mrs. Ormsby does not tell us (perhaps she does not think it true) that that tiny but ancient street was at one time 'Brig' or Bridge Street—a long while ago.

We need follow Mrs. Ormsby no farther, though all this is but the beginning of the story. If we be curious to know a great deal more of how London streets and markets, water-ways and ancient harbours, grew up naturally on the hills and in the valleys, by the river and its creeks, we have but to turn to her pleasant and instructive book. In the last chapter we shall be shown how minor topographical features, significant at first, ceased gradually to be important; how the streams hid themselves underground, and how Old London passed away. In the end we are left with much to think of, and not the least wonderful part of the whole story is how London, like Rome and Constantinople and Paris, but like scarce another, outlasts the vicissitudes of time. New worlds are discovered,

old trade-routes get deserted, great cities fall into decay. Petrograd and Berlin, New York and Tokio come into being; the wealth of Venice, Augsburg, Bruges passes away. To-morrow is on God's lap and to-day nothing is secure. But still the great arteries of the world go out from the heart of London Town, and their pulse beats time to the tide on Thames River.

D'ARCY W. THOMPSON.

(8)

Ac 137

St Andrews.

June 26/7/31.

My dear Mrs Arber,

I don't think I sent you a line of thanks - as I ought to have done and meant to do - for your "Crucifer" paper. You sent me, by the way, two copies; and as you probably have none too many, I return you one.

One little point only: -

How can you expect the pedicel to be radially symmetrical, when it obviously lies, so to speak, in a bilateral field? It doesn't get time, as it seems to me, to shake off the influence of the axis, and to recover its own radial independence.

I'm delighted to see you make short work of the ancestral "carpellary leaves". I can see those "leaves" in my mind's eye; but they are like General Wade's roads - "before they were made".

It was a great pleasure to meet you the other day, at our hospitable friends'. I have been wanting to meet your brother for a long time; but the occasion never comes. You might ask him why on earth, with all the money he has had to spend on Greek, he didn't make a Chair of Greek Natural Science

1813A

(8)

35 ANSWERS

- and give it to me!

Yours very sincerely,

Ray W. Rogers

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ST. ANDREWS

— FIVE —

7. 30 AM

12 NOV 32



POST



CARD

— FIVE —

7. 30 AM

12 NOV 32



Mrs Arber.

Huntingdon Road.

Cambridge.

(9)

AC 138

Thanks for your letter. The little Fuchs I had already seen in the Catalogue; but thought it rather too imperfect to be worth buying. The man in Pall Mall, opp. the Athenaeum (I forget his name) had a slightly imperfect copy of the big Fuchs (1542) some three months ago at the moderate price of £20. I screwed up my courage to the buying-point - but too late. It had been picked up promptly.

I have just received some copies of a little booklet I wrote two or three years ago, and send you one. If I did so when it first appeared perhaps you will send this copy back. No-one else is likely to want it.

J.W.S.

POST



Mr. Allen

52 Huntington Rd.
Cambridge.

Sunday.

AL 139

(10)

I am delighted to have ^{even} a line from
you! I often think of you, for I'm here talking
a good deal of which is Hubbs, - without having
possessing any, - only longings to. I suppose you know
the Catalogue published by ~~the~~ L'art Américain (Zinnich), in
1925. I kept it, alas, for various bookseller's Catalogues,
So Satan first, etc. Frank W. Thompson

19.4.57.

(11)

AR 140

Thank you for the new edition.

Mr. I'm not coming up to give
a Hist. of Sci. lecture. I must
miss lectures, without a fee, but I
simply can't afford to pay one here

for W.A. & include it to be
given. The same week brought a
invitation to Augsburg, on the same
terms! JW, obviously and necessarily,
to refer both.

Henry W. Thompson

Royal Society of Edinburgh.
22 George Street. EDINBURGH, 2.

TELEPHONE 2281.

22. May. 1957.

My Son, My Son,

For my's sake Suit say a
word about it! I must comply, a
gentle, for the world. It's to refuse,
simply because I'm not well enough to spend
time on travelling the Indies or: Muslim
Ind. has come willingly. for a or for.
So please 'keep on saying' nothing!

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See, if you can not find it, the new (May)
number of Isis, p. 96, for an interesting
article by A.C. Kuhn.

Yours,
Darcy W. Thompson

S. 850-c.3 .1898. AR142 (13)

ROYAL SOCIETY OF EDINBURGH

TELEPHONE 22881

22 GEORGE STREET, EDINBURGH, 2

St. Andrews. 16 : 2 : 39.

My dear Mrs Arber,

I am reading, and much enjoying and admiring, the second edition of your Herbals.

Do you happen to know a very interesting Sale at Sotheby's, in 1898, and recorded in Book Prices Current for that year. If you don't know it, it is well worth looking up; and I am curious to know, but have not yet taken the trouble to enquire of Sotheby's, who the fortunate owner was Dr Payne had a superb

collection, but this can't have been his,
for he was certainly alive ten or a dozen
years later. I see you pay your acknow-
ledgements to my young friend W.T. Stearn.
Did you know that he was a find, a lucky
find, of mine. I came across him while he
and I were mooching round poor David's
book-stall.

There is a Life of Fuchs, by F. Henman,
which you have not quoted, and which I have
not seen.

My best regards to both of you.

David W. Thompson

St. Andrews. 10. v. 41.

Dear Mrs. Aches.

Whatever you wish always interests me, & I was especially interested by yr. recent note on the coloured Herbs. The colours look very unattractive — but I have long suspected that this must be due to fading, & chemical change, & I think they looked very different when they were new.

I wonder whether you expect, such as Arthur Lawson, & Rowley at the Nat. Gallery — & I'd. wd. do something to restore their beauty.

You doubtless know Ormsted's originals — & the selection of them that were published some time

ago. I wish to find out how it is, but
I have only a few old plates of. I have been
gone. — On the way. So I have
2- the paper by him [largely rewritten by me?]
in the Galles of the [unclear] in the T.A.S.E.?

==
You probably saw — if not it will interest you —
a curious item in a Catalogue of Darius's
a few months ago — a Fuchs, 1542, with
notes by a certain Henry Dingley of Stamford
and a Kestrel. He had bought the book in the
Paul's Churchyard in 1550, for not less than £8.
So one may purchase the book at present prices.
==
Had someone is dead, or will not be dead.
But when of Fuchs with his Nursery House

books for me, in my baby-hand, they were all
hand-colored - like the books illustrated
by Charles Bonnet. And nights with col-
oured sky were, - by night. It's a
wonderful world, I say, ~~the~~ it is so unbound
what, one alone at a time.

The one with 72 plates - from your study.
& one more study, thank to Press.

My love goes to you - to the Lassie!

Yours truly,

Daniel W. Thompson

St. Andrews. 27 v 41.

Dear Mrs Arber,

I was just meditating another attack upon you when your letter came.

I had heard of your Brother's loss, but not a word of the tragic circumstances. I am shocked indeed - but we grow case-hardened to tragedy.

Do you know anything about John Clayton, the Virginian botanist? If you do, I shall put some definite queries before you. Meanwhile, let me simply say that his biography in the DNB is very perplexing. Either it is all wrong, or there were two Virginians, father and son. For the John Clayton is said to have been born in 1693; but there are papers in the Phil. Trans (vols. 17, 18) on Virginian natural history several years before that date. Are these by the Father? The botanist, who was in correspondence with Gronovius about 1740, may well have been born in 1693, as the DNB says, *but ed. 1804 has him in correspondence with Gronovius who died* ~ 1712.

There is also a paper in the Phil. Trans., a very interesting one - shewn me by our chemist - by John Clayton, on Coal Gas, I forget the date, but it was in or about vol. 41, the same vol. (I think) which has one of the Virginian botanical papers. Was this by the Botanist? Our chemist, John Read, takes it for granted that it was. I suspect that it

This J.C. was the first to wish Coal Gas.

may have been by yet another John Clayton - whose article follows in the DNB, and who lived (mostly) in Lancashire. He was in correspondence with various FRS's, and (if I remember rightly) was at loggerheads with Hans Sloane.

There is a tangle somehow, and we lack the literature here which might help to unravel it.

My Father's Nursery Books were illustrated by C.H. Bennett, and often appear in Bookseller's catalogues under his name. They came out, like C.H.B.'s other works, plain and coloured, the latter issues coloured by hand.

** My daughter
Agnes Allen*

If Muriel is really reading G. and F., first edition, with the care you speak of, she will have come across many an obsolete and mistaken ~~amistaken and obsolete~~ thing.

As to the colouring of Fuchs and Co., it is the greens that so jar upon one; and it is they that I suspect of having changed. That should narrow the chemical problem considerably.

Ever yours - yours both of you,

Henry W. Robinson

St. Andrews. 26/7/41.

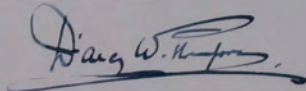
Dear Mrs. Arber,

My old friend A.P. Laurie, to whom I wrote for information about the pigments, has been a long time of answering my letter, and even now he has found little to say. But I send his letter on to you, for what little he does say on that subject.

His postscript will convey no meaning to you, but is curious and interesting to me. I had asked him whether he had any personal recollection, or family tradition, of his godfather, the once celebrated 'rof. Pillans, long Headmaster of the Edinburgh High School, then 'rof. of Latin in Edin. University, who invented, and was the first schoolmaster ever to use, the Blackboard. All this story I told, at some length a good many years ago. Byron lampooned him in E.B. and S.F. no one knows why. "And paltry Pillans shall translate his friend". He was really a man of the highest and most lovable character.

When you write, or if you write, tell me any Cambridge news you can. My few remaining correspondents there seem to vie with one another in their ~~use~~ aversion to gossip, and consequently in the dullness of their letters.

Faithfully yours,

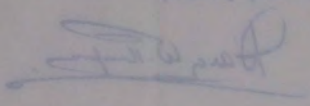


P.S. Important

I am anxious to find someone to do me a few
fruits - a quick sketch - drawings for G. & F. The young man
also is generally at hand to help in better employment - having -
body!

Just as I was about to post the letter it suddenly occurred
to me to ask you. Have you a little time to spare,
I will go to my very happy - good 2
time

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St. Andrews. 7/8/41.

Dear Mrs Arber,

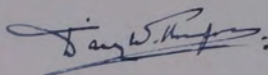
Now you are going to do a drawing for me - and perhaps two. But sufficient for the day etc.

Here is rough model, in brown paper, of a Bird's pelvis. The whole point is to shew how a more or less flimsy piece of paper has strength imparted to it (1) by a T-piece, represented by the backbone - but that doesn't come into the drawing. (2) by bending over, and (3) - which is the main thing for model and drawing to illustrate - by folds or ridges, converging over the acetabulum, and forming what an engineer would call stiffeners.

The model is, of course, a rough one; I made it while I drank my coffee after supper last night. And I make still rougher ones ~~sometimes~~ in Class, now and then. But it serves its purpose; and I send together with it the actual pelvis, in order that you may keep a check on the model, and improve it as you think fit.

I could draw it quite nicely on the blackboard - but it's the only thing I can draw on! And it has got to be a sort of blackboard drawing, and no more. Just a few strong lines. Draw it from the left - the side marked A; and incline it so that the top-side, B, just comes into the picture.

My very best thanks to you, now and always.



Are you fond of Milton? You are fond of many nice things. I am a little excited over a conjectural emendation to Comus, 554 (or thereby); where it suddenly occurs to me that to read drowsie-freighted steeds will remove an old obscurity. I am

asking a friend in Trinity to have a look at the MS there.

A2147

(18)

St. Andrews. 28th August, 1941.

My dear Mrs Arber,

I'm distressed to think that you may have misunderstood my silence, and come to think that I did not appreciate your drawing!

Not at all; it's I who have been under the weather. I got an attack of sore eyes - or sair e'en, which is worse - and was for some days quite unable to work or read. And I was getting no better, in spite of various drops dropped in, and lotions applied with a misshapen and misused sort of liqueur-glass! At last my doctor had a brain-wave - the last thing I expected of him - and suggested it was all due to some fine ~~ph~~ plants of *rimula obconica* which my wife kept bringing into the house. I also might well have suspected this before. Anyhow we promptly threw the pots out of window, and I began at once (or very soon) to recover. Never again!

Your drawing will be exactly right when it is finished. Keep it diagrammatic. Don't attempt (for instance) to show bits of the other side through the holes in this! The fact is

my own paper model is just a bit too good, too like the ^{real} ~~man~~ thing.
A doll may be very like a lady; but when comes to draw it,
it mustn't be a lady, but a doll.

I go up to "ethy Bridge, on Speyside, tomorrow, and hope to be
able to stay there all S_eptember. Why I want a change I don't
know. Perhaps it has something to do with Eechner's Law. Anyhow
it seems to do one real good to sleep in a strange bed, look out
pf a new windaw, and breakfast off different plates.

Did I tell you that I am coming (D.V.) to Cambridge in Oct-
ober to give a little lecture - I don't know exactly to who. It
is some stunt of George Salt's, of Kings.

Have you seen Vaughan Cornish's delightful little book on
Sacred Thorns? He mentions the one destroyed at Downing, to make
room for some of the Museums. I happened to mention it to one
of our Senior lecturers, an excellent ^{at}inist, and allowed myself
to say that it would have helped to save the soul of Cambridge, if
the Museum had had to give place to the tree. But my colleague
said, "Away with all that sort of that thing. Cut 'em down, root
'em out. Don't you see that that's what keeps us under the power
of the Vatican!!!"

Diary Williams

Al148 at Nethyville Hill. (29)
Dumessie -

6.12.41.

My Dear Mrs. Ash.

Please send back the
drawing, shaded or not! I am
more than half amused at your distrust
of your own power, - for I know you can
draw very well.

Do not feel that
birds' pictures are not quite dans
vos chades, here (just to have
something from you) are a couple of

rubbing of dog-wild leaves - which
want to be under glass, as shown

Thank you. These you will see
within the least trouble, — and
quickly, please.

I don't get up into the higher hills,
so see no rare plants at all.
— *Saxifraga alpina* here & there, *Goodenacaceae*
family common, *Trichostema* all over, *Malva*,
Thlaspi here, so far. Beautiful as these
words are. They are barren & lifeless
compared with those in Ireland.

Ever yours.

Darcey W. Thompson

The occasion of
this was my
election as the
Fellowship) to Royal Society
Agnes Arber

A 2149 (20)

DEPARTMENT OF NATURAL HISTORY,
THE UNIVERSITY,
ST. ANDREWS,
FIFE.

15.iii.46.

My dear Mr. Arber,

My sincere and delighted congratulations.
You are at the head of the list, — and far in the rank as
nowhere!

Ever yours truly,

Darcy W. Thompson

A 2150

8/xii/46.

DEPARTMENT OF NATURAL HISTORY,
THE UNIVERSITY,
ST. ANDREWS,
FIFE.

~~26~~
27

Dear Mrs Arber,

Congrats are very pleasant, - and some pleasanter than others! My best thanks to both of you.

Do you know, - you of course know of, - Kingdon Ward. We are asking for a Civil List Pension for him, which he appears to be in need of. I shall be sending for your signature one of these days.

Yours ever faithfully,

D'Arcy W. Thompson

Ac 151

22

DEPARTMENT OF NATURAL HISTORY,
THE UNIVERSITY,
ST. ANDREWS,
FIFE.

14th March, 1947.

My dear Agnes,

A favourite pupil of mine, Margaret Preston (daughter of my colleague in Natural Philosophy in Dundee) is working in the Strangeways Laboratory. She is a very sweet and very intelligent young woman of a type that was never common and is rarer now. If you can do her ever so slight a kindness I shall be grateful indeed. I don't want her to see Cambridge entirely through the spectacles of a highly specialised school.

I have no very good news of my own to give you. I went off to India as you probably know, but I was out of luck and found the journey too much for me. I have never got back my health and am now in bed with a sick nurse in attendance, a state of matters such as I have never known since I was a boy. My doctor recommends patience and, given enough of it, says that it will see me through, but I am a very different figure to what I was three months ago, when I was travelling up and down to London and Edinburgh, lecturing at the Royal Institution, and doing many other things with complete ease and enjoyment.

Ever yours faithfully,

D'Arcy W. Thompson

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P.P. m.D.T.

Mrs Agnes Arber, F.R.S.,
Hills Road,
Cambridge.

St. Andrews.

23.xi.47.

My Dear Aves.

Many thanks indeed for your letter. As to the little article, I felt that, when I had finished writing it, I had hardly entered on my subject: but there was no room for more. One could add scores, if not hundreds, of examples: and one could wish another chapter in the class of books that one used to buy for 1/- or eightpence, & that was cost £5 or more.

Talking of Herbaria, I see that Arnold Kuhn's Library has now gone to Yale, where it adds on to the great collection of Harvey (Cookin), & John F. Fulton. I think that Gustav Seemann's small but very choice library has also gone to America; but who, or what institution, has purchased it. I do not know. If you know,

you might tell me.

By the way, I saw a copy of Micheli's Novae Plantarum Genera, (Florence, 1729) in a Catalogue only to the day, for two guineas: but I did not buy it, for I have a copy already. It is quite a nice book, and I don't know why it should sell

compunctively chiefly -

I am sick tired to the bone, & may be so of your part
if not all of the winter. My second attack of pneumonia hit
me very hard. But, apart from the poor chest. I feel very well,
& I have 2 Harvard students here, & 2 friends, & enjoy
living here.

Very best regards to both of you -

Darcey W. Thompson

Letter acknowledges "Water Plants"
my copy my book (1920) &
Carruth University Press; 1920)
Professors of Botany Thompson
Agnes Arber

AR 153

44 South Street.
St. Andrews.
2nd October, 1920.

My dear Mrs Arber,

I am glad indeed to possess your beautiful book, and happy and proud that you should have sent it to me. I ordered it some little time ago for our Library, but I have had little time, or hardly any, as yet to read it. Now that I have it at my elbow, I shall soon read more; it might be rash to promise to read it all, interesting as it is, for I have forgotten so much of what little Botany I ever knew that a multitude of the things you speak of are only nomina nuda to me, and I cannot easily picture them in my mind.

That your book is a beautiful one is literally true, and it is beautiful both outside and in. A few years ago I should have said that your drawings, or some of them, were the most beautiful I had seen in any modern book of botany; but botanical illustration has taken a new lease of life (in black-and-white, I mean), and a lot of recent work is excellent. Among the best of it yours holds its own. That you are fond of Japanese work (as I am), is obvious enough.

I will not attempt, or presume, to criticise a word you say, at least on my partial and fragmentary reading of your book. You leave ~~most~~ many things unexplained, but of these I have not yet come

across one of which I think I know the explanation.

You quote Guppy often, and he is a man whom I have often wanted to meet. I have known for a long time that he is a man of great ability and ingenuity and insight.

I have never been able to make ~~anything~~ anything of Bateson's theory, or speculation, quoted on p. 334. At best it seems to me only an aphorism, and to have in reality no deeper meaning than to say that all our Literature is contained, potentially, in the Alphabet, and all our Music in Do, Re, Mi.

Your other quotation from Bateson, in the opening sentence of your Preface, is of a different kind, and its subject involves questions of the deepest importance. Here is something for you to think of, - forgive me if I have mentioned it to you before.

Sixty years ago, naturalists (I believe) imagined that the main lines of organic evolution, of the phylogenetic tree, would be satisfactorily ascertained without delay, while the details would be gradually ^{but} slowly filled in. (To choose zoological illustrations, we find as a matter of fact that we know some of the isolated details with truly wonderful completeness, such as the descent of the Horses or the Crocodiles; but of the main lines of the alleged tree; of the origin of such great limbs or branches as the Coelenterates, the Worms or the Vertebrates, we know ^{to this day,} amazingly little, and very possibly nothing at all. This is really an astonishing thing, a thing with no satisfactory explanation, a real mystery of evolution and of classification.

A suggestion of Schiaparelli's leads on to such considerations as the following: -

You remember how I have used the mathematical illustration of a circle modified into an ellipse, and one ellipse into another, and so on. Here, within the limits of a single mathematical family, you have an infinite series of possible, or potential, modifications, of evolution of forms; and though it is, in a sense, a little harder to cross over from ellipse, say, to parabola, etc., the thing is still mathematically feasible, and even simple.

But take some other mathematical figure belonging to a different family altogether, a square, for instance, (a mathematician might carp a little at the illustration, but it is simple and may serve our turn), and the case becomes very different indeed; for ~~for~~ no simple transformation can turn the ellipse, or the circle, into a square, in the sense or way in which our conic sections were transformable one into another. There is a great gulf fixed; and what is more, there is no point ^{any} even of approach, for no ellipse is no more like a square than any other.

Now would it not be curious indeed if we were to be able to show that something of the same sort of fundamental difference existed say between a protozoan and a Coelenterate, or a vertebrate and any ordinary invertebrate, as exists between two different mathematical families of curves: in other words, that within each, simple, straightforward 'transformations' are possible, but between them they are illegitimate or impossible.

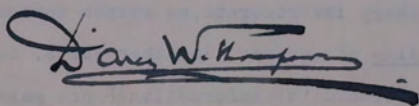
That, in other words, there is a very deep and real meaning in Cuvier's 'Types', or in groups analogous to them. And that, in short the search for transitional forms which shall connect, or which actually connected, these great 'types' one with another, after the fashion of the transitional ~~types~~ forms within the ring-fence, is a search in vain.

All this, even if it be true, of course involves no doctrine of 'special creations', no denial of continuous and all-embracing 'evolution'. But it ^{does} imply a sort of 'Mutation' (to use that word for want of a better) of a very singular and important kind.

In mathematics, the thing is simple and obvious; and I begin to believe more and more that our 'Morphology' is here, as well as completely elsewhere, analogous.

Your book has one very pleasant effect on me, in bringing back and home to me old days by the Cam and Ouse and all the pretty ditches, and old days also among the Galway bogs, and by the Corrib, where there is such a goodly wealth of aquatic plants, and contrast to our poverty here. We were rather better off in Wiltshire, where for instance we had Potamogetons enough and even to spare; but it is something one misses here.

Ever yours faithfully,



This is a copy of part of my answer dated
Oct 10. 1920

Your mathematical illustration of the impossibility of passing from one family of curves to another, is most suggestive. I have been wondering whether orchestration does not yield a similar analogy. It is true, isn't it, that there is every gradation within the families of instruments, e.g. wood-wind or strings, but no half-way houses between them? What you say on the zoological side is perfectly true of botany. All the trend of modern work is to carry the great groups further and further back as discrete entities. For instance we have been in the habit of taking it for granted that the Pteridosperms were derived from the Ferns; but Dr. Scott now thinks that they (and hence the great group of the seed plants) cannot be derived from any known group of fossil ~~plant~~ ferns, but carry back independently into an unknown past. Even among the Flowering Plants, Dr. Guppy takes the view that the evolutionary processes that resulted in the separation of the main big families, are something radically different from the "differentiation" process that has produced the genera and species as we know them. I feel as though there may be something in Guppy's idea, but I can't get a clear mental picture of it.

AL 154

UNIVERSITY COLLEGE, DUNDEE.

Will very apologise for the
letter of mine!

David W. Thompson
5.1.17.

POST



CARD

A2155



Mrs Arber.

52 Huntingdon Road.

Cambridge.

Your two letters have been most helpful.
I spent a couple of hours in the L.S.
over the Linnean copy of the Pinax, and
hope to return to it. As soon as I have
time I shall look up Candolle: I knew
of that paper ⁷⁶ long ago, - but had com-
pletely forgotten it.

Henry W. Hillebrand