



British
Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

Gateway to the Earth

The GB3D Fossil Types Online project (www.3d-fossils.ac.uk) – the inside story

JISC

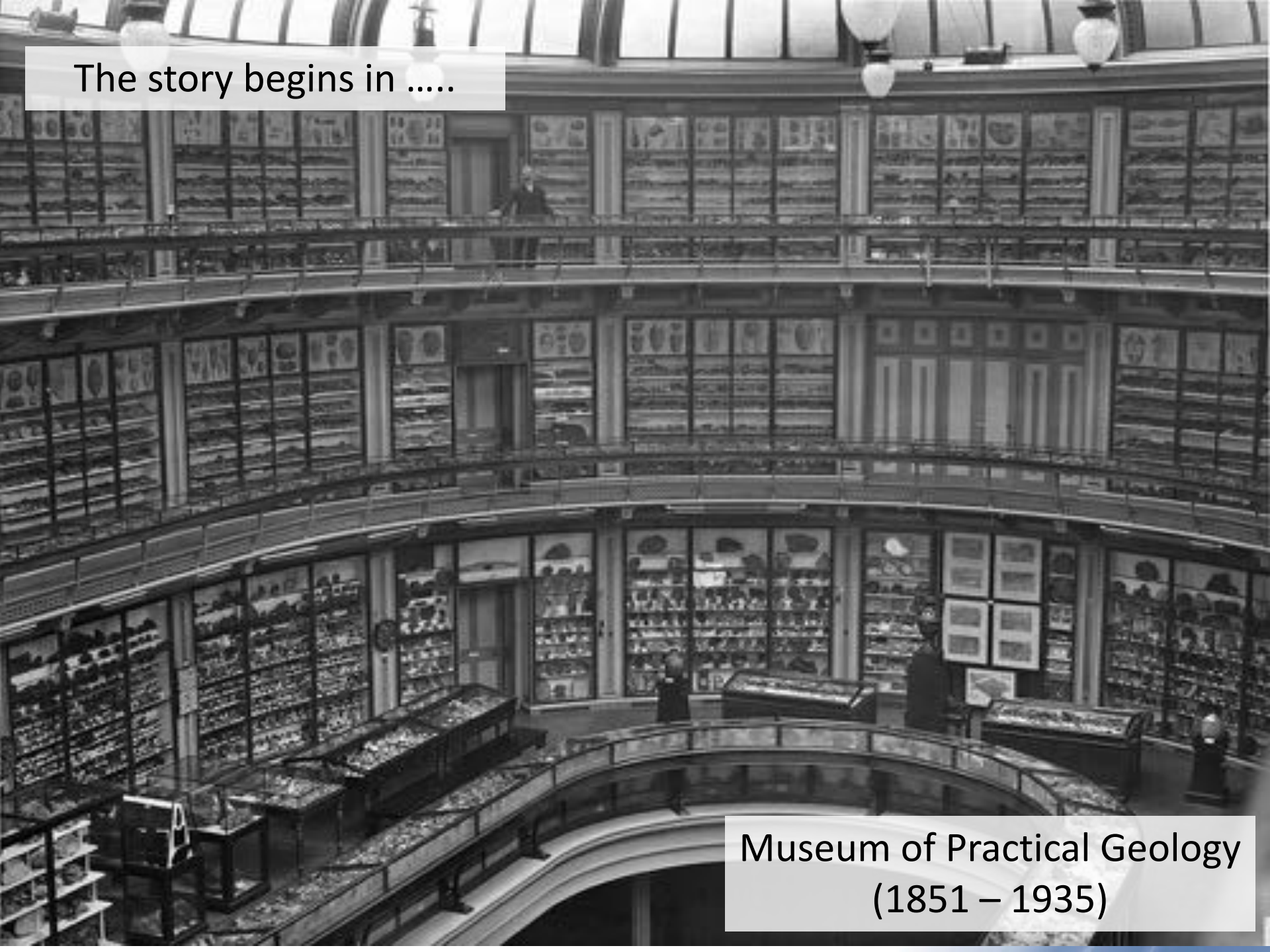


national
museum
Cardiff
amgueddfa
genedlaethol
caerdydd



Mike Howe, *British Geological Survey, Keyworth, Nottingham, UK*

The story begins in



Museum of Practical Geology
(1851 – 1935)

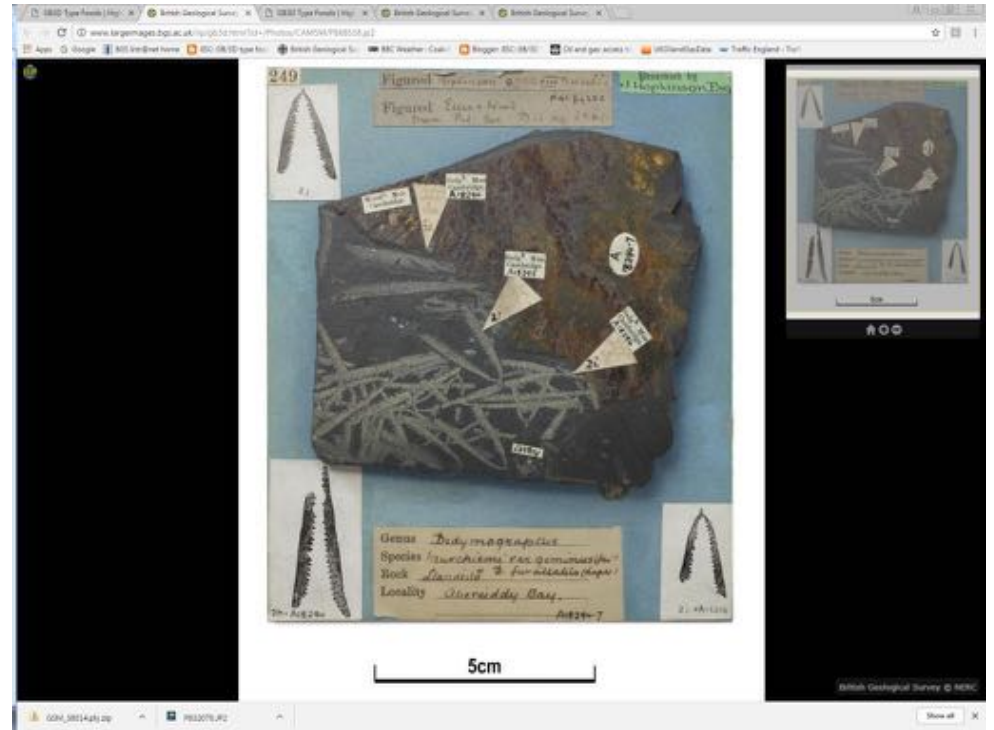


and continues at.....
BGS Keyworth, 1985 -

Plan

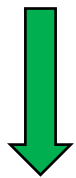
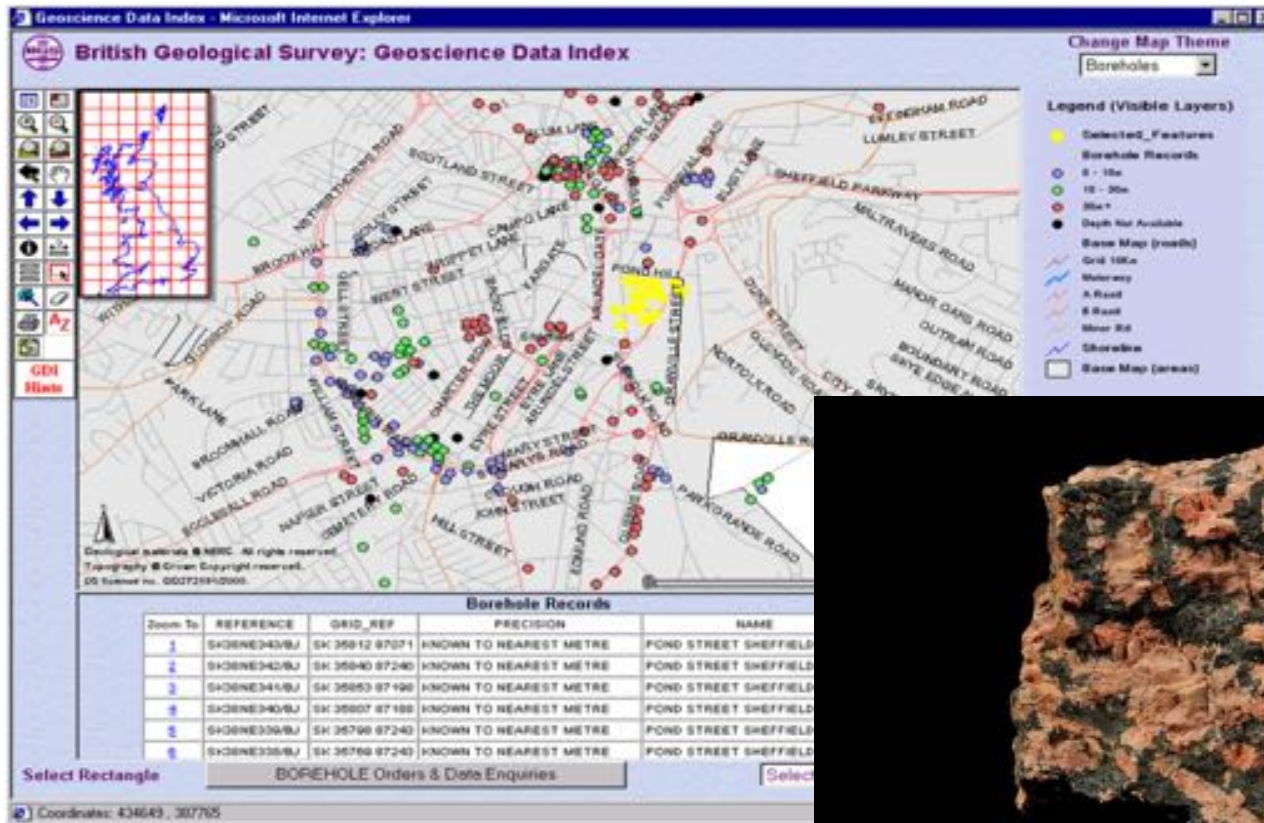
- Brief history of collections digitisation at British Geological Survey
- The Jisc GB/3D fossil types online project
- The future – but funding?
- Lessons learnt





Brief history of Collections digitisation at BGS

British Geological Survey: Digitisation Timeline



2000 – Online images and GIS (with collections data)

2000

2002

2004

2006

2008

2010

2012

2014

British Geological Survey: Digitisation Timeline



2001 – “**Virtual Museum**” bid to *New Opportunities Fund* failed

2000

2002

2004

2006

2008

2010

2012

2014

British Geological Survey: Digitisation Timeline

The image displays three screenshots of the British Geological Survey (BGS) website, illustrating the digitisation of various geological collections over time.

- Top Screenshot (2000):** Shows the 'BGS rock collections - Search form' page. It features a search bar and a sidebar with navigation links for 'Our data', 'Map viewers', 'Data collections', 'Index', 'Borehole materials', 'Geomagnetic data', 'Geotitles', 'Groundwater level information', 'Lenton of rock units', 'Linked data', 'Palaeontology', 'Rock classification scheme', 'Rock collections', 'Taxonomy Online', 'Vocabularies', 'Data downloads', 'Scans and photos', and 'Web services'.
- Middle Screenshot (2002):** Shows the 'PalaeoSaurus online collections database' search form. It includes search criteria for 'Taxonomic group', 'Genus or subgenus', 'Species', 'Chronostratigraphy', 'Locality', 'Collector / donor', 'Publication (author)', 'Type of specimen', and 'Specimen registration no.'. A 'Reset Defaults' button is also present.
- Bottom Screenshot (2006):** Shows the 'Onshore borehole material database' search form. It includes search criteria for 'Bore name', '10M map sheet', '10K map sheet', 'Depth', and 'Greater than / Smaller than'. A 'search' button is visible.

2000

2002

2004

2006

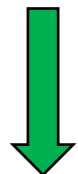
2008

2010

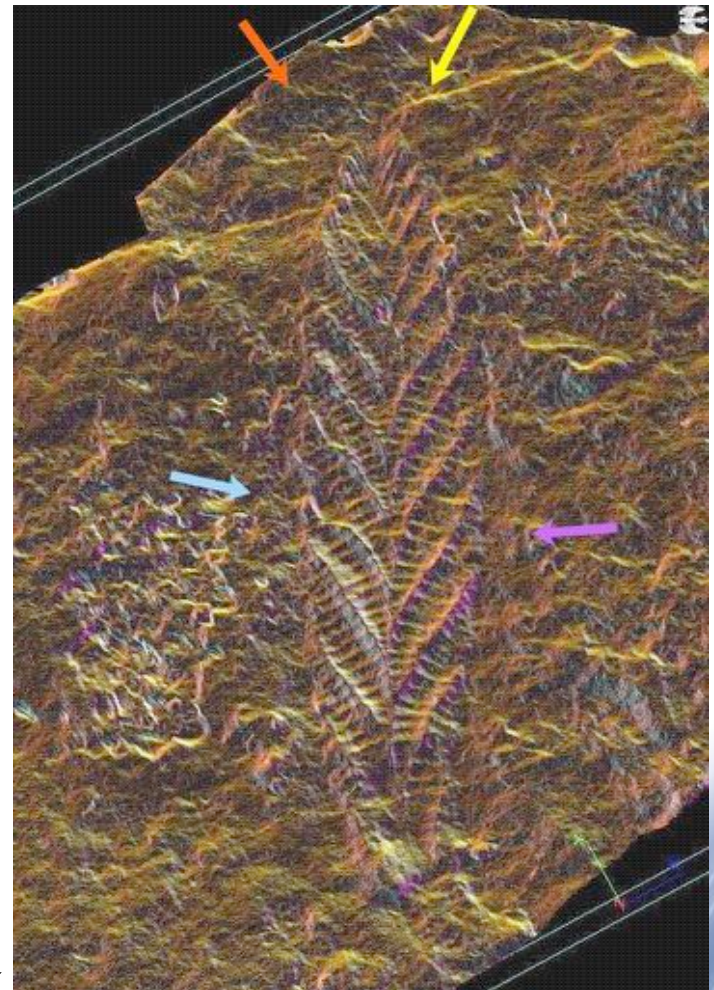
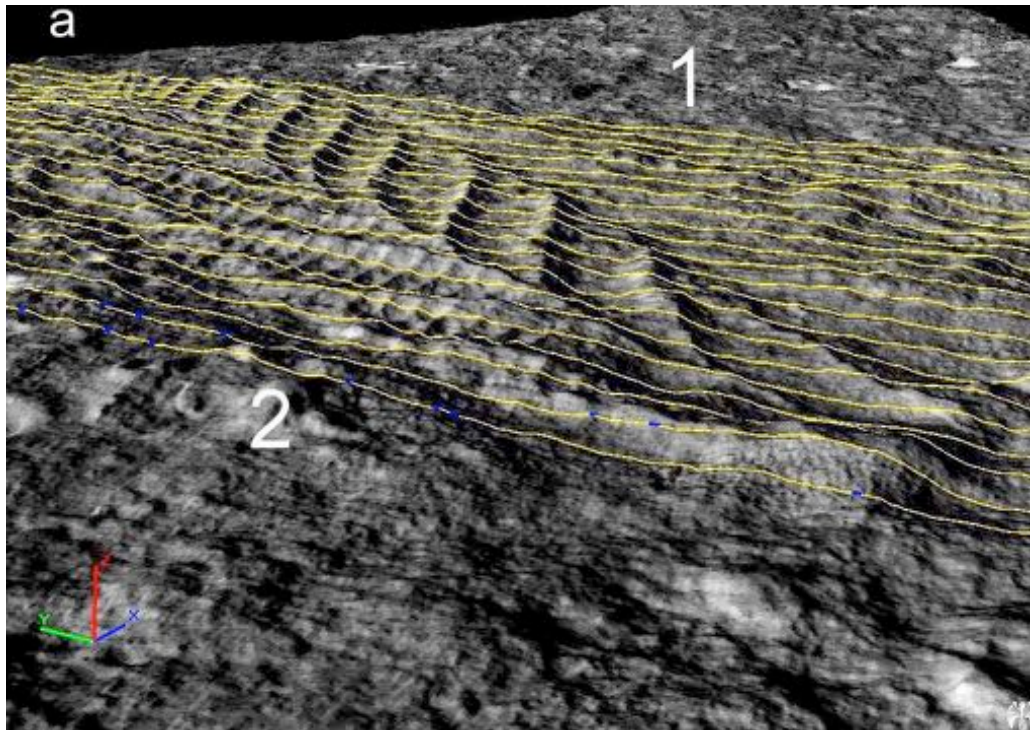
2012

2014

2006 – All the main collections databases online (rocks/minerals – fossils – boreholes)



British Geological Survey: Digitisation Timeline



2009 – “3D Access to Collections” bid to Arts & Humanities Research Council failed



2000

2002

2004

2006

2008

2010

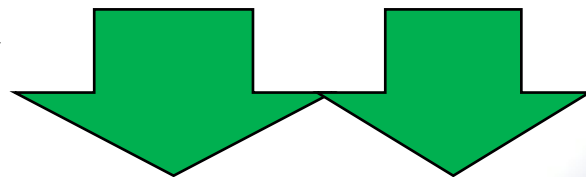
2012

2014

British Geological Survey: Digitisation Timeline



2010 – 2012 – HR photography
of 125,000 UKCS hydrocarbon
cores



2000

2002

2004

2006

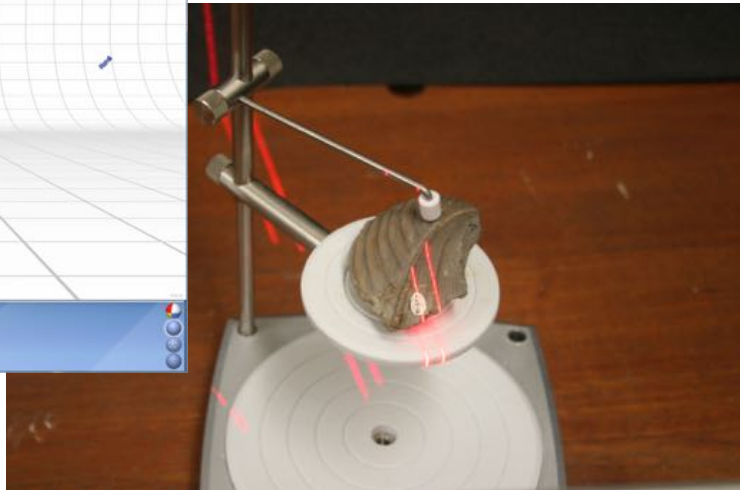
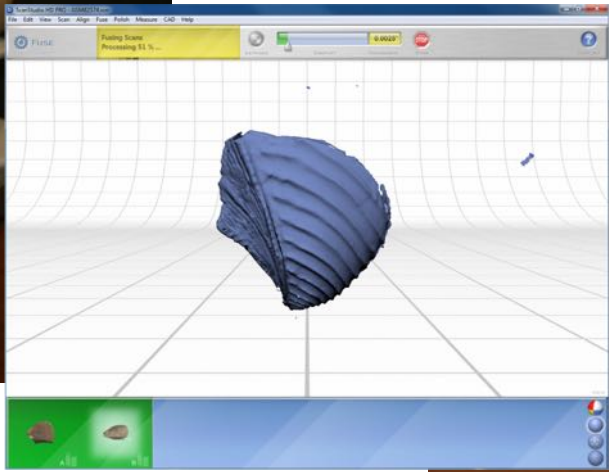
2008

2010

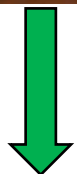
2012

2014

British Geological Survey: Digitisation Timeline



January 2011 – Purchased NextEngine HR Laser Scanner



2000

2002

2004

2006

2008

2010

2012

2014

British Geological Survey: Digitisation Timeline



JISC 2011 proposal GB3D.pdf - Adobe Reader

Cover Sheet for Bids (All sections must be completed)		JISC	
Name of Strand:	Strand A: <input type="checkbox"/>	Strand B: <input checked="" type="checkbox"/>	Strand C: <input type="checkbox"/>
Name of Lead Institution:		The British Geological Survey (BGS)	
Name of Proposed Project:		'GB/3D Fossil Types online': Database of type specimens of British fossil species	
Name(s) of Project Partners(s) (except commercial sector - see below)		National Museum Wales; The Sedgwick Museum, Cambridge; The University Museum of Natural History, Oxford; and the Geological Curators' Group, representing a number of regional museums.	
This project involves one or more commercial sector partners YES / NO (delete as appropriate)		Name(s) of any commercial partner company (ies)	
Full Contact Details for Primary Contact:			
Name: Michael Peter Alfred Howe			
Position: Chief Curator, BGS, and current Chair of the Geological Curators' Group.			
Email: mhowe@bgs.ac.uk Tel: 0115 9363105			
Address: British Geological Survey, Keyworth, NOTTINGHAM, NG12 5GG			
Length of Project:	1 year 9 months		
Project Start:	1 st November 2011	Project End:	31 st July 2013
Total Funding Requested from JISC:	£691,068		
Total Institutional Contributions:	£57,259		

August 2011 – Submitted JISC grant application



2000

2002

2004

2006

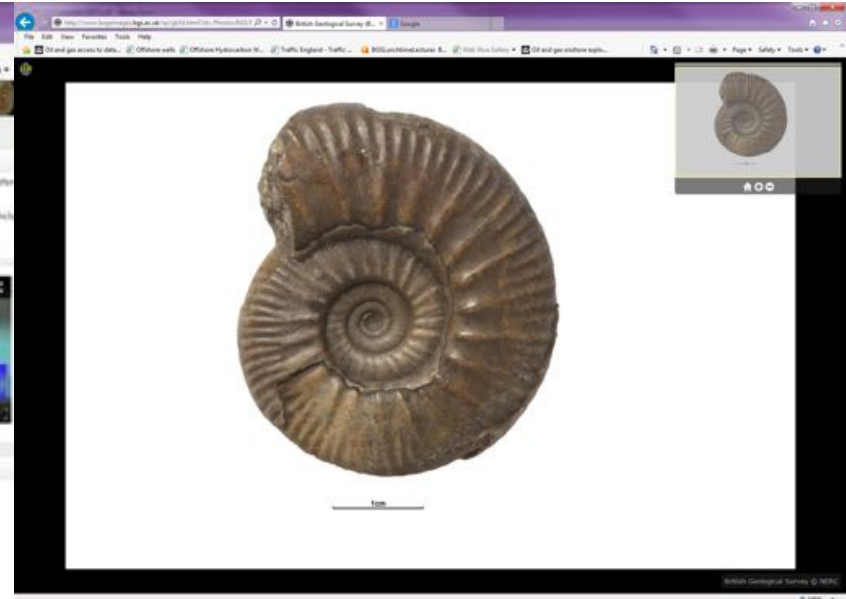
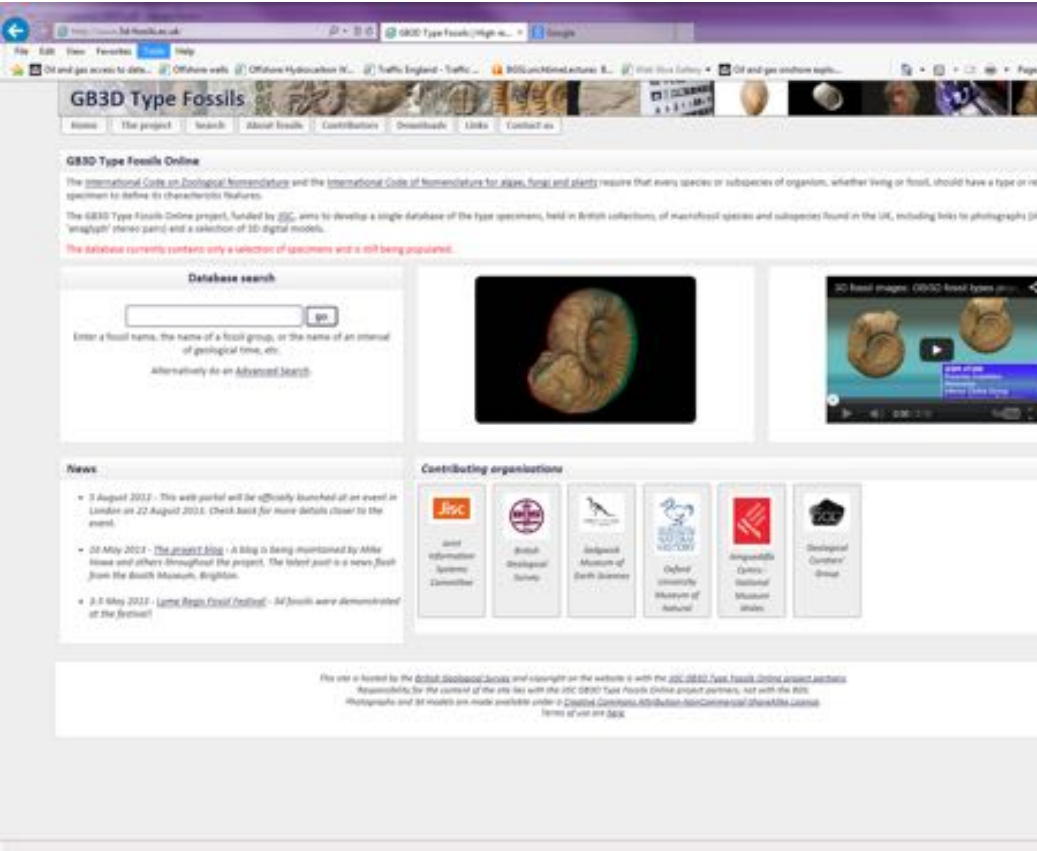
2008

2010

2012

2014

British Geological Survey: Digitisation Timeline



Website
www.3d-fossils.ac.uk

2011 – 2013 – Jisc GB/3D fossil types online project

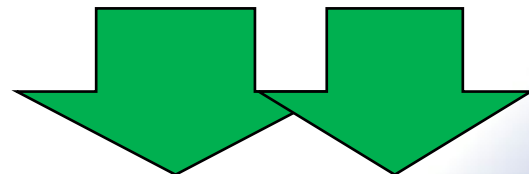
2000

2002

2004

2006

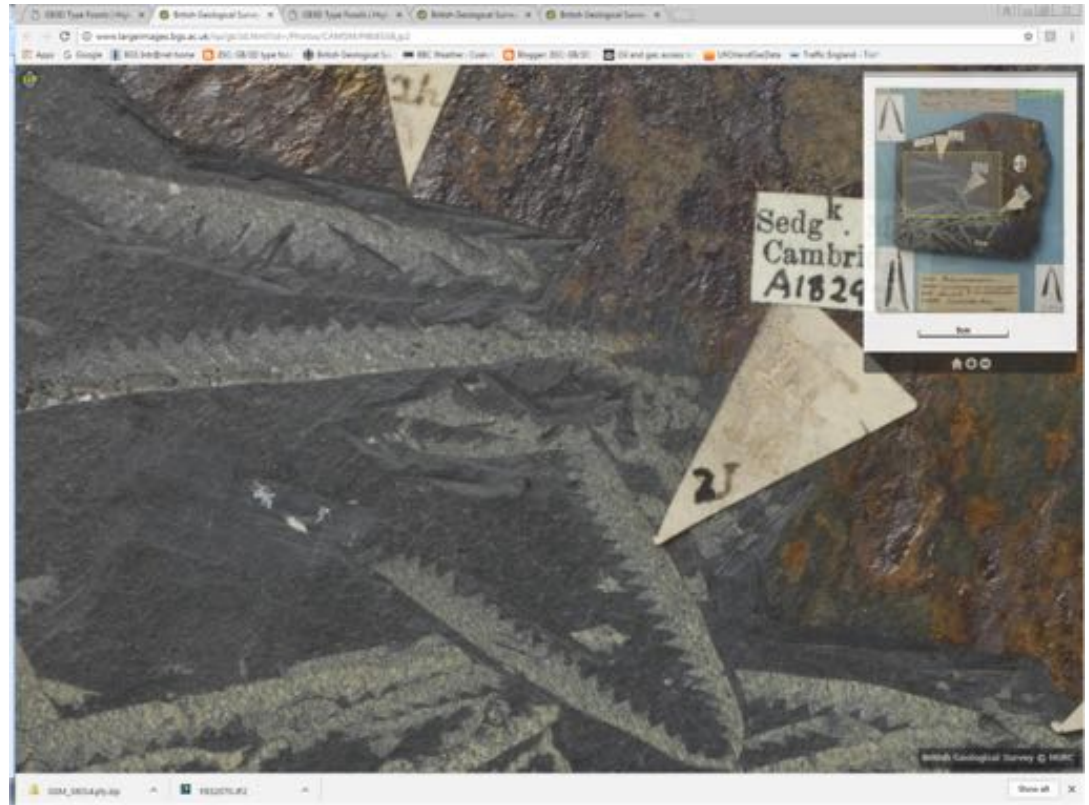
2008



2010

2012

2014



The Jisc funded GB3D fossil types online project

Jisc funded GB3D Fossil Types Online

17,500 types, each with HR images, anaglyphs & labels + 2000 3d digital models

Cameras: Canon EOS5D (22.3Mp). Images served as JPEG2000. Models available as Zipped .PLY and .OBJ

Partners: British Geological Survey; National Museum Wales; The Sedgwick Museum, Cambridge; The University Museum of Natural History, Oxford; and the Geological Curators' Group, representing a number of national, regional and university museums - (most of major British type repositories, except London Natural History Museum).

Web-based uploading and API undergoing beta testing

GB3D Type Fossils

Home The project Search About fossils Contributors Downloads Links Contact us

GB3D Type Fossils Online

The [International Code on Zoological Nomenclature](#) and the [International Code of Nomenclature for algae, fungi and plants](#) require that every species or subspecies of organism, whether living or fossil, should have a type or reference specimen to define its characteristic features.

The GB3D Type Fossils Online project, funded by [JISC](#), aims to develop a single database of the type specimens, held in British collections, of macrofossil species and subspecies found in the UK, including links to photographs (including 'anaglyph' stereo pairs) and a selection of 3D digital models.

The database currently contains only a selection of specimens and is still being populated.

Database search

Enter a fossil name, the name of a fossil group, or the name of an interval of geological time, etc.

Alternatively do an [Advanced Search](#).

News

- 22 September 2014 - New data added to the database takes the totals to over 28,000 images and 1800 3D-scans of more than 16,400 fossil specimens from 22 museums on this website
- 8 September 2014 - [DigitalSpecimen 2014](#) - GB3D Type Fossils was one of the digitisation projects showcased at the DigitalSpecimen 2014 conference held at Museum für Naturkunde Berlin.
- 20 March 2014 - [The project blog](#) - A blog is being maintained by Mike Howe and others throughout the project.



Contributing organisations



Joint Information
Systems
Committee



British Geological
Survey



Natural History
Museum
of Earth Sciences



Oxford University
Museum of
Natural History



Amgueddfa Cymru
National
Museum Wales



Geological
Curators' Group

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GB3D Type Fossils Online

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The GB3D Type Fossils Online project, funded by JISC, aims to develop a single database of the type specimens, held in British collections, of macrofossil species and subspecies found in the UK, including links to photographs (including 'anaglyph' stereo pairs) and a selection of 3D digital models.

The database currently contains only a selection of specimens and is still being populated.

Database search

Dactyl

- Enter **Dactyl**
- Corvidactylites
 - Dactylinoceras
 - Dactyligammites
 - Dactylifera
 - Kulindactylites
 - Leptodactylites
 - Lilindactylites
 - Nemodactylites
 - Parvidactylites
 - Paridactylites
 - Trochodactylites
- ... more matches are available
near typing to narrow the selection

News

- 22 Sep taken scans
- 18 Sep more
- 14 Sep Fossil at the Museum
- 20 March 2014 - [The project blog](#) - A blog is being maintained by Mike Howe and others throughout the project.



Contributing organisations



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Database search

Check back regularly as new specimens, photographs and 3D models are being added all the time.

Basic search

Free text

Free text

Search

Advanced search

Taxonomic

Group

(not all groups are represented in the database)

Genus

Species

include all identifiers in search

Type Status

Geological

Age

Rock Unit

Locality

Country

Institution

Registration

No.

2D Photos

high resolution 2D photos available?

Stereo Photos

stereo photos available?

3D Scans

3D scans available?

Search

Viewing results 1 - 9 of 9

Dactyloceras crassibundum (Simpson)



Holotype: GSM26407

Locality: Whitby - N Yorks.

Rock Unit: Lias Group

Geological Age: [Aalenian Age \(Jurassic Period\)](#) - [Bathonian Age \(Triassic Period\)](#) (171.6 - 209.6 Ma B.P.)

Resources:



[View full details](#)

Dactyloceras anguiforme (Buckman SS)



Holotype: GSM38034

Locality: Barrington - Somerset.

Rock Unit: Lias Group

Geological Age: [Aalenian Age \(Jurassic Period\)](#) - [Bathonian Age \(Triassic Period\)](#) (171.6 - 209.6 Ma B.P.)

Resources:



[View full details](#)

Dactyloceras (Simplidactylites) simplicirostris (Buckman SS)



Holotype: GSM38303

Locality: Barrington - Somerset.

Rock Unit: Lias Group

Geological Age: [Aalenian Age \(Jurassic Period\)](#) - [Bathonian Age \(Triassic Period\)](#) (171.6 - 209.6 Ma B.P.)

Resources:



[View full details](#)

Dactyloceras (Simplidactylites) simplicirostris (Buckman SS)

GB3D Type Fossils

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Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group	Kingdom Animalia Phylum Mollusca Class Cephalopoda Order Ammonoidea
Fossil Name	Doctyloceras anguiforme (Buckman 55)
Type Status	Holotype
Name History	Doctyloceras anguiforme (Buckman 55)

Provenance

Registration No.	GSM38014
Collector	British Geological Survey 1921
Donor or Associated Person	Name not available
Held By	British Geological Survey
Comments	Upper Lias (Lerparentinum zone, fabifer subzone).

Location

Country	England
Locality	Barrington - Somerset.
Grid Reference	Not available

Stratigraphy

Rock Unit	Lias Group
Biotope	Not available
Geological Age	Aalenian Age (Jurassic Period) – Rhartian Age (Triassic Period) (171.6 – 203.6 Ma B.P.)

References

References	
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Available Images

High resolution photographs



Stereoscopic photographs



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3D Scans

3D Scans	
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GB3D Type Fossils

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Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group	Kingdom Animalia Phylum Mollusca Class Cephalopoda Order Ammonoitida
Fossil Name	Doctyloceras anguiforme (Buckman 55)
Type Status	Holotype
Name History	Doctyloceras anguiforme (Buckman 55)

Provenance

Registration No.	GSM38014
Collector	British Geological Survey 1921
Donor or Associated Person	Name not available
Held By	 British Geological Survey
Comments	Upper Lias (serpentinum zone, falculifer subzone).

Location

Country	England
Locality	Barrington - Somerset.
Grid Reference	Not available

Stratigraphy

Rock Unit	Lias Group
Biostone	Not available
Geological Age	Aalenian Age (Jurassic Period) – Rhartian Age (Triassic Period) (171.6 – 203.6 Ma B.P.)

References

References [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#) [17](#) [18](#) [19](#) [20](#) [21](#) [22](#) [23](#) [24](#) [25](#) [26](#) [27](#) [28](#) [29](#) [30](#) [31](#) [32](#) [33](#) [34](#) [35](#) [36](#) [37](#) [38](#) [39](#) [40](#) [41](#) [42](#) [43](#) [44](#) [45](#) [46](#) [47](#) [48](#) [49](#) [50](#) [51](#) [52](#) [53](#) [54](#) [55](#) [56](#) [57](#) [58](#) [59](#) [60](#) [61](#) [62](#) [63](#) [64](#) [65](#) [66](#) [67](#) [68](#) [69](#) [70](#) [71](#) [72](#) [73](#) [74](#) [75](#) [76](#) [77](#) [78](#) [79](#) [80](#) [81](#) [82](#) [83](#) [84](#) [85](#) [86](#) [87](#) [88](#) [89](#) [90](#) [91](#) [92](#) [93](#) [94](#) [95](#) [96](#) [97](#) [98](#) [99](#) [100](#)

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3D Scans

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GB3D Type Fossils

Home The project Search About fossils Contributors Downloads Links Contact us

Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group	Kingdom Animalia Phylum Mollusca Class Cephalopoda Order Ammonoitida
Fossil Name	Doctyloceras anguiforme (Buckman 55)
Type Status	Holotype
Name History	Doctyloceras anguiforme (Buckman 55)

Provenance

Registration No.	GSM38014
Collector	British Geological Survey 1921
Donor or Associated Person	Name not available
Held By	British Geological Survey
Comments	Upper Lias (Lerpentium zone, fabifer subzone).

Location

Country	England
Locality	Barrington - Somerset.
Grid Reference	Not available

Stratigraphy

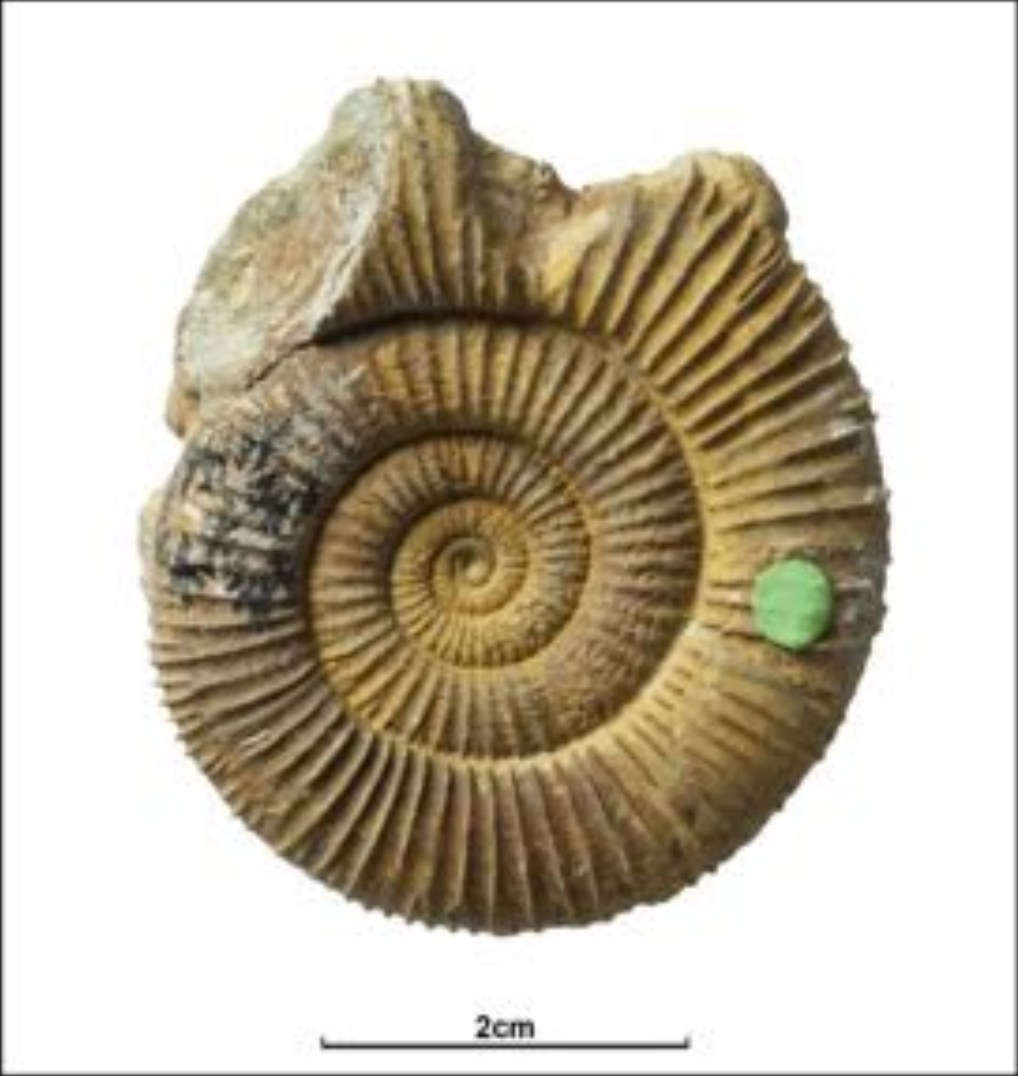
Rock Unit	Lias Group
Biotope	Not available
Geological Age	Asenian Age (Jurassic Period) – Rhartian Age (Triassic Period) (171.6 – 203.6 Ma B.P.)

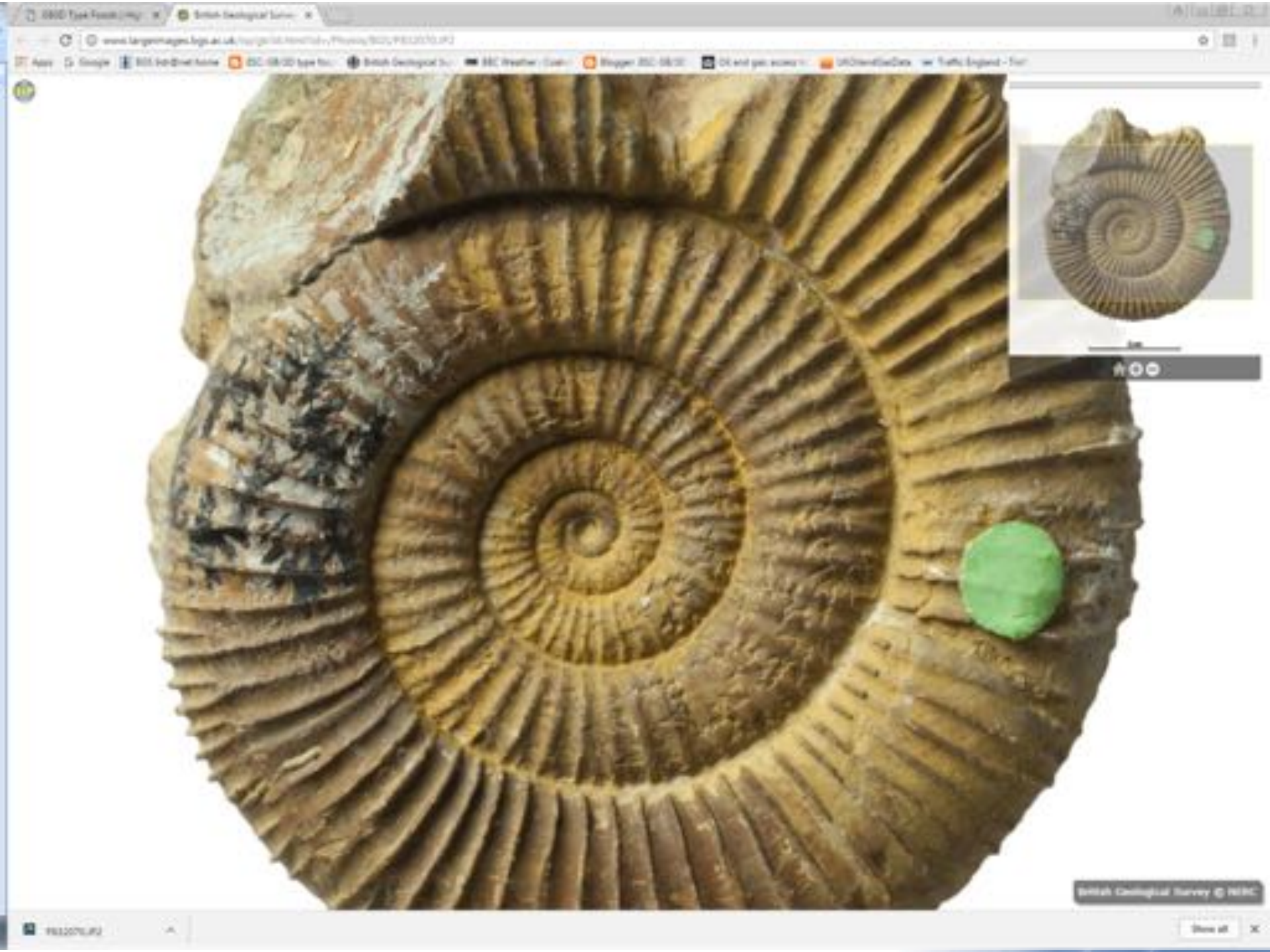
Available Images

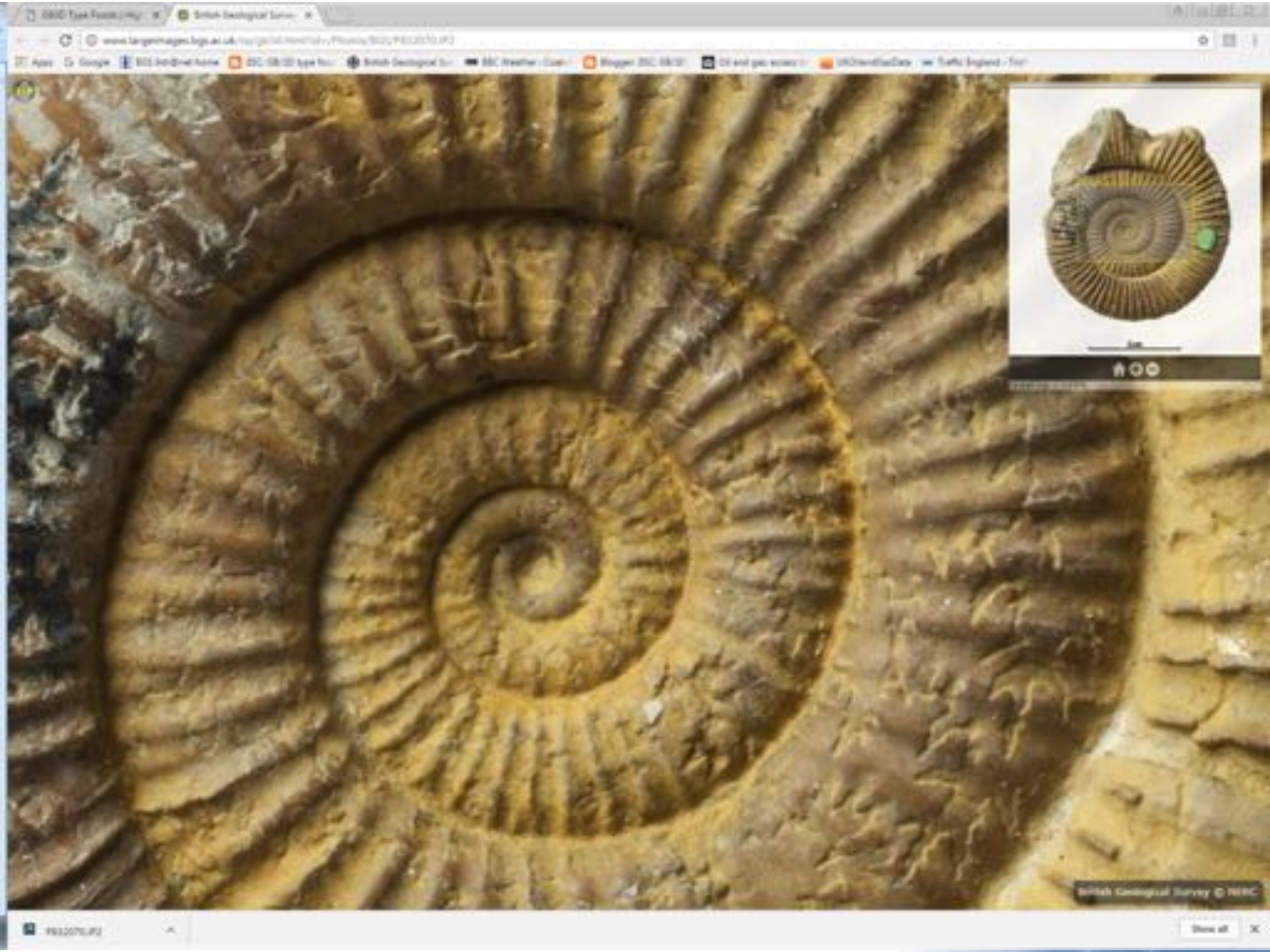


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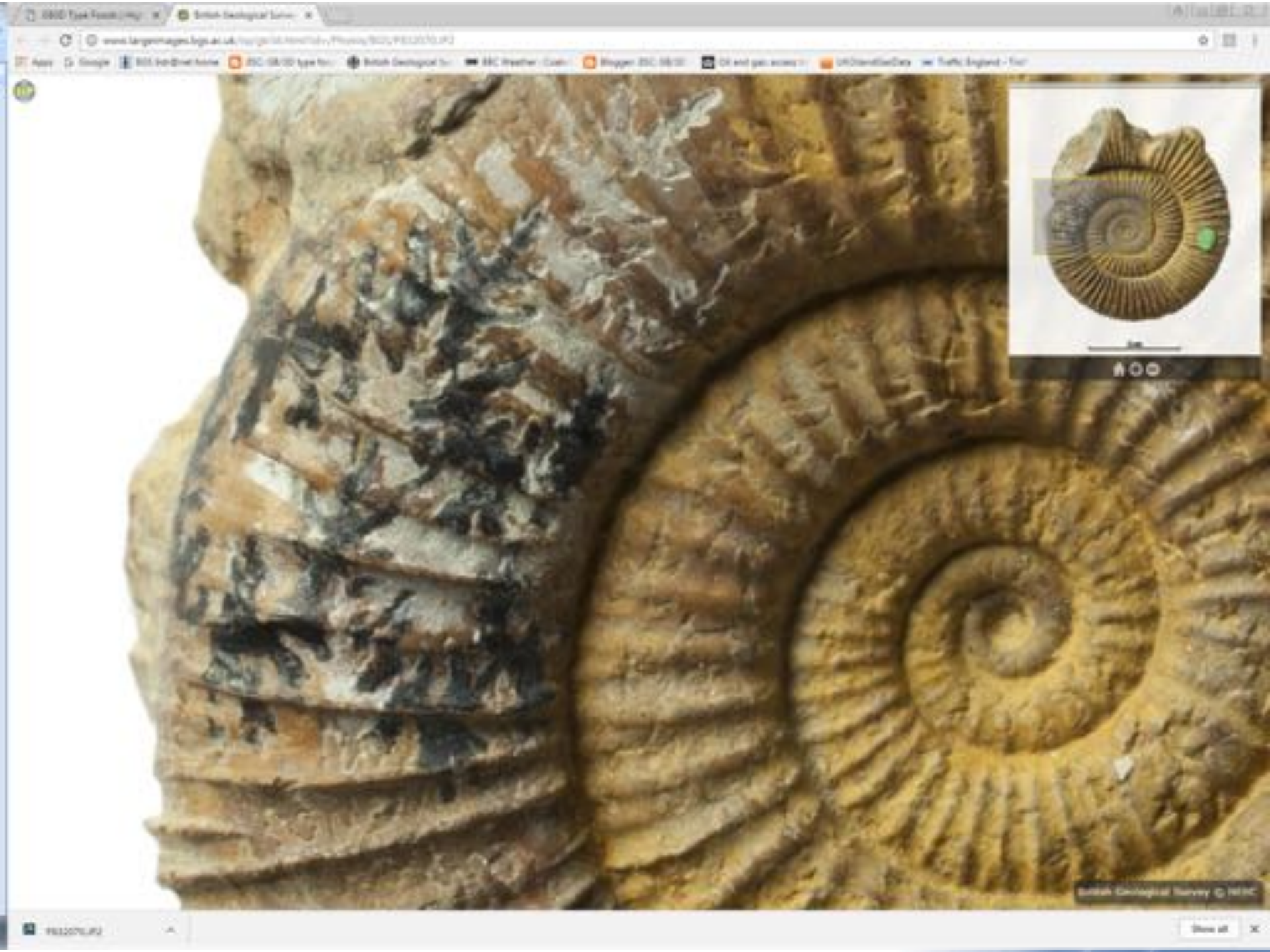
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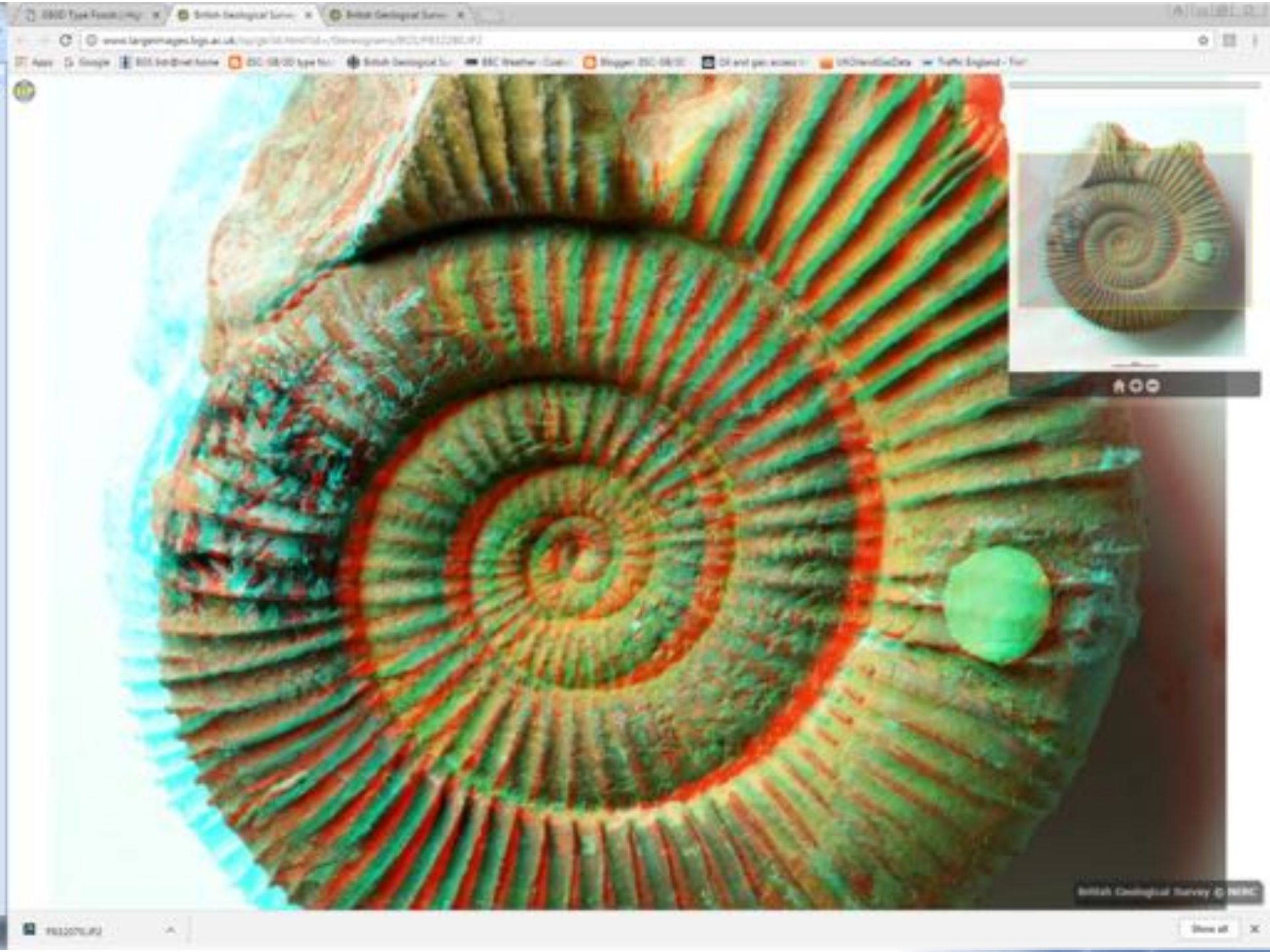


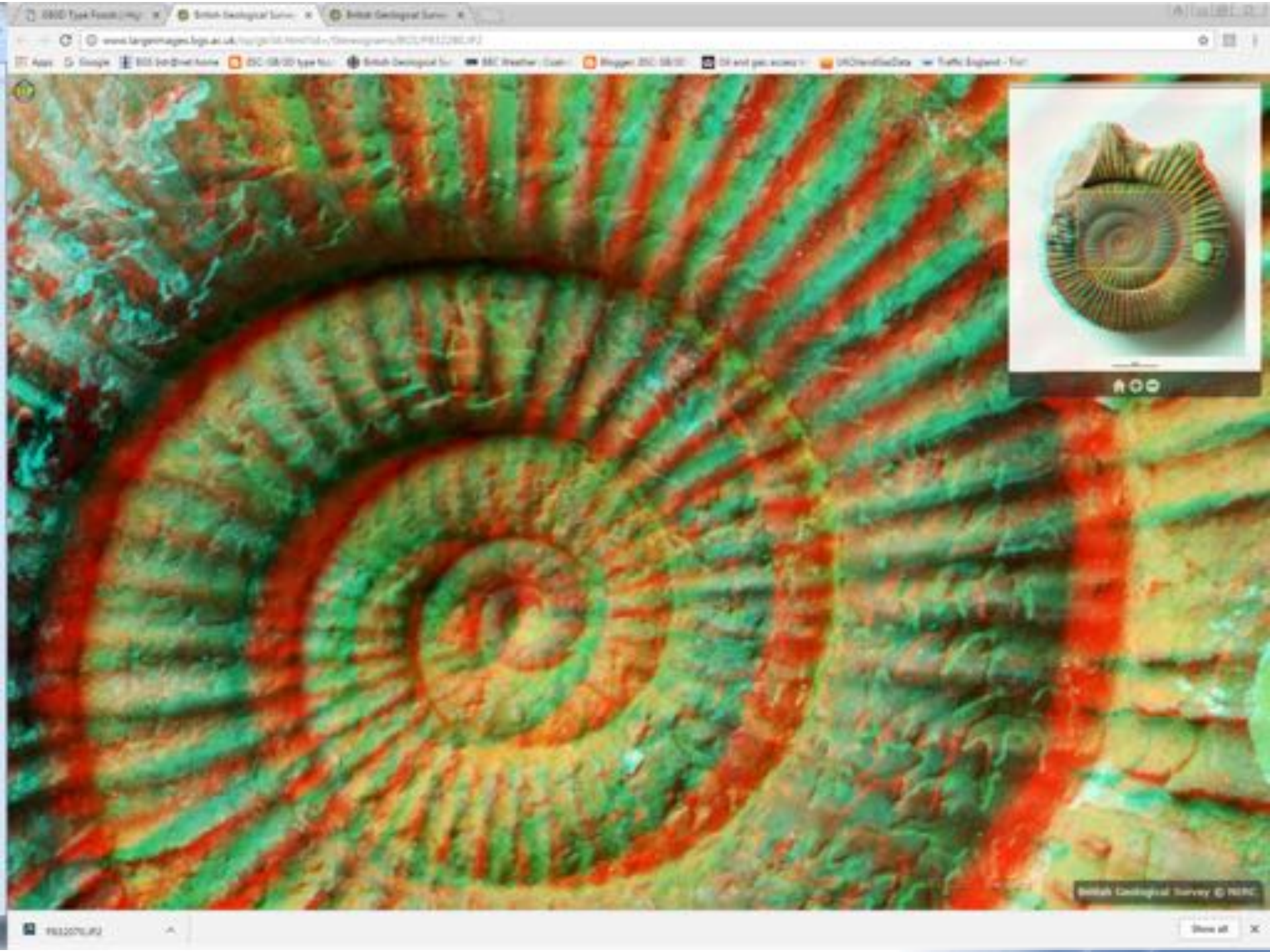


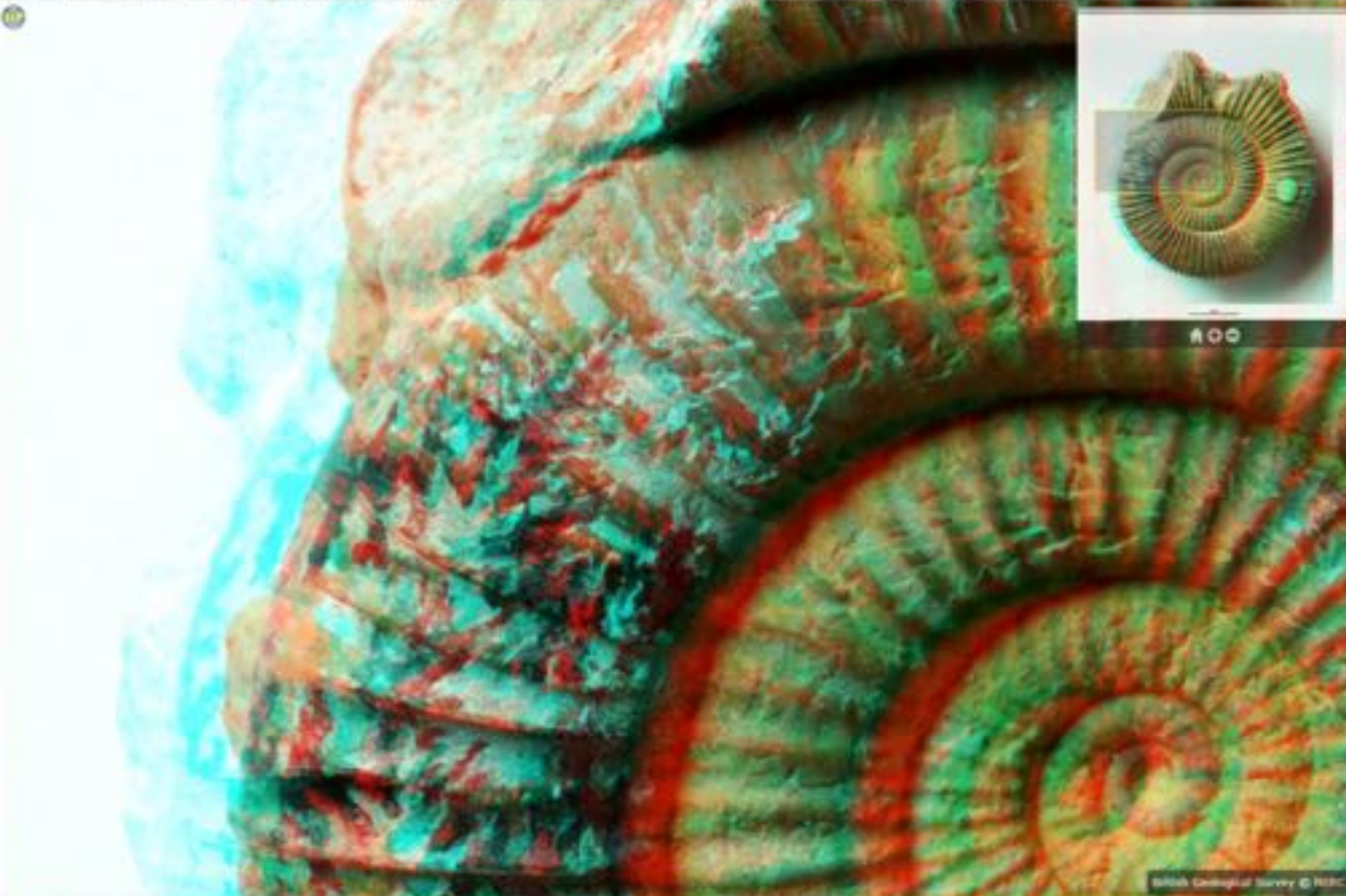
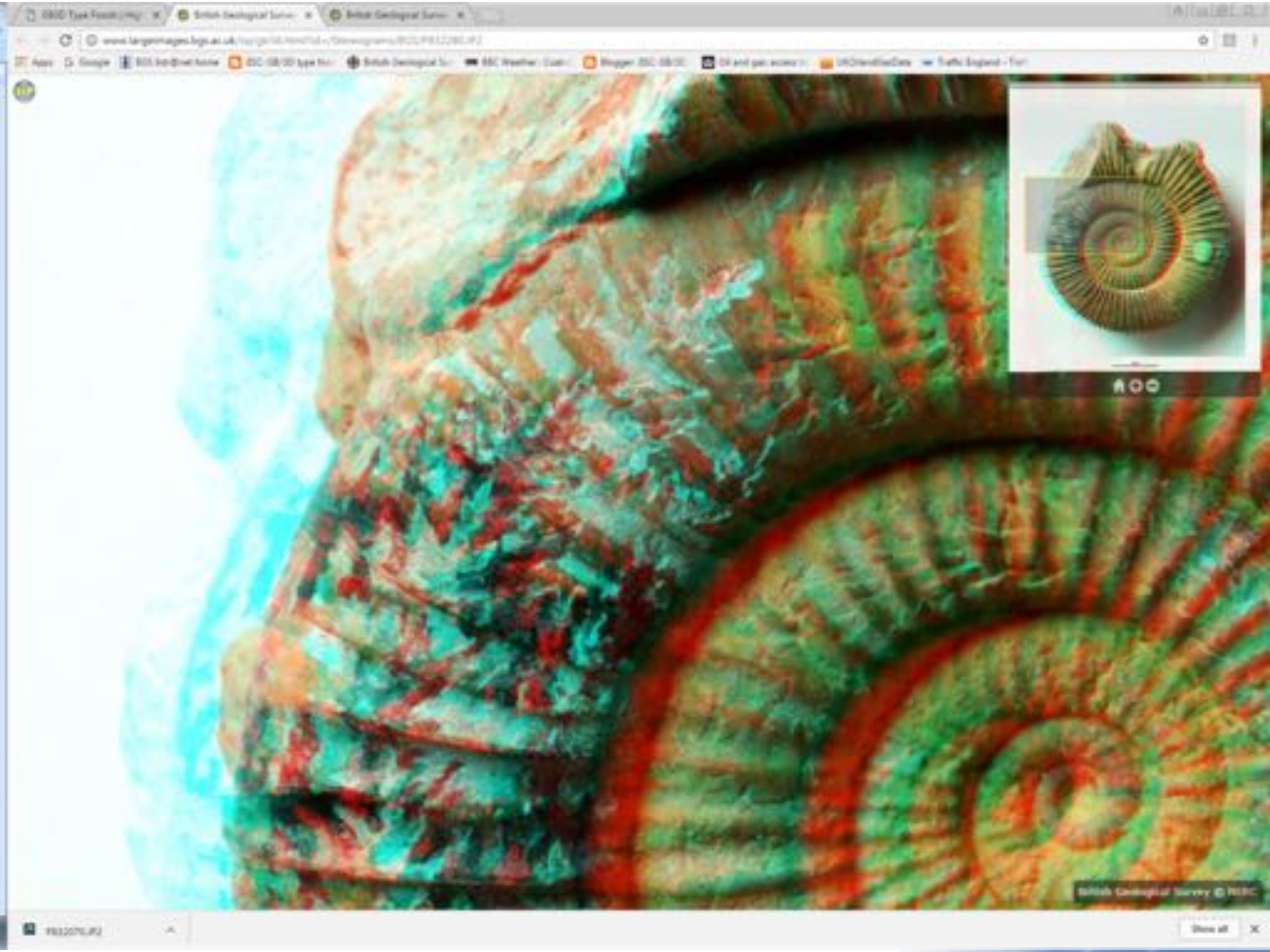
British Geological Survey © NERC











Provenance

Registration No. GSM38014

Collector British Geological Survey 1921

Donor or Associated Person Name not available

Held By  British Geological Survey

Comments Upper Lias (serpentinum zone, falckii subzone).

Location

Country England

Locality Barrington - Somerset.

Grid Reference Not available

Stratigraphy

Rock Unit Lias Group

Biozone Not available

Geological Age Aalenian Age (Jurassic Period) - Rhaetian Age (Triassic Period)
(171.8 - 203.6 Ma B.P.)

References

References Buckman SL 1929 Type Ammonites Vol VI Plate CCLXXX

/BGS/PE12076.JPG
2002 KB

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Stereoscopic photographs



/BGS/PE12200.JPG
2010 KB

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3D Scans

1: /BGS/GSM_38014

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[Download as zipped PLY file format](#) (ZIP 1440 KB)

[View 3D file in browser](#)

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Provenance

Registration No. GSM38014

Collector British Geological Survey 1921

Donor or Associated Person Name not available

Held By  British Geological Survey

Comments Upper Lias (serpentinum zone, falclifer subzone).

Location

Country England

Locality Barrington - Somerset.

Grid Reference Not available

Stratigraphy

Rock Unit Lias Group

Biozone Not available

Geological Age Aalenian Age (Jurassic Period) - Rhartian Age (Triassic Period)
(171.8 - 203.6 Ma B.P.)

References

References Buckman SS 1929 Type Ammonites Vol VI Plate CCLXXX

/BGS/P812076.JPG
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Stereoscopic photographs



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GB3D Type Fossils

Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group
Kingdom Animalia
Phylum Mollusca
Class Cephalopoda
Order Ammonitida

Fossil Name *Doctyloceras onguiforme* (Buckman 55)

Type Status Holotype

Name History *Doctyloceras onguiforme* (Buckman 55)

Provenance

Registration No. GSM38014

Collector British Geological Survey 1921

Donor or Associated Person Name not available

Held By  British Geological Survey

Comments Upper Lias (Serpentinum zone, fakifer subzone).

Location

Country England

Locality Barrington - Somerset.

Grid Reference Not available

Stratigraphy

Rock Unit Lias Group

Biotope Not available

Geological Age Asturian Age (Jurassic Period) – Rhätian Age (Triassic Period)
(171.6 – 203.6 Ma B.P.)

References

Scan Viewer

77120 views
128845 scans



Rotate Zoom

Point cloud Change

- Download zipped .ply file [1480 Kb]
- Download zipped .obj file [9544 Kb]

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GB3D Type Fossils

Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group	Kingdom Animalia
	Phylum Mollusca
	Class Cephalopoda
	Order Ammonitida
Fossil Name	<i>Doctyliceras onguiforme</i> (Buckman 55)
Type Status	Holotype
Name History	<i>Doctyliceras onguiforme</i> (Buckman 55)

Provenance

Registration No.	GSM38014
Collector	British Geological Survey 1921
Donor or Associated Person	Name not available
Held By	 British Geological Survey
Comments	Upper Lias (Serpentinum zone, fakifer subzone).

Location

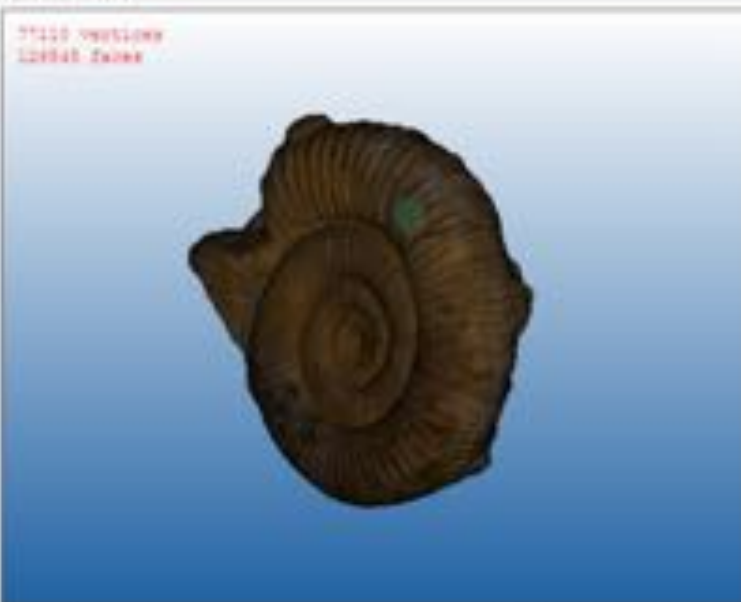
Country	England
Locality	Barrington - Somerset.
Grid Reference	Not available

Stratigraphy

Rock Unit	Lias Group
Biozone	Not available
Geological Age	Aalenian Age (Jurassic Period) – Rhätian Age (Triassic Period) (171.6 – 203.6 Ma B.P.)

References

Scan Viewer



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GB3D Type Fossils

Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group	Kingdom Animalia
	Phylum Mollusca
	Class Cephalopoda
	Order Ammonitida
Fossil Name	<i>Doctyliceras onguiforme</i> (Buckman 55)
Type Status	Holotype
Name History	<i>Doctyliceras onguiforme</i> (Buckman 55)

Provenance

Registration No.	GSM38014
Collector	British Geological Survey 1921
Donor or Associated Person	Name not available
Held By	 British Geological Survey
Comments	Upper Lias (Serpentinum zone, falcifer subzone).

Location

Country	England
Locality	Barrington - Somerset.
Grid Reference	Not available

Stratigraphy

Rock Unit	Lias Group
Biotope	Not available
Geological Age	Asterian Age (Jurassic Period) – Rhætan Age (Triassic Period) (171.6 – 203.6 Ma B.P.)

References

Scan Viewer



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GB3D Type Fossils

Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group
Kingdom Animalia
Phylum Mollusca
Class Cephalopoda
Order Ammonitida

Fossil Name *Doctyloceras onguiforme* (Buckman 55)

Type Status Holotype

Name History *Doctyloceras onguiforme* (Buckman 55)

Provenance

Registration No. GSM38014

Collector British Geological Survey 1921

Donor or Associated Person Name not available

Held By  British Geological Survey

Comments Upper Lias (Serpentinum zone, fakifer subzone).

Location

Country England

Locality Barrington - Somerset.

Grid Reference Not available

Stratigraphy

Rock Unit Lias Group

Biotope Not available

Geological Age Astenian Age (Jurassic Period) – Rhettian Age (Triassic Period)
(171.6 – 203.6 Ma B.P.)

References

Scan Viewer



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GB3D Type Fossils

Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group	Kingdom Animalia
	Phylum Mollusca
	Class Cephalopoda
	Order Ammonitida
Fossil Name	Doctyloceras onguiforme (Buckman 55)
Type Status	Holotype
Name History	Doctyloceras onguiforme (Buckman 55)

Provenance

Registration No.	GSM38014
Collector	British Geological Survey 1921
Donor or Associated Person	Name not available
Held By	 British Geological Survey
Comments	Upper Lias (Serpentinum zone, fakifer subzone).

Location

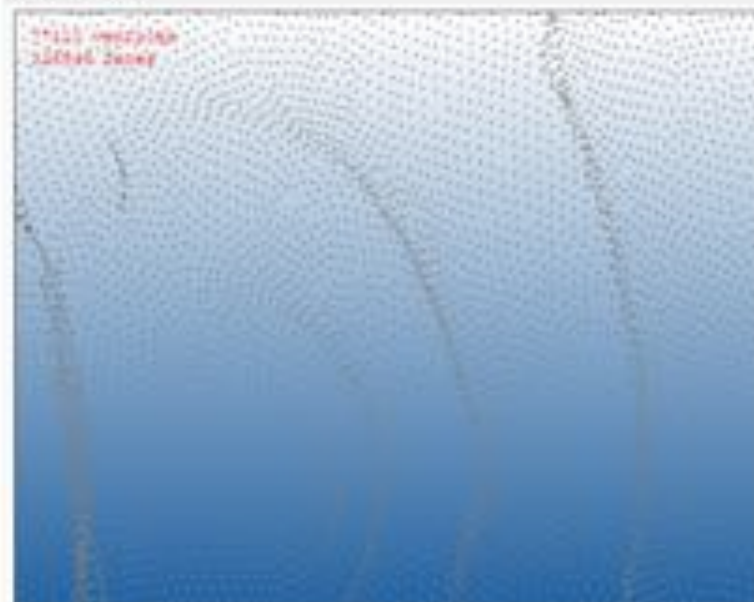
Country	England
Locality	Barrington - Somerset.
Grid Reference	Not available

Stratigraphy

Rock Unit	Lias Group
Biozone	Not available
Geological Age	Asenian Age (Jurassic Period) – Rhettian Age (Triassic Period) (171.6 – 203.6 Ma B.P.)

References

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GB3D Type Fossils

Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group
Kingdom Animalia
Phylum Mollusca
Class Cephalopoda
Order Ammonitida

Fossil Name *Doctyloceras onguiforme* (Buckman 55)

Type Status Holotype

Name History *Doctyloceras onguiforme* (Buckman 55)

Provenance

Registration No. GSM38014

Collector British Geological Survey 1921

Donor or Associated Person Name not available

Held By  British Geological Survey

Comments Upper Lias (Serpentinum zone, fakifer subzone).

Location

Country England

Locality Barrington - Somerset.

Grid Reference Not available

Stratigraphy

Rock Unit Lias Group

Biotope Not available

Geological Age Asturian Age (Jurassic Period) – Rhettian Age (Triassic Period)
(171.6 – 203.6 Ma B.P.)

References

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GB3D Type Fossils

Fossil specimen : BGS GSM38014 – Holotype

Taxonomy

Taxonomic Group	Kingdom Animalia
	Phylum Mollusca
	Class Cephalopoda
	Order Ammonitida
Fossil Name	<i>Doctyloceras onguiforme</i> (Buckman 55)
Type Status	Holotype
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Locality	Barrington - Somerset.
Grid Reference	Not available

Stratigraphy

Rock Unit	Lias Group
Biotope	Not available
Geological Age	Aalenian Age (Jurassic Period) – Rhätian Age (Triassic Period) (171.6 – 203.6 Ma B.P.)

References

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GB3D Type Fossils

Home The project Search About fossils Contributors Downloads Links Contact us

Public Zone

- Ammonites
- Belemnites
- Bivalves
- Brachiopods
- Corals
- Crinoids
- Echinoids
- Fish
- Foraminifera
- Ostracods
- Plants
- Trilobites

Public Zone

These pages describe the major fossil groups that are commonly found.

Fossils are the preserved remains of plants and animals whose bodies were buried in sediment under ancient seas, lakes and rivers.

Although the soft parts of the body usually decayed after death, the hard parts — teeth, shells and bones — were preserved as the sediment hardened to rock.

In exceptional cases, soft parts like feathers or skin, or other evidence of life, such as footprints or dung may also be preserved.

Fossils give us a useful insight into the history of life on Earth — they provide a record of how creatures evolved, how continents now widely separated were once connected, and how environments have changed across the face of the globe through geological time.

Browse fossils:



Ammonite



Belemnite



Bivalve



Brachiopod



Coral



Crinoid



Echinoid



Fish



Foraminifera



Ostracod



Plant



Trilobite

3D laser scanning | BGS Palaeontologic...

The British Geological Survey's palaeontological collections house an estimated three million specimens, representing most phyla with a fossil record, and all geological periods from Neoproterozoic to Recent.

The British Geological Survey's fossil collections house an estimated three million specimens, representing most groups of organisms (phyla) with a fossil record, and all geological periods from Neoproterozoic to Recent. This short movie shows photos and 3D reconstructions of some of our fossils, including the UK's oldest animal, as well as reconstructions of how they looked in life.

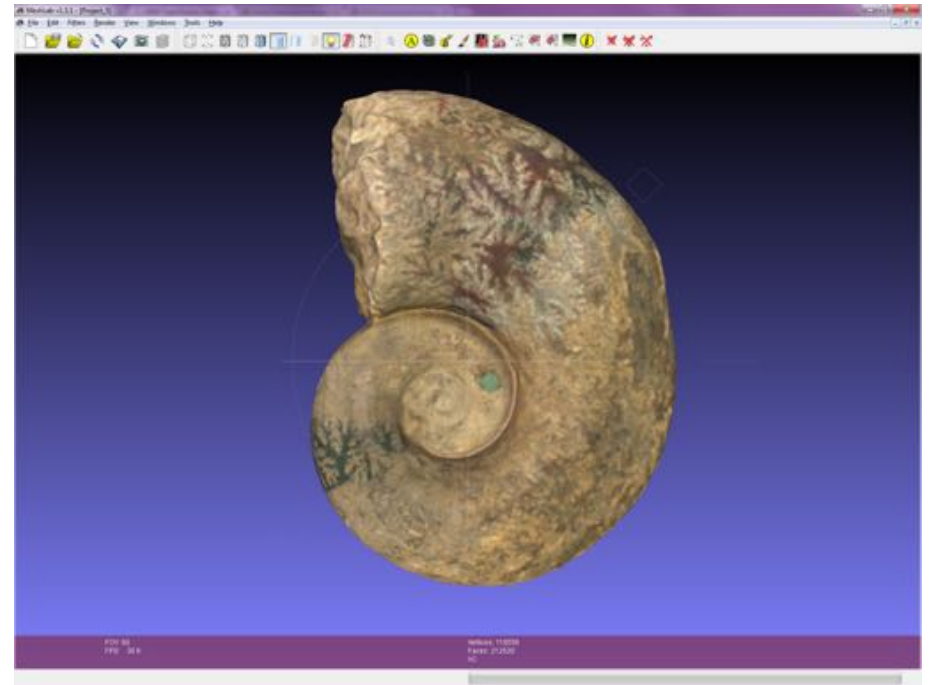
Best viewed in FULL SCREEN mode.

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Press Launch to the Public – BGS London Office August 2013





GB3D fossil types online project - impact

Visitors

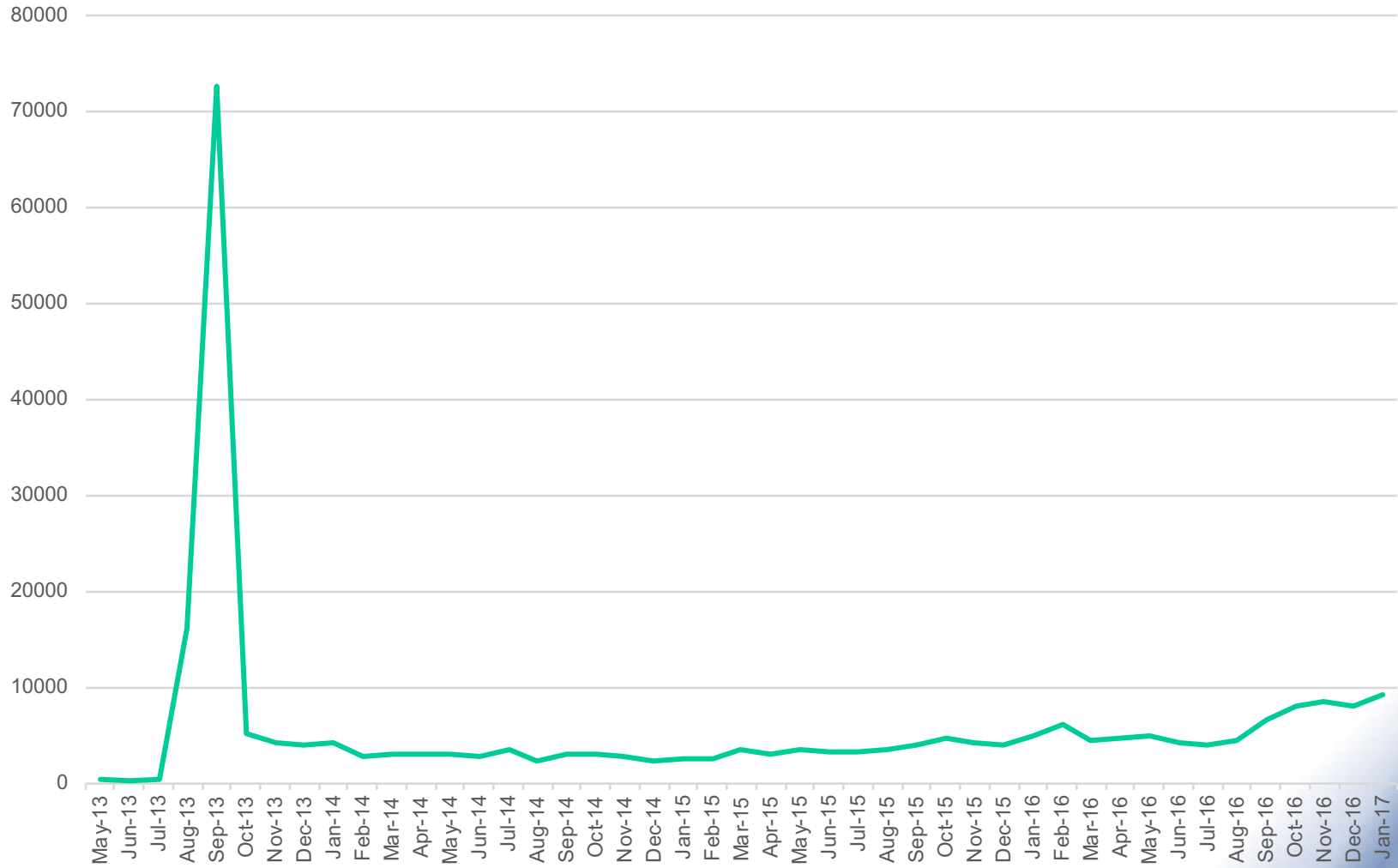
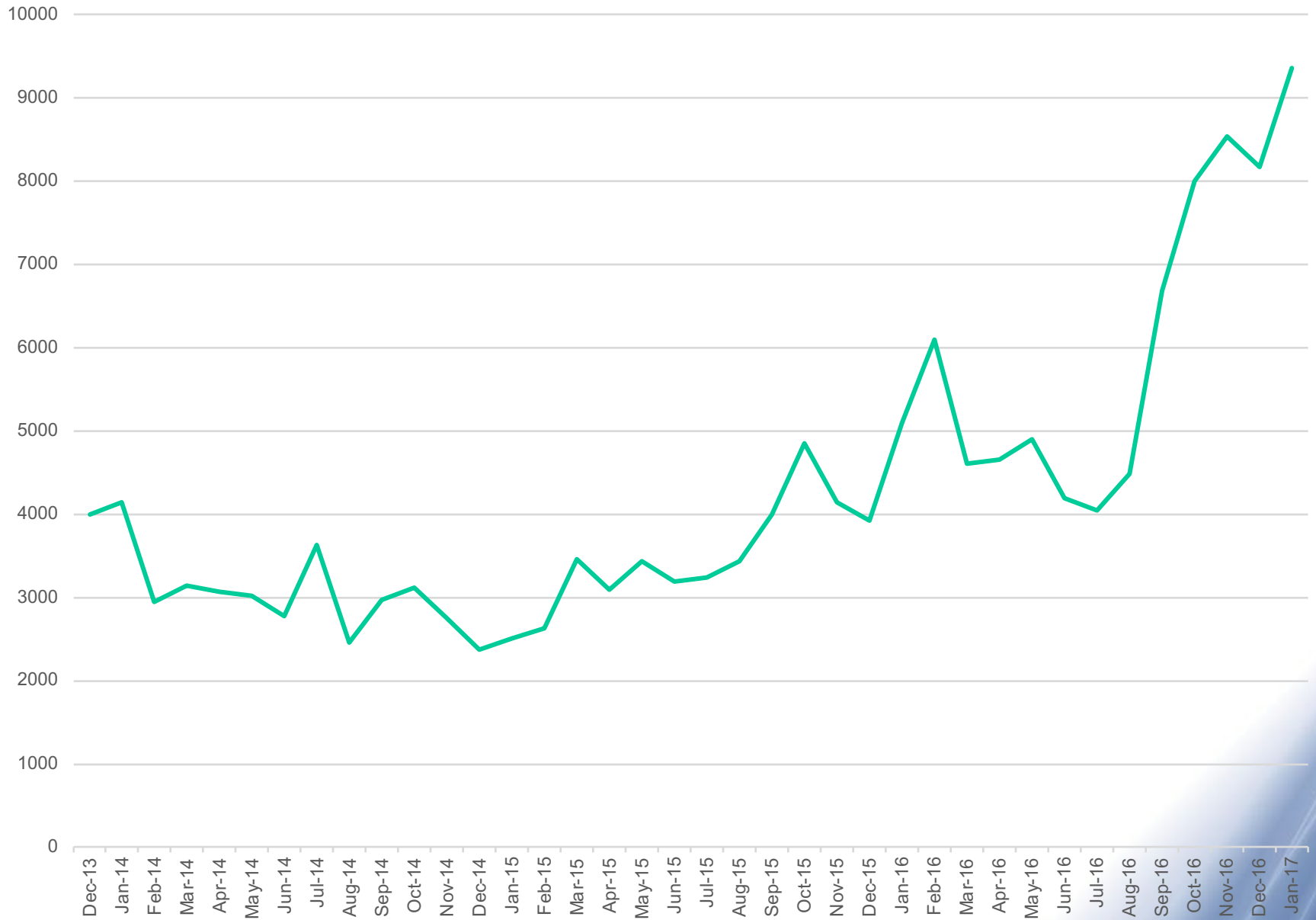


Chart Title



JISC: GB/3D type fossils online

11:00a, 8 January 2015

Help us to Help You



View more info for *Dalmanites* from the *Journal of Paleontology*.

The GB/3D team are busy exploring various ways of financing the next stage of the project – the inclusion of fossil and plant specimens, and the British Geological Survey 'Type & Stratigraphic Fossil Collection' – a collection of a quarter of a million microfossils that includes most of the microfossil and plant species and subspecies found in the UK, plus a good selection of vertebrates. To build the case for funding, we need to document the impact that the project is already having, and to do this, we need your help.



Blog Archive

- 2015 (1)
 - January (1)
 - [Help us to Help You](#)
- 2014 (3)
- 2013 (2)
- 2012 (14)

Blog News

[Geology AR, data standard becomes official](#)

[Vehicle maintenance 21-25 March 2015](#)

[Data farming provides new insights on soil fertility](#)

[Hidden groundwater resource under pressure in southern England](#)

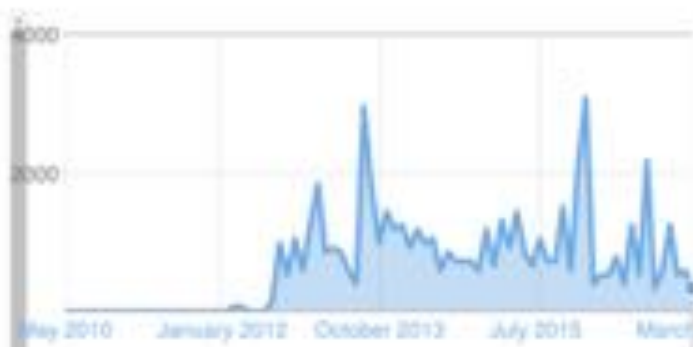
[BGS Cardiff office change of address and telephone number](#)

JISC: GB/3D type foss..

View blog

- Posts
- Stats**
 - Overview
 - Posts
 - Traffic sources
 - Audience
- Comments
- Earnings
- Campaigns
- Pages
- Layout
- Theme
- Settings
- Reading List
- Main

May 2010 - March 2017 Now Day Week Month All time



Pageviews today	5
Pageviews yesterday	7
Pageviews last month	388
Pageviews all time history	54,899
March 2017 Pageviews:	271

Manage the tracking of your own pageviews

Posts

Entry	Pageviews
Guest Blog - Comparing some 3D p... 17 Sep 2013, 11 comments	1436
Reconstructing a 3D surface from st... 4 Feb 2013, 1 comment	1204
Museums Sheffield 31 Oct 2012, 1 comment	1178
Dust off your fossil types... the JIS... 18 Sep 2012, 1 comment	814
These fossils are NOT real! 4 Feb 2013	740

Traffic Sources

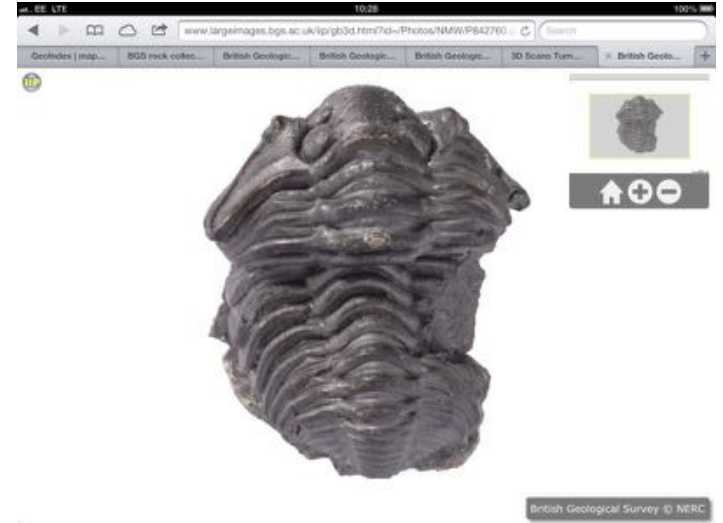
Entry	Pageviews
http://gb3dtypefossils.blogspot.com/	639
http://www.google.com/search	316
https://www.google.com/	274

Audience

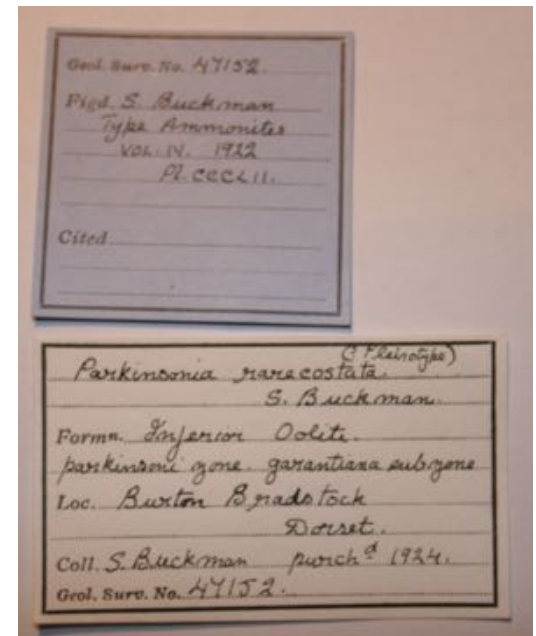


Send feedback





GB3D fossil types online project – future developments



- Logon with enhanced facilities including label images

Artec Spider™ and Space Spider™

Specifications

How it works



Artec Spider

A go-to-tool for CAD users and inventors of any kind, Artec Spider effectively captures the most intricate details of small objects with amazing accuracy, offering almost unlimited possibilities in reverse engineering, quality control, product design and manufacturing, and a great deal of other spheres.

€15,700

Software is not included in the price and can be purchased together with the scanner or separately [here](#)

Read our comprehensive [guide](#) to learn what computers will best suit with Artec scanning systems

Artec Space Spider

Drawing on the best features of Artec Spider, this upgraded handheld 3D scanner is one step ahead of the competition – originally developed to work in space, it features an enhanced cooling system, which enables it to reach optimal operating temperatures and achieve maximum accuracy much faster. Like Artec Spider, Artec Space Spider scans small objects quickly, in high resolution and brilliant color.

€20,700



High accuracy and high resolution



Quality texture



Fast time scanning and alignment



No calibration, no markers and only 1 USB cable



Perfect for CAD

When quality can't be compromised, your best options are Artec Spider and Space Spider. Delivering the accuracy of up to 50 microns and resolution of up to 100 microns, both scanners render elaborate curves, sharp edges and thin ribs.



NextEngine



Artec Eva



British
Geological Survey

Gateway to the Earth

Automated photography of “hand specimen” sized fossils with metadata recording and background removal

Simon Harris



Lessons Learnt

Lessons learnt.....(1 - Workflow)

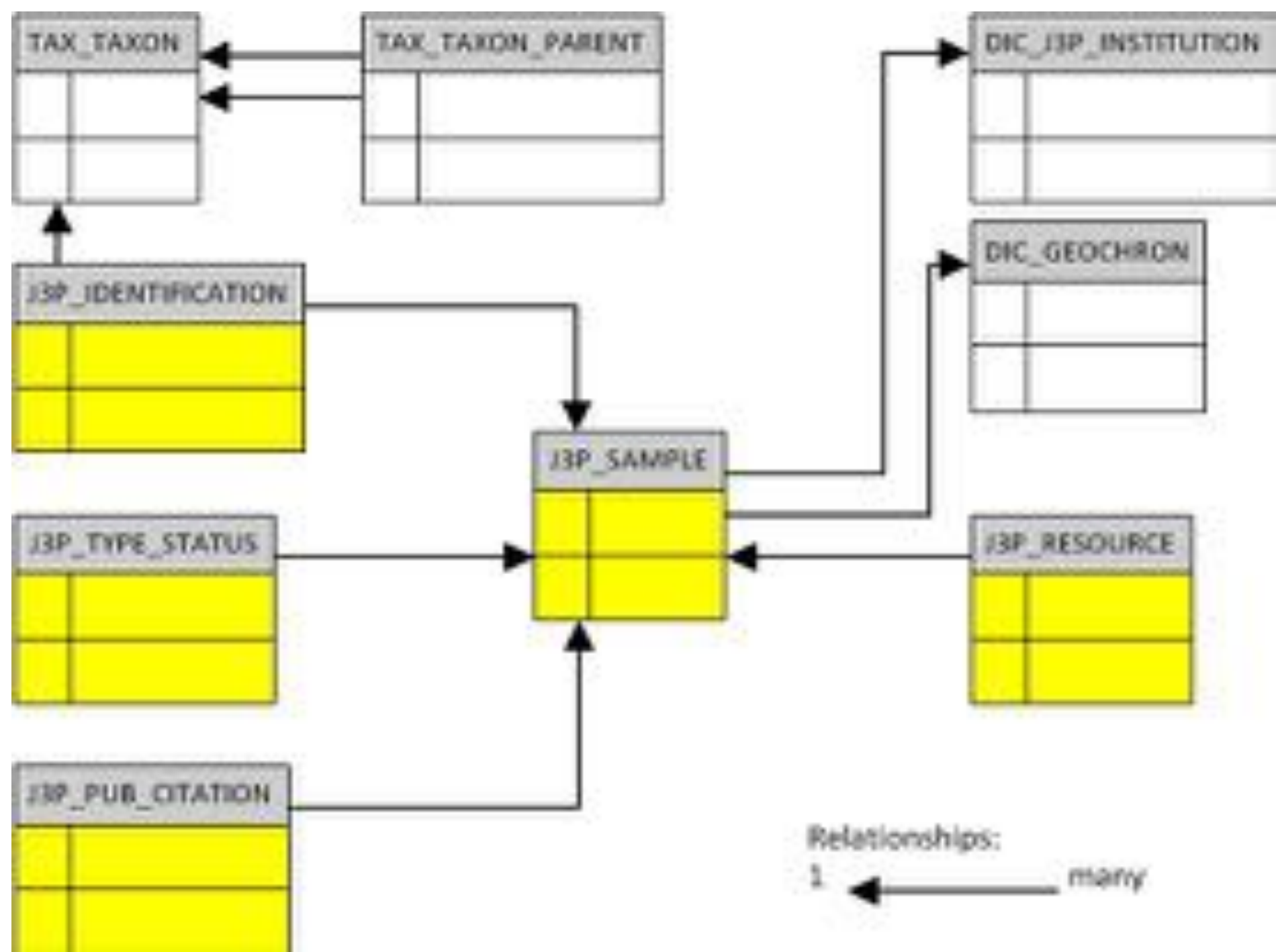
- Start the planning several months in advance
- Consider alternative ways of resourcing the project – government grants, foundation grants, “business as usual”, volunteers
- Consider outsourcing the digitisation
- Develop workflows, standards, costings. (Does your organisation have standard workflows that are not ideal for your project? Do you have the best technology/software?)
- Run a pilot project – find the problems before it's too late
- Database your specimens before you start – but see later
- Consider use of barcodes and automatic renumbering to reduce errors

Lessons learnt.....(2 - Resources)

- Consider recruiting dedicated team
- Consider a dedicated project manager
- Remember partners and many team members will have other deliverables besides yours
- If using other organisational services besides your own team, consider how you can ensure adequate control
- Hope you don't have 4 different Directors during the duration of the project

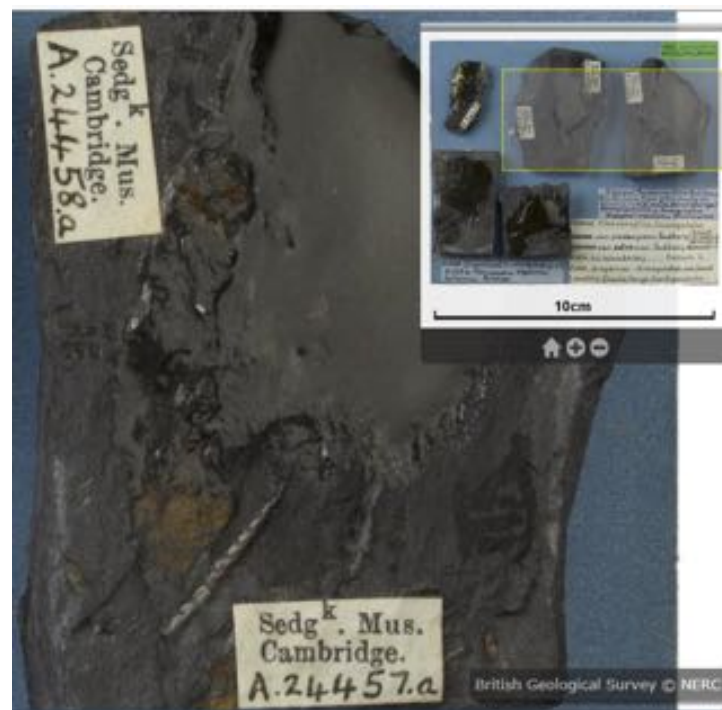
Lessons learnt.....(3 – Data, Databases, Schemas & Dictionaries)

the really tricky bit ...2,500 years of
legacy data



Typical problems: Sample/Specimen Registration

- Sedgwick Museum – One registration number per fossils specimen. A single block could have several numbers
- Geological Survey – One registration number per block. Could refer to several specimens. Problems in then linking bibliographic information



Typical problems: Chronostratigraphy

- Sedgwick Museum – Frequent use of **Bala** (= Caradoc + Ashgill) – Hangover from Sedgwick vs. Murchison?
- International or UK standards? UK tend to be finer, but conversion problems when boundaries don't coincide

3 <i>Homalonotus (Brongniartella) tawneyi</i> Reed nom. nud.		
Undifferentiated Type:	A 10558	(No thumbnail available) View full details
Locality:	Vyrnwy Dam, Rhayader (near), Bala, Gwynedd, Wales	
Rock Unit:	Bala	
Geological Age:	Ashgill Epoch [Ordovician Period] – Caradoc Epoch [Ordovician Period] (443.7 – 460.9 Ma B.P.)	
Resources:	(None available)	

Typical problems: Lithostratigraphy

- M. triangulatus Band (Horizon D) - **Biozone**
- Saltern Cove Goniatite Band - **? Biozone**
- Valentian – **Legacy chronostratigraphic term**
- Middle Devonian - **Chronostratigraphy**

Typical problems: Similar Databases - differing implementations

- Cambridge SNBase
- Cardiff MicroMuseum

Both MobyDoc - but use different data structures

|Middle Arenig ~ Arenig ~ Canadian ~ Ordovician ~ Cambro-Silurian ~ Paleozoic
~ Phanerozoic ~ ../..

Aurelucian/Burrellian Stage

- Some museums unable to provide .CSV export file

International Standards

- **Darwin Core**
- **ABCDEFG** (Access to Biological Collections Data – Extension For Geoscience)
- Great for the future - but not so helpful in dealing with 2,500 years of legacy data

Solution:

Two fields for each attribute

- Free text as per original registration – the **definitive registration information**
- Dictionary controlled best current interpretation – possibly even crowd sourced. **Current best interpretative discovery information**

Website

www.3d-fossils.ac.uk

