



Universität des Saarlandes
Angewandte Sprachwissenschaft sowie
Übersetzen und Dolmetschen

British/Irish Geology

Robert Spence

CS

Expanding the timescale

Geological history

History of geology

Unit 1

British/Irish Geology

Geological history and history of geology

Introduction to Culture Studies (UK & Ireland)

27 April 2017 /

9 floréal de l'an CCXXV de la République

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Figure: William Smith (1769 – 1839), Father of English Geology

(Source: Wikipedia)

Princess Diana's favourite hymn

- What's this got to with geology??

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- Are there any words in the text you don't know?

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- <http://www.youtube.com/watch?v=Khh8isGtB6w>

1 Expanding the timescale

Overcoming Ussher's chronology

Linear, spiral, logarithmic scales

Modern chronology

2 Geological history

Geological periods

Britain from the Pre-Cambrian to today

Geology of Britain and Ireland

3 History of geology

James Hutton

Charles Lyell

William Smith

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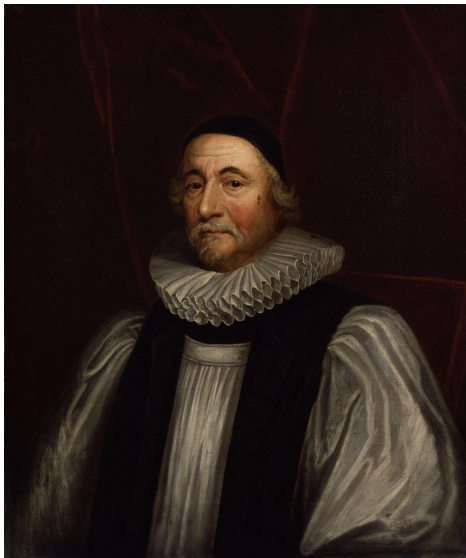
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- By end of twentieth century: billions of years old

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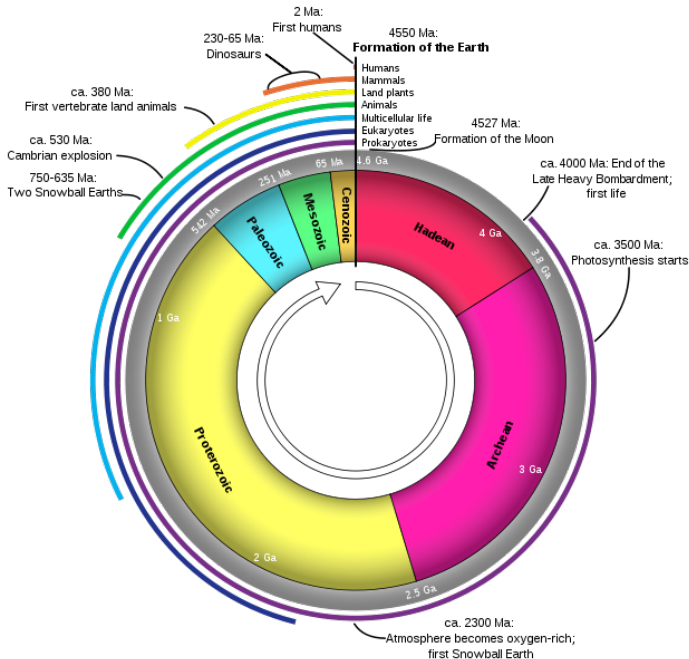
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- Linear scale: humbling, but difficult to fit
- Spiral scale: easier to fit on page (see next slide)

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- Spiral scale: easier to fit on page (see next slide)
- Logarithmic scale: requires rethinking (see handout)



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- Universe formed 13.798 ± 0.037 Ga (=BYA, billion years ago)

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<http://tinyurl.com/cosmicevolution>

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- Cosmic Evolution: From Big Bang to Humankind
<http://tinyurl.com/cosmicevolution>
- 4 billion years of evolution in 8 minutes:
<http://tinyurl.com/sagan-in-8-new> or:
<http://tinyurl.com/sagansearch>

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Geological periods (1)

- An Australian mnemonic:

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Geological periods (1)

- An Australian mnemonic:
- Cans Of Spinach

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Geological periods (1)

- An Australian mnemonic:
- Cans Of Spinach
- Do Cause Popeye

Geological periods (1)

- An Australian mnemonic:
- Cans Of Spinach
- Do Cause Popeye
- To Jump Carefully

Geological periods (1)

- An Australian mnemonic:
- Cans Of Spinach
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- To Jump Carefully
- Through Queensland

Geological periods (1)

- An Australian mnemonic:
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- Now join the names on your sheet

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- Cambrian Ordovician Silurian

Geological periods (2)

- Cambrian Ordovician Silurian
- Devonian Carboniferous Permian

Geological periods (2)

- Cambrian Ordovician Silurian
- Devonian Carboniferous Permian
- Triassic Jurassic Cretaceous

- Cambrian Ordovician Silurian
- Devonian Carboniferous Permian
- Triassic Jurassic Cretaceous
- Tertiary (=Paleogene+Neogene)
Quaternary (=Pleistocene+Holocene)

Britain from the Pre-Cambrian to today

- Deep time:
extract 1 from Attenborough documentary:
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 - Closures, openings, orogenies
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- http://www.discoveringfossils.co.uk/how_britain_formed.htm

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- northward movement and collision:
see extract from Iain Stewart documentary:
<http://tinyurl.com/menofrock2new> (at 54:00)
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- geological resources formed along the way: coal, oil/gas,
chalk, clay, ...
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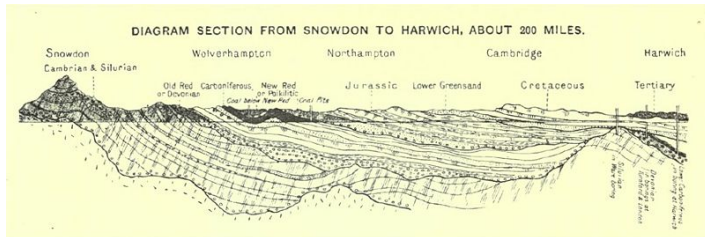


Figure: Cross-section of Britain from Snowdon to Harwich

See also the beginning of next week's lecture, and the map at the end of this lecture.

James Hutton



Source: Wikipedia

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- 1726 – 1797

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- “Gradualism” (many small changes over time add up to a big change)
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- Friend of Charles Darwin

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- 1797 – 1875
- Foremost geologist of his day
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- Uniformitarianism (same laws operating at all times)
- http://en.wikipedia.org/wiki/Charles_Lyell

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- first geological map (see next slide)
- `http:`
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William Smith's map



Figure: William Smith's geological map

Source: Wikimedia Commons

(What are the black bits?)