• Forensic Geology
• Substitution case - Ehrenberg
• Gems, mining, Bre-ex
• Water, oil, gas, shale gas?
• Fossils: Beringer, Cuvier, Deprat, Gupta,, amber and feathered dinosaurs
• Archaeology: Piltdown Man; Bosnian Pyramids
• Art and Historic Fraud
• Baugh and Creationism
• Forensic Geoscience Group (GSL)
• Initiative on Forensic Geology (IUGS-UNESCO)
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1. Forensic Geology
1. Forensic Geology or Geoforensic Science

- Search for buried or sunken objects
- Crime Scene
- Sample (trace evidence)
In ‘The Sign of the Four’ Holmes establishes that a visitor has sent a telegram by the mud on their shoes being identical to that in the broken pavement outside the post office.
2. Christian Gottfried Ehrenberg substitution case

1795 – 1876
Substituted computer parts – modern take on Ehrenberg’s case
3. Gem Fraud

- Removal of impurities (e.g. diamonds)
- Synthetic gems – very hard to differentiate (process is geological). Often no impurities
- Blood diamonds – good old intelligence and policing
- Natural gems – have inclusions
Fake Diamonds

- Fog test
- Heat test
- Light test
- Sink test
- UV test
- And failing them – x-ray diffraction or jeweller
Mining Fraud

- Abbot’s Dirt Piles
- Bre-ex
- Smoke rolled cigarettes
4. Water and Groundwater

- Quack doctors and radium
- Dowsers, rain-dancers, cloud seeders and bogus drillers
- Bottled water that is tap water
- Oil and Gas
5. Fossils

- Beringer – Ignatz Roderick and Johann Eckhart
- Cuvier – accused Mary Anning of fakery
- Deprat – substituted trilobites in Indonesia
- Gupta – the greatest palaeo faker?
- Amber and feathered dinosaurs – Hoyle vs Charig
Beringer – Ignatz Roderick and Johann Eckhart
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Gupta – the greatest palaeo faker?

Viswa Jit Gupta vs John A. Talent (bought Morroccan fossils in a shop that were identical to Gupta’s from Himalayas)
Gupta – the greatest palaeo faker?

- fossils purchased elsewhere – claimed origin Himalayas.
- Papers illustrated with general location maps
- Where the sites could be located they contained either unfossiliferous rocks, or no exposure of rocks at all.
- re-publish the same fossils claiming them to be from geographically different sites (conodont).
- Gupta brought in unsuspecting, internationally renowned experts.
Amber and feathered dinosaurs – Hoyle vs Charig

Piltdown Fly – NHM acquired Freidrich Loew 1850, described by Will Henning 1920; crack observed under hot microscope by Andrew Ross (1993): modern fly in 30MA amber

http://www.talkorigins.org/faqs/archaeopteryx/forgery.html

http://www.strangescience.net/stfor2.htm
Fossils by Rick Sardinha
www.selahministries.net
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Fossils

Real Dragon Fossils on Display in China picture, I always thought that they were a Mythical Creature!
5. Fossils
https://depositsmag.com/2015/12/19/fossil-fakes-and-their-recognition/

Fig. 1. Well-known fossil fakes: a. Faked fossil human footprint; b. Examples of Beringer's fake fossils; and c. Archaeoraptor, made of fossils belonging to different species, including at least one bird and a dromaeosaurus.

Fig. 2. Specimens faked in their entirety: a. Fake Metzrosaurus made with resin; b. Fake Androsaurus selenopsalis mounted in resin; c. Cross section of a Moroccan trilobite fake mounted in resin; d. Fake hadrosaur nest of eggs made with concrete. This "nest" was sold on an auction website on the internet; e. Chinese trilobite carved in stone; f. Bolivian "trilobite" with a castel made of clay; g. Specimens of sun-baked fossil shrimps Caracocenacus: h. Scorpion in resin, sold as if it came from authentic amber from the Baltic; i. Modern snake in resin claimed to be a fossil in amber; j. Skull of a dinosaur crocodiliform made of plaster; k. Fake fossil bird sold on the internet; l. Fake fossil dragonfly; and m. Septarian concretion sold as a dinosaur coprolite.
6. Archaeology – Piltdown Man, Bosnian Pyramids

Bosnian pyramids – Semir Osmanagic – widely refuted
- They are flatirons
Archaeology – Piltdown Man, Bosnian Pyramids

http://www.cracked.com/article_19672_5-ridiculous-archeological-frauds-that-fooled-world.html

Calaveras Skull
Cardiff Giant
Davenport Tablets
"Egyptian mummy" ca. 1898 at the Old Capitol Museum, Jackson, MS
Etruscan terracotta warriors in the Metropolitan Museum of Art
Glozel tablets, bearing prehistoric writing
Grave Creek Stone
Japanese Paleolithic hoax
Michigan relics
Persian Princess, forged ancient mummy, possible murder victim
Piltdown Man
Tiara of Saitaferne in Louvre
Geological Fakes and Frauds

21st September 2016
Bristol

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7. Art Fraud: Walter McCrone

- Vinland Map – 15thC *mappa mundi* (Towe et al; Brown et al) – modern pigments
- Margaret Wieseman’s ‘A Man With Dead Birds’
- McCrone did the Turin Shroud work

*deHooch, overpainted by Regemorter x-ray analysis*
8. Creationism

Carl Baugh/George Adams – Creation Evidence Museum (1984); Trinity Broadcasting Network; Paluxy River T-Rex and human tracks; Ordovician miner’s hammer; ‘dinosaur’ crocodile teeth; criticized by Creationists.

http://www.creationevidence.org
https://www.texasobserver.org/tracking-creation-in-glen-rose/
International Union of Geological Sciences (IUGS) Initiative on Forensic Geology (IFG)

Summary

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International Union of Geological Sciences (IUGS) Initiative on Forensic Geology (IFG)
Forensic Geology or Geoforensic Science

- Search for buried or sunken objects
- Japanese Gold
- Crime Scene
- Sample (trace evidence)

Faked Crime Scene

p.93-94. 50. The Problem of Thor Bridge
‘Observations: Doyle based this story on two sources …

A faked German suicide related by Hans Gross in his book ‘Criminal Investigation’
Want to know more?