

Jarvis's Inbred

new discoveries. pleasure
not confidence - Archibald
in repairing an old house
in command the family for a
while in - Importance of the
the capturing the Chem
of nature and contributing
to return the wants of life -
Ancient know best of chemistry
- middle ages - Stahl's phlogis-
troph theory - Lavoisier
Observations on Gay Lussac -
- As it is now found to be
the alkaly song, as well as
the acidifying principle, the
name ought to be changed.
- Two methods of procuration seem
Analysis - Synthesis - The latter
to be adopted in this course

he must first have mate-
rials and then begin to build
the house, rough blocks. —

— Two principles Metallic
substances and Oxygenous Sub-
stances — Swedish Chemists
Discovery — by which large quan-
tities of Potash can be pre-
pared — very important. — When
Mr. D's Experiments on the At-
kalis reached Paris, the Emperor
ordered a Galvanic Apparatus
worth 20,000 francs to be
constructed. — A few public
spirited Individuals have by
subscription raised a sum ^{greater than}
~~less~~ than that by an Imperat-
rice.

— Carbon, Sulphur, Phospho-
rus, probably compound
^{of them}
Metals.

Lecture 13

Modes of procuring potash and
Sodium - Barytes made by and
ganation, French made by iron
shown.

— Earths divided into Alkaline
earths and earths proper. The
Alkaline Earths are Barytes, Strontia,
Magnesia and ~~Silica~~ ^{Lime} - The Earths
are Alumina, Silica, Yttria,
Glauca and Zirconia. The for-
mer are called alkaline Earths
because they neutralize acids &
turn blue ^{lit} litmus to green.
The latter produce neither of these
effects.

Decomposition of the Earths, prima-
rily by Amalgamation with
Mercury, in ~~the~~ some instances
by potash. Experiments on
Barium Strontium &c —

Mr. D. then ~~then~~ proceeded to explain the cause of Earthquakes Volcanos, Meteoric Stones &c from the properties of the new metals - Representation of a volcano - A meteoric stone by throwing into the air a little protosilver and water -

gave a long history of the appearance of Meteoric Stones - exhibited Mr. Douville's large Meteoric Stone which fell in Yorkshire in 1756 with several others of a smaller size which fell in different parts of the world - Mr. D. read Sir John Pringle's opinion respecting the origin of these ^{Meteoric} stones, from the Plat. Compositions - They are bodies moving in our system, round the sun, and answer some great and important purpose &c - This opinion Mr. D. adopts. He thinks it liable

~~to~~ to fewer objections than any of the others.

+ He considered the interior parts of the earth as indistinct, as the specific gravity had, from Dr. Maskelyne's observations on Schiehallon, been found to be ^{greater} ~~less~~ ^{densely} ~~less~~ as the mean specific gravity ~~of~~ at the surface. (quere can the new metals occupy the interior parts of the earth, and occasion the greater density, when some of them are lighter than even water) -

- The lately discovered ^{Plutoids} planets are very small when compared with those formerly known. The ^{in magnitude} difference, between Ceres &c and some meteors that have been observed, is much less than between Ceres and ^{the} moon. (This is, in my opinion, the least satisfactory of all the explanations of the phen^a of meteoric stones)

- The density of the earth is found to be $1\frac{1}{2}$ times that of water, then would agree very well with the mean height of all the metals.
- The metals of the earths are hard and very refractory and processed with more difficulty than from the Alkalies.
- In converting brittle cast iron into malleable iron, there is separated from it a brittle metallic substance, which is according to Mr. D. the metal of silica united to iron. Silica by conversion would add hardness to iron where it was wanted. A particular kind of steel comes from the east, so hard as to cut glass.
- The artificial volcano was a mountain of clay, in which was enclosed a composition of potassum, iron & lime. On pouring water into a pipe which led to this composition it ~~burst~~ flew, & ran down the outside of the crater.
- Geologists then capt. on the surf. of the earths existing as metals in the interior parts of the globe. The present surface of the land is wearing down and is daily washed into the sea.

Saturday 27th April 1811
Geology Lect: 1. St M. Davy.

— So diversified are mens minds
the same object is seldom consid-
ered under the same point of
view by two different persons.
One man considers this Earth
as subject to the laws of gravi-
tation and moving, as a planet,
round the sun. Another views
its surface — Land — Water — Moun-
tains valleys, Strata &c &c. In
considered in this view it is the
subject of Geology. Geology is
signified, says D. Davy, a knowledge
of the Earth!! —

— Two systems — Plutonian —
Neptunian — A short account
of them. To be more particularly
described afterwards, and the
principal arguments for and

against both combined.

— Mountains—Principles are secondary. ^{Strata} Veins, perpendicular horizontal—Two paintings of these shown—

— Principal writers on Geology mentioned—Playfair and Hutton—Noddy, De laue &c &c.

— J. D. thinks that there are insuperable objections to the Neptunian System. —

— Uses of Geology —

— An easy Study —

A minute knowledge of mineralogy not necessary. —

— D. bestowed great praise on Mr. Playfair— Also on De laue, altho' he was obliged to differ from ^{the latter} him in some of his doctrines.

Anger 2' Lecture
Experiments

1. Heating paper sealed with
Elast gum - no effect on paper
2. When the paper was warm
at the fire strong effect
3. Stuck on the wall
4. Paper heated on lead on
an insulated plate - Spark
from the lower side - a
proof of Brewster's theory
5. Can carry ball in a long
candle - a wire with a ball
from vacuum machine, ball at
the bottom of the candle
6. Two drinking glasses, one
charged for inside, other out
side, by a point for lead?

puth both thrown into one, then
beams applied to each other - both are
from one to the other -

7. Construction of the Elect. Ma-
chine, all on Natives -

8. Feather attached to the conductor,
then to the hand - This owing
to attraction. Repulsion same

9. Three balls, as usual -

10. Dancing figures - five balls.

11. Bundle of threads hung on
the Cond. of the large Machine
draw into an oval form. The
Cond. touched with Metal, glass
reading was by

12. Electric matter (spark from the
large Machine sent round the
room, several entwined, sponge
tube in the center.

13. The glass support of the
conductor with - no spark

14.

Saturday 4th May 1811.

Geology Lect: L. W. Davy

- Primary rocks. Granite.
 - Micaeous Schist. Serpentine.
 - Marble. Porphyry. Sienite.
 - Arrangements of primary rocks in nature, and there connection with the Economy of things
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Notes on Lectures

Scientific Institution	140
Royal Institution	242
Davy's lectures	44
General Lectures	14
Thomson on Bolding	14