

EXPLANATORY NOTES

- 3 *Lidenbrock*: *Lid* is German for 'eye-lid', *brocken*, 'crumb, lump (of coal), or scrap' or 'to pluck'.

Axel: perhaps from *axe* ('axis'); also *lexa* ('words') backwards.

- 4 *the Johanneum*: a famous classical grammar school, founded in Hamburg in 1529 and still in existence.

ghelenites, *fangasites*: neither word seems to be in the dictionaries. The first may even mean 'gelignites' ('gélinites' is a variant spelling in French).

- 5 *Davy*: see note in ch. 6; *Humboldt*: Baron von Friedrich H. A. (1769–1859), German naturalist and traveller, also worked in Paris, author notably of *Kosmos* (1845), an essay on the physical constitution of the globe; *Franklin*: Sir John (1786–1847), British Arctic explorer, died after discovering Northwest Passage—as proved by an expedition later organized by his wife; *Sabine*: (later General) Sir Edward (1788–1883), British astronomer, accompanied Ross and Parry to Arctic 1818–20, specialist in terrestrial magnetism.

Becquerel: either Antoine César (1788–1878), used electrolysis to isolate metals from their ores, or possibly his son and assistant Alexander Edmond (1820–91), researched into solar radiation and diamagnetism; *Ebelmen*: (Verne: 'Ebelman') Jacques Joseph (1814–52), French chemist who synthesized precious stones; *Brewster*: probably Sir David (1781–1868), Scottish physicist, invented the kaleidoscope; *Dumas*: Jean-Baptiste André (1800–84), French chemist, noted for his research on vapour density and atomic weight; *Milne-Edwards*: see note in ch. 37; *Sainte-Claire Deville*: Charles (1814–76), French geologist, wrote *Éruptions actuelles du volcan de Stromboli*.

- 6 *Tugendbund*: 'League of Virtue' (1808–16).




Gräuben: Verne wrote 'Graüben' throughout, but, in line with normal German practice, this has been changed to 'Gräuben': *graben*, 'to dig (out), excavate, mine, burrow';

Grauen, 'horror, dread'; *üben*, 'to drill or exercise'; from *Virland*: ('Virlandaise') not a recognizable German word: undoubtedly one of Verne's mystifications based on 'ViRlaNdaisE' and on 'Vinland' (the Scandinavian colony in N. America, c.1000, settled from Iceland) + *vir* (Latin for 'man'; cf. 'virile'—it is Gräuben who wears the trousers).

- 8 *Bozérian*: (Verne: 'Bozerian') two brothers who produced luxurious bindings in Paris at the time of Napoleon.

Snorre Turluson: Snorri Sturluson (1179–1241), politician and historian, wrote a saga of St Olaf, rejecting some of the grosser hagiographical elements in his sources: this work forms the central part of his *Heimskringla*, chronicling Norse mythology and early history. At this time, books in Iceland were entirely made out of vellum, not just the covers.

runic: Verne saw runic characters on stone inscriptions near Oslo in 1861. In 1875, he said that he based his runes on those of an illustration in *L'Univers pittoresque*. The characters here resemble only approximately the runes used in Scandinavia from about 450 to the 1200s (and in Anglo-Saxon Britain between 650 and 1100). They were known to few people, hence were thought to have occult powers.

- 10 *loin of veal with plum sauce...prawns in sugar*: this would seem to be poking fun at the tendency of some northern nations to eat sweet things with meat. But it may also be a sign of the diabetes that Verne was later to contract.
- 12 *double m*: the corresponding rune is  which, as Lidenbrock says, is intended to equal a double *m*, given that the other *m*'s in the message are . The French edition, nevertheless, gives 'm.rnlls': this has been corrected to 'mm.rnlls', in the light of Verne's own transcription of  on the next page, namely *mm*.

stain: there is an anecdote, reported by Maurice Métral in *Sur les pas de Jules Verne* (Neuchâtel, Nouvelle Bibliothèque, 1963), that Verne found the faded log-book of a frigate captain called Pierre Leguerte; it had a bloodstain on the last page, and he is meant to have often speculated what had happened to the author. But Métral is often unreliable, and there is no supporting evidence for this story.

- 13 *Arne Saknussem*: loosely based on Professor Árni Magnússon (1663–1730), an Icelandic scholar who travelled on behalf of the King of Denmark to collect the manuscripts of the Sagas—and who always wrote in Latin. Some of his material was destroyed during a fire at the University of Copenhagen in 1728.

Avicenna: or Ibn Sina (980–1037), Islamic scientist and author of nearly 200 works; *Bacon*: Roger (1220–92), English philosopher and scientist, studied optics and gunpowder, accused of dealing in black magic; *Lull*: Raymond Lully (or Lull) (c.1232–1315), Spanish theologian and philosopher, author of the ‘Lullian method’ towards systematic knowledge; *Paracelsus*: (1493–1541), Swiss healer, advocated ‘folk’ and ‘chemical’ remedies to illness, also investigated mining and minerals in the Tyrol.

- 14 *Altona*: Sartre’s *Les Séquestrés d’Altona* (1959) was set here, and the stage directions indicate a 19th-century room; in the autobiographical *Les Mots* (1963), Sartre repeatedly emphasizes his early passion for Verne.

- 15 *the Alster*: joins the Elbe in Hamburg.

- 18 *that word-puzzle . . . solved*: part of Oedipus’s quest was to solve a riddle set him by the Sphinx.

- 19 *in the third line*: in fact, in the second and third lines.

- 20 *A mere ‘nothing’*: (French: *rien*) ‘nothing’ in medieval Latin is *rem*, which is not only the ending of *craterem*, but also the previously quoted *mer* (‘sea’) backwards.

- 22 *20 letters . . . 133 digits*: the figure for 20 letters (20 factorial) is correct, provided that all 20 letters are different; but 132 factorial has in fact 125 digits.

- 25 *from . . . first*: Verne probably derived this method of constructing a cryptogram from Poe’s ‘The Gold Bug’, which he quotes extensively in his ‘Edgar Poe et ses œuvres’ (1864).

calends: the first day of the month in the Roman calendar.

Leyden jar: a kind of electrical condenser with a glass jar as a dielectric between sheets of tin foil, invented in 1745 at Leyden University.

- 27 *August Petermann of Leipzig*: (Verne: ‘Augustus Peterman’) (1822–78), cartographer and geographer, in fact from Hamburg and Gotha.