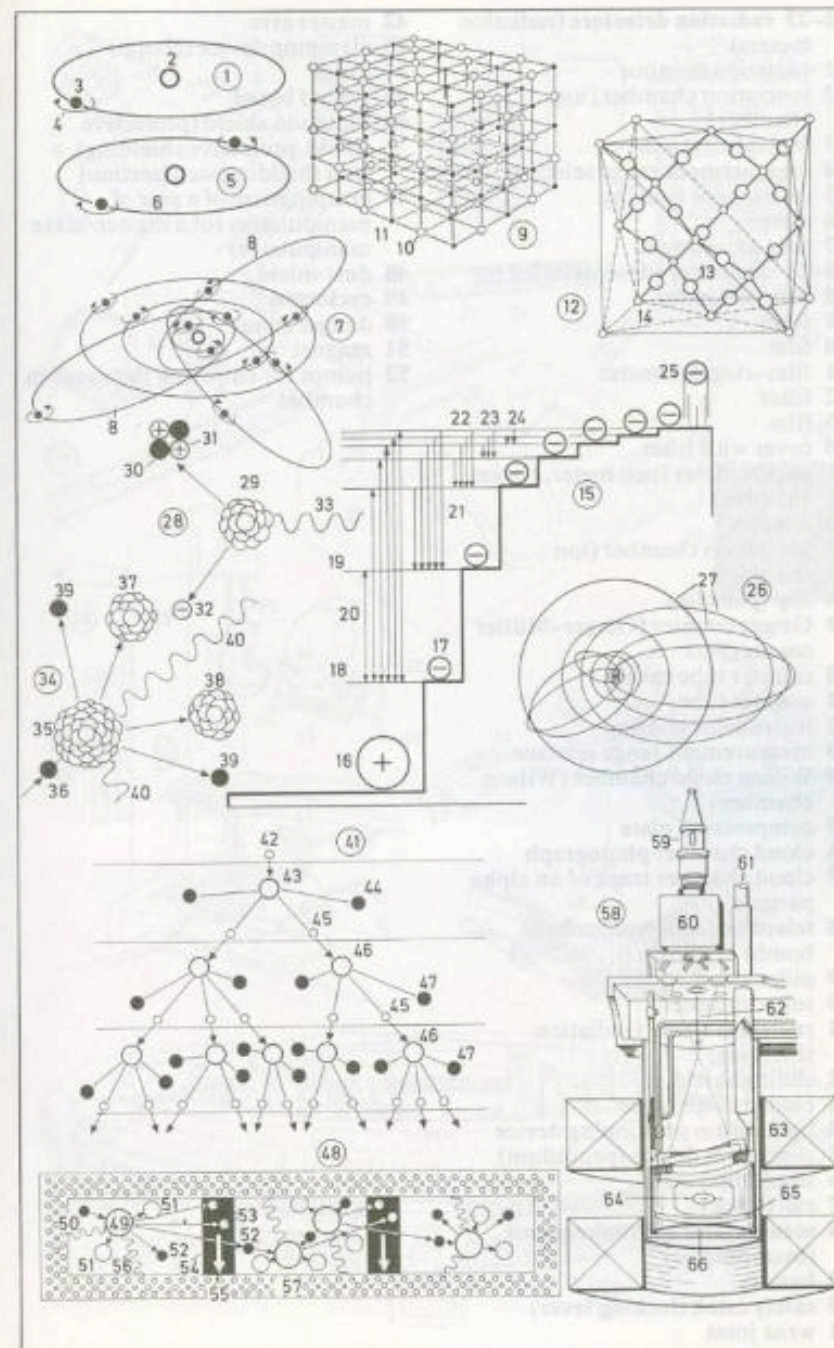


1-8 atom models

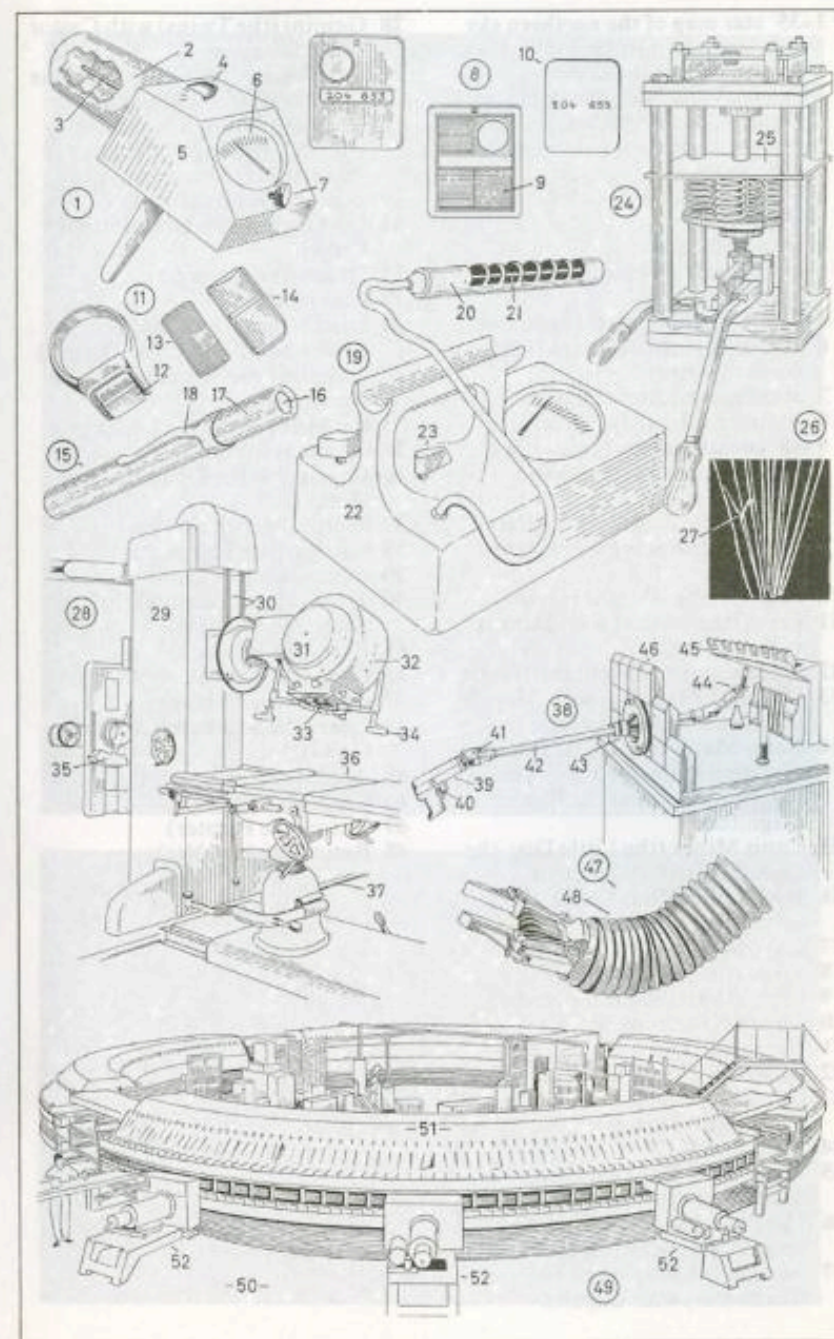
- 1 model of the hydrogen (H) atom
- 2 atomic nucleus, a proton
- 3 electron
- 4 electron spin
- 5 model of the helium (He) atom
- 6 electron shell
- 7 Pauli exclusion principle (exclusion principle, Pauli principle)
- 8 complete electron shell of the Na atom (sodium atom)
- 9-14 molecular structures (lattice structures)
- 9 crystal of sodium chloride (of common salt)
- 10 chlorine ion
- 11 sodium ion
- 12 crystal of cristobalite
- 13 oxygen atom
- 14 silicon atom
- 15 energy levels (possible quantum jumps) of the hydrogen atom
- 16 atomic nucleus (proton)
- 17 electron
- 18 ground state level
- 19 excited state
- 20-25 quantum jumps (quantum transitions)
- 20 Lyman series
- 21 Balmer series
- 22 Paschen series
- 23 Brackett series
- 24 Pfund series
- 25 free electron
- 26 Bohr-Sommerfeld model of the H atom
- 27 energy levels of the electron
- 28 spontaneous decay of radioactive material
- 29 atomic nucleus
- 30-31 alpha particle (α , alpha radiation, helium nucleus)
- 30 neutron
- 31 proton
- 32 beta particle (β , beta radiation, electron)
- 33 gamma radiation (γ , a hard X-radiation)
- 34 nuclear fission:
- 35 heavy atomic nucleus
- 36 neutron bombardment

37-38 fission fragments

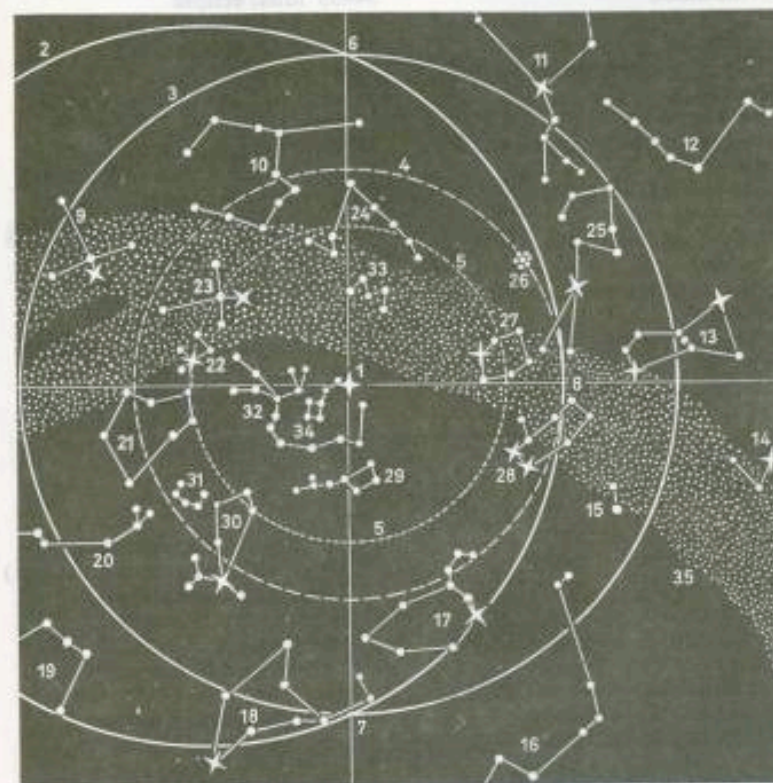
- 39 released neutron
- 40 gamma radiation (γ)
- 41 chain reaction
- 42 incident neutron
- 43 nucleus prior to fission
- 44 fission fragment
- 45 released neutron
- 46 repeated fission
- 47 fission fragment
- 48 controlled chain reaction in a nuclear reactor
- 49 atomic nucleus of a fissionable element
- 50 neutron bombardment
- 51 fission fragment (new atomic nucleus)
- 52 released neutron
- 53 absorbed neutrons
- 54 moderator, a retarding layer of graphite
- 55 extraction of heat (production of energy)
- 56 X-radiation
- 57 concrete and lead shield
- 58 bubble chamber for showing the tracks of high-energy ionizing particles
- 59 light source
- 60 camera
- 61 expansion line
- 62 path of light rays
- 63 magnet
- 64 beam entry point
- 65 reflector
- 66 chamber



- 1-23 radiation detectors (radiation meters)
 1 radiation monitor
 2 ionization chamber (ion chamber)
 3 central electrode
 4 measurement range selector
 5 instrument housing
 6 meter
 7 zero adjustment
 8-23 dosimeter (dosemeter)
 8 film dosimeter
 9 filter
 10 film
 11 film-ring dosimeter
 12 filter
 13 film
 14 cover with filter
 15 pocket meter (pen meter, pocket chamber)
 16 window
 17 ionization chamber (ion chamber)
 18 clip (pen clip)
 19 Geiger counter (Geiger-Müller counter)
 20 counter tube casing
 21 counter tube
 22 instrument housing
 23 measurement range selector
 24 Wilson cloud chamber (Wilson chamber)
 25 compression plate
 26 cloud chamber photograph
 27 cloud chamber track of an alpha particle
 28 telecobalt unit (coll. cobalt bomb)
 29 pillar stand
 30 support cables
 31 radiation shield (radiation shielding)
 32 sliding shield
 33 bladed diaphragm
 34 light-beam positioning device
 35 pendulum device (pendulum)
 36 irradiation table
 37 rail (track)
 38 manipulator with sphere unit (manipulator)
 39 handle
 40 safety catch (locking lever)
 41 wrist joint
 42 master arm
 43 clamping device (clamp)
 44 tongs
 45 slotted board
 46 radiation shield (protective shield, protective shielding), a lead shielding wall [section]
 47 grasping arm of a pair of manipulators (of a master/slave manipulator)
 48 dust shield
 49 cyclotron
 50 danger zone
 51 magnet
 52 pumps for emptying the vacuum chamber



- 1-35 star map of the northern sky (northern hemisphere)
 1-8 divisions of the sky
 1 celestial pole with the Pole Star (Polaris, the North Star)
 2 ecliptic (apparent annual path of the sun)
 3 celestial equator (equinoctial line)
 4 tropic of Cancer
 5 circle enclosing circumpolar stars
 6-7 equinoctial points (equinoxes)
 6 vernal equinoctial point (first point of Aries)
 7 autumnal equinoctial point
 8 summer solstice (solstice)
 9-48 constellations (grouping of fixed stars into figures) and names of stars
 9 Aquila (the Eagle) with Altair the principal star (the brightest star)
 10 Pegasus (the Winged Horse)
 11 Cetus (the Whale) with Mira, a variable star
 12 Eridanus (the Celestial River)
 13 Orion (the Hunter) with Rigel, Betelgeuse and Bellatrix
 14 Canis Major (the Great Dog, the Greater Dog) with Sirius (the Dog Star), a star of the first magnitude
 15 Canis Minor (the Little Dog, the Lesser Dog) with Procyon
 16 Hydra (the Water Snake, the Sea Serpent)
 17 Leo (the Lion)
 18 Virgo (the Virgin) with Spica
 19 Libra (the Balance, the Scales)
 20 Serpens (the Serpent)
 21 Hercules
 22 Lyra (the Lyre) with Vega
 23 Cygnus (the Swan, the Northern Cross) with Deneb
 24 Andromeda
 25 Taurus (the Bull) with Aldebaran
 26 The Pleiades (Pleiads, the Seven Sisters), an open cluster of stars
 27 Auriga (the Wagoner, the Charioteer) with Capella
 28 Gemini (the Twins) with Castor and Pollux
 29 Ursa Major (the Great Bear, the Greater Bear, the Plough, Charles's Wain, *Am.* the Big Dipper) with the double star (binary star) Mizar and Alcor
 30 Boötes (the Herdsman)
 31 Corona Borealis (the Northern Crown)
 32 Draco (the Dragon)
 33 Cassiopeia
 34 Ursa Minor (the Little Bear, Lesser Bear, *Am.* Little Dipper) with the Pole Star (Polaris, the North Star)
 35 the Milky Way (the Galaxy)
 36-48 the southern sky
 36 Capricorn (the Goat, the Sea Goat)
 37 Sagittarius (the Archer)
 38 Scorpio (the Scorpion)
 39 Centaurus (the Centaur)
 40 Triangulum Australe (the Southern Triangle)
 41 Pavo (the Peacock)
 42 Grus (the Crane)
 43 Octans (the Octant)
 44 Crux (the Southern Cross, the Cross)
 45 Argo (the Celestial Ship)
 46 Carina (the Keel)
 47 Pictor (the Painter)
 48 Reticulum (the Net)



1-9 the moon

1 moon's path (moon's orbit round the earth)

2-7 lunar phases (moon's phases, lunation)

2 new moon

3 crescent (crescent moon, waxing moon)

4 half-moon (first quarter)

5 full moon

6 half-moon (last quarter, third quarter)

7 crescent (crescent moon, waning moon)

8 the earth (terrestrial globe)

9 direction of the sun's rays

10-21 apparent path of the sun at the beginning of the seasons

10 celestial axis

11 zenith

12 horizontal plane

13 nadir

14 east point

15 west point

16 north point

17 south point

18 apparent path of the sun on 21 December

19 apparent path of the sun on 21 March and 23 September

20 apparent path of the sun on 21 June

21 border of the twilight area

22-28 rotary motions of the earth's axis

22 axis of the ecliptic

23 celestial sphere

24 path of the celestial pole (precession and nutation)

25 instantaneous axis of rotation

26 celestial pole

27 mean axis of rotation

28 polhode

29-35 solar and lunar eclipse [not to scale]

29 the sun

30 the earth

31 the moon

32 solar eclipse

33 area of the earth in which the eclipse appears total

34-35 lunar eclipse

34 penumbra (partial shadow)

35 umbra (total shadow)

36-41 the sun

36 solar disc (disk) (solar globe, solar sphere)

37 sunspots

38 cyclones in the area of sunspots

39 corona (solar corona), observable during total solar eclipse or by means of special instruments

40 prominences (solar prominences)

41 moon's limb during a total solar eclipse

42-52 planets (planetary system, solar system) [not to scale] and planet symbols

42 the sun

43 Mercury

44 Venus

45 Earth, with the moon, a satellite

46 Mars, with two moons (satellites)

47 asteroids (minor planets)

48 Jupiter, with 14 moons (satellites)

49 Saturn, with 10 moons (satellites)

50 Uranus, with five moons (satellites)

51 Neptune, with two moons (satellites)

52 Pluto

53-64 signs of the zodiac (zodiacal signs)

53 Aries (the Ram)

54 Taurus (the Bull)

55 Gemini (the Twins)

56 Cancer (the Crab)

57 Leo (the Lion)

58 Virgo (the Virgin)

59 Libra (the Balance, the Scales)

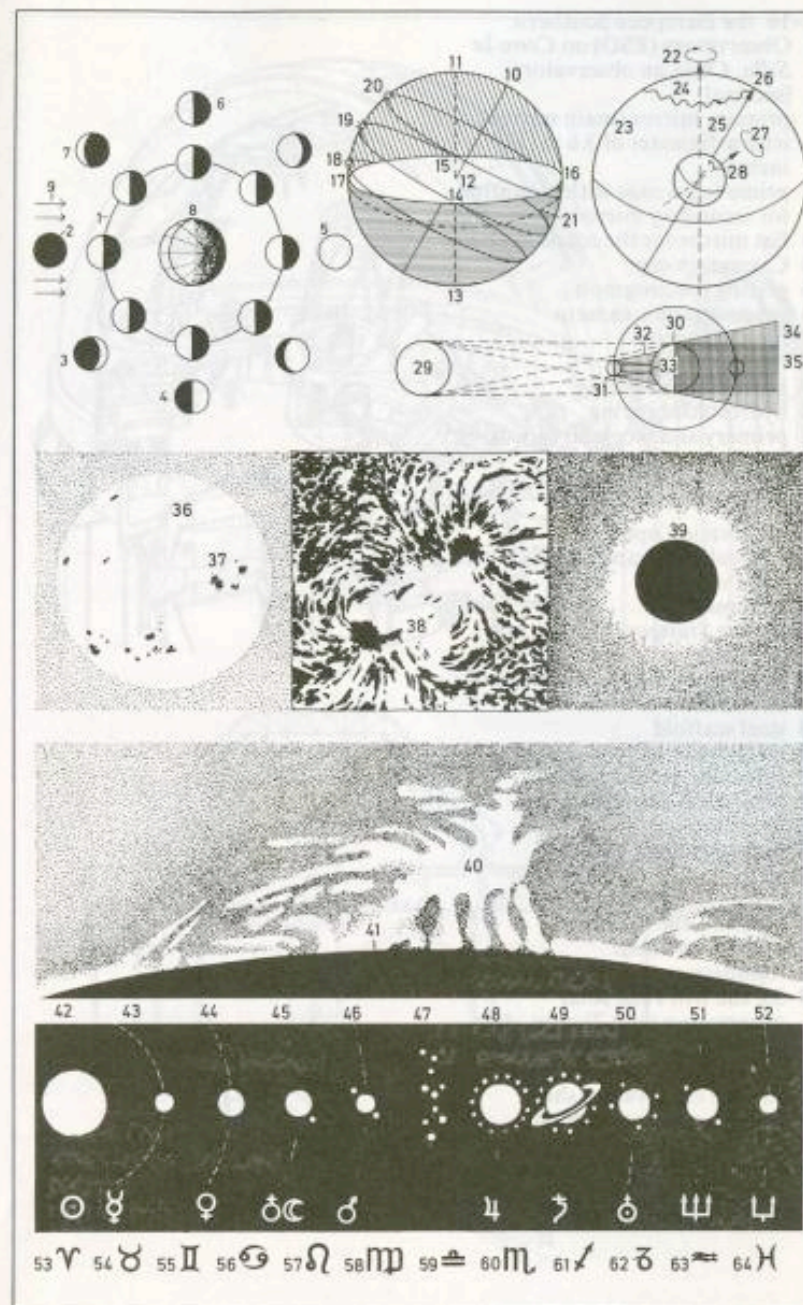
60 Scorpio (the Scorpion)

61 Sagittarius (the Archer)

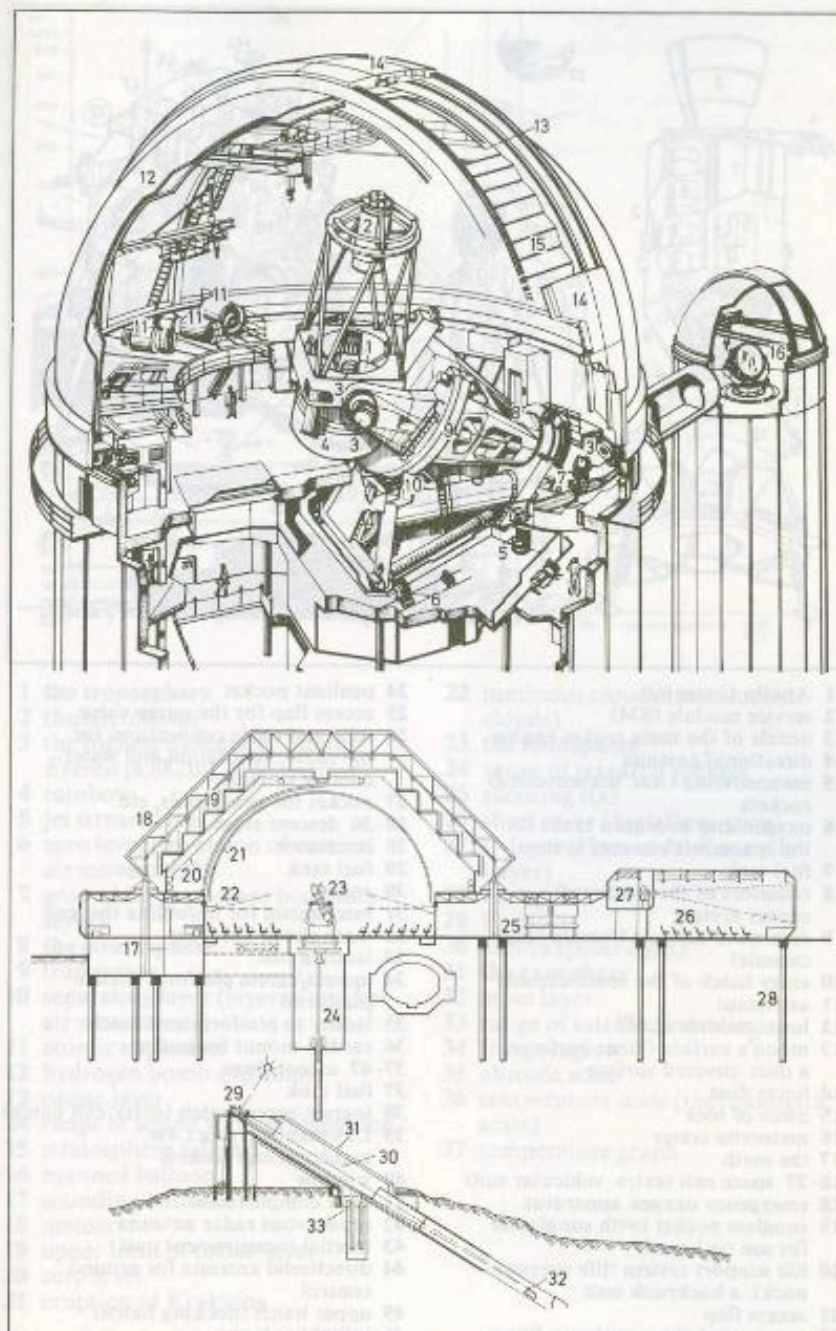
62 Capricorn (the Goat, the Sea Goat)

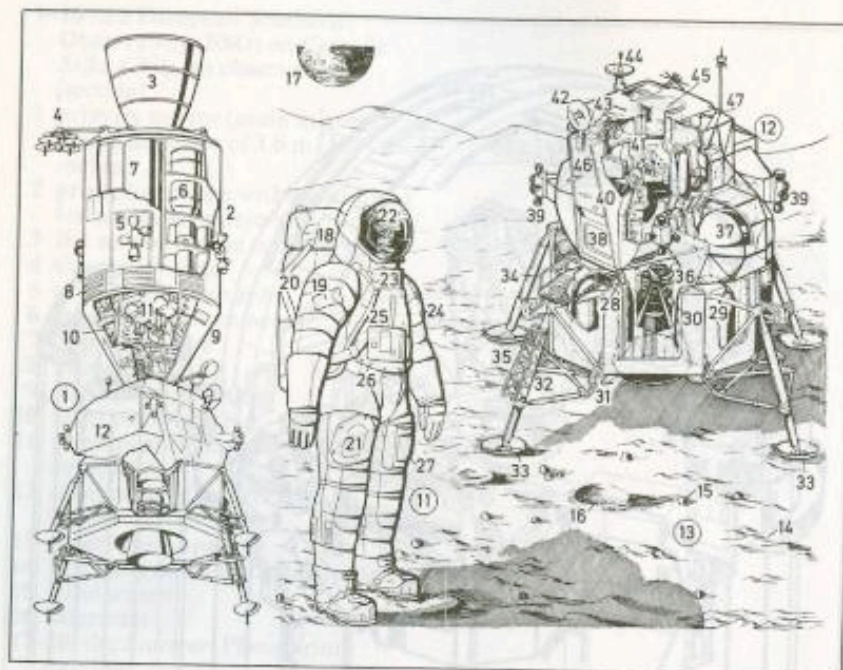
63 Aquarius (the Water Carrier, the Water Bearer)

64 Pisces (the Fish)

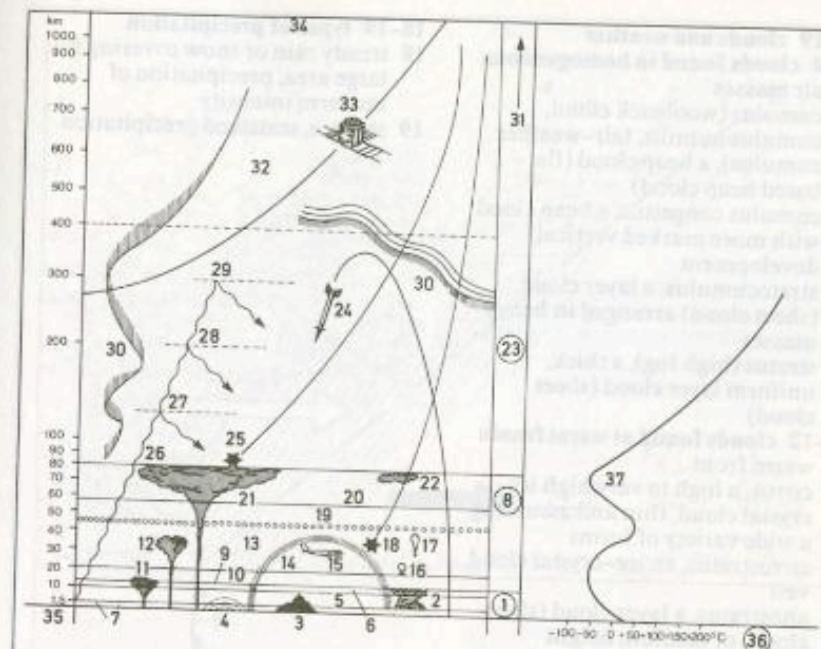


- 1-16 the European Southern Observatory (ESO) on *Cerro la Silla, Chile*, an observatory [section]
- 1 primary mirror (main mirror) with a diameter of 3.6 m (144 inches)
 - 2 prime focus cage with mounting for secondary mirrors
 - 3 flat mirror for the coudé ray path
 - 4 Cassegrain cage
 - 5 grating spectrograph
 - 6 spectrographic camera
 - 7 hour axis drive
 - 8 hour axis
 - 9 horseshoe mounting
 - 10 hydrostatic bearing
 - 11 primary and secondary focusing devices
 - 12 observatory dome (revolving dome)
 - 13 observation opening
 - 14 vertically movable dome shutter
 - 15 wind screen
 - 16 siderostat
- 17-28 the *Stuttgart Planetarium* [section]
- 17 administration, workshop, and store area
 - 18 steel scaffold
 - 19 glass pyramid
 - 20 revolving arched ladder
 - 21 projection dome
 - 22 light stop
 - 23 planetarium projector
 - 24 well
 - 25 foyer
 - 26 theatre (*Am. theater*)
 - 27 projection booth
 - 28 foundation pile
- 29-33 the *Kitt Peak solar observatory* near *Tucson, Ariz.* [section]
- 29 heliostat
 - 30 sunken observation shaft
 - 31 water-cooled windshield
 - 32 concave mirror
 - 33 observation room housing the spectrograph





- | | |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 Apollo spacecraft | 24 penlight pocket |
| 2 service module (SM) | 25 access flap for the purge valve |
| 3 nozzle of the main rocket engine | 26 tube and cable connections for the radio, ventilation, and water-cooling systems |
| 4 directional antenna | 27 pocket for pens, tools, etc. |
| 5 manoeuvring (Am. maneuvering) rockets | 28-36 descent stage |
| 6 oxygen and hydrogen tanks for the spacecraft's energy system | 28 connector |
| 7 fuel tank | 29 fuel tank |
| 8 radiators of the spacecraft's energy system | 30 engine |
| 9 command module (Apollo space capsule) | 31 mechanism for unfolding the legs |
| 10 entry hatch of the space capsule | 32 main shock absorber |
| 11 astronaut | 33 landing pad |
| 12 lunar module (LM) | 34 ingress/egress platform (hatch platform) |
| 13 moon's surface (lunar surface), a dust-covered surface | 35 ladder to platform and hatch |
| 14 lunar dust | 36 cardan mount for engine |
| 15 piece of rock | 37-47 ascent stage |
| 16 meteorite crater | 37 fuel tank |
| 17 the earth | 38 ingress/egress hatch (entry/exit hatch) |
| 18-27 space suit (extra-vehicular suit) | 39 LM manoeuvring (Am. maneuvering) rockets |
| 18 emergency oxygen apparatus | 40 window |
| 19 sunglass pocket [with sunglasses for use on board] | 41 crew compartment |
| 20 life support system (life support pack), a backpack unit | 42 rendezvous radar antenna |
| 21 access flap | 43 inertial measurement unit |
| 22 space suit helmet with sun filters | 44 directional antenna for ground control |
| 23 control box of the life support pack | 45 upper hatch (docking hatch) |
| | 46 inflight antenna |
| | 47 docking target recess |



- | | |
|----------------------------------------------------|-------------------------------------------|
| 1 the troposphere | 22 luminous clouds (noctilucent clouds) |
| 2 thunderclouds | 23 the ionosphere |
| 3 the highest mountain, Mount Everest [8,882m] | 24 range of research rockets |
| 4 rainbow | 25 shooting star |
| 5 jet stream level | 26 short wave (high frequency) |
| 6 zero level (inversion of vertical air movement) | 27 E-layer (Heaviside-Kennelly Layer) |
| 7 ground layer (surface boundary layer) | 28 F1-layer |
| 8 the stratosphere | 29 F2-layer |
| 9 tropopause | 30 aurora (polar light) |
| 10 separating layer (layer of weaker air movement) | 31 the exosphere |
| 11 atomic explosion | 32 atom layer |
| 12 hydrogen bomb explosion | 33 range of satellite sounding |
| 13 ozone layer | 34 fringe region |
| 14 range of sound wave propagation | 35 altitude scale |
| 15 stratosphere aircraft | 36 temperature scale (thermometric scale) |
| 16 manned balloon | 37 temperature graph |
| 17 sounding balloon | |
| 18 meteor | |
| 19 upper limit of ozone layer | |
| 20 zero level | |
| 21 eruption of Krakatoa | |

1-19 clouds and weather

1-4 clouds found in homogeneous air masses

- 1 cumulus (woolpack cloud, cumulus humilis, fair-weather cumulus), a heap cloud (flat-based heap cloud)
- 2 cumulus congestus, a heap cloud with more marked vertical development
- 3 stratocumulus, a layer cloud (sheet cloud) arranged in heavy masses
- 4 stratus (high fog), a thick, uniform layer cloud (sheet cloud)

5-12 clouds found at warm fronts

- 5 warm front
- 6 cirrus, a high to very high ice-crystal cloud, thin and assuming a wide variety of forms
- 7 cirrostratus, an ice-crystal cloud veil
- 8 altostratus, a layer cloud (sheet cloud) of medium height
- 9 altostratus praecipitans, a layer cloud (sheet cloud) with precipitation in its upper parts
- 10 nimbostratus, a rain cloud, a layer cloud (sheet cloud) of very large vertical extent which produces precipitation (rain or snow)
- 11 fractostratus, a ragged cloud occurring beneath nimbostratus
- 12 fractocumulus, a ragged cloud like 11 but with billowing shapes

13-17 clouds at cold fronts

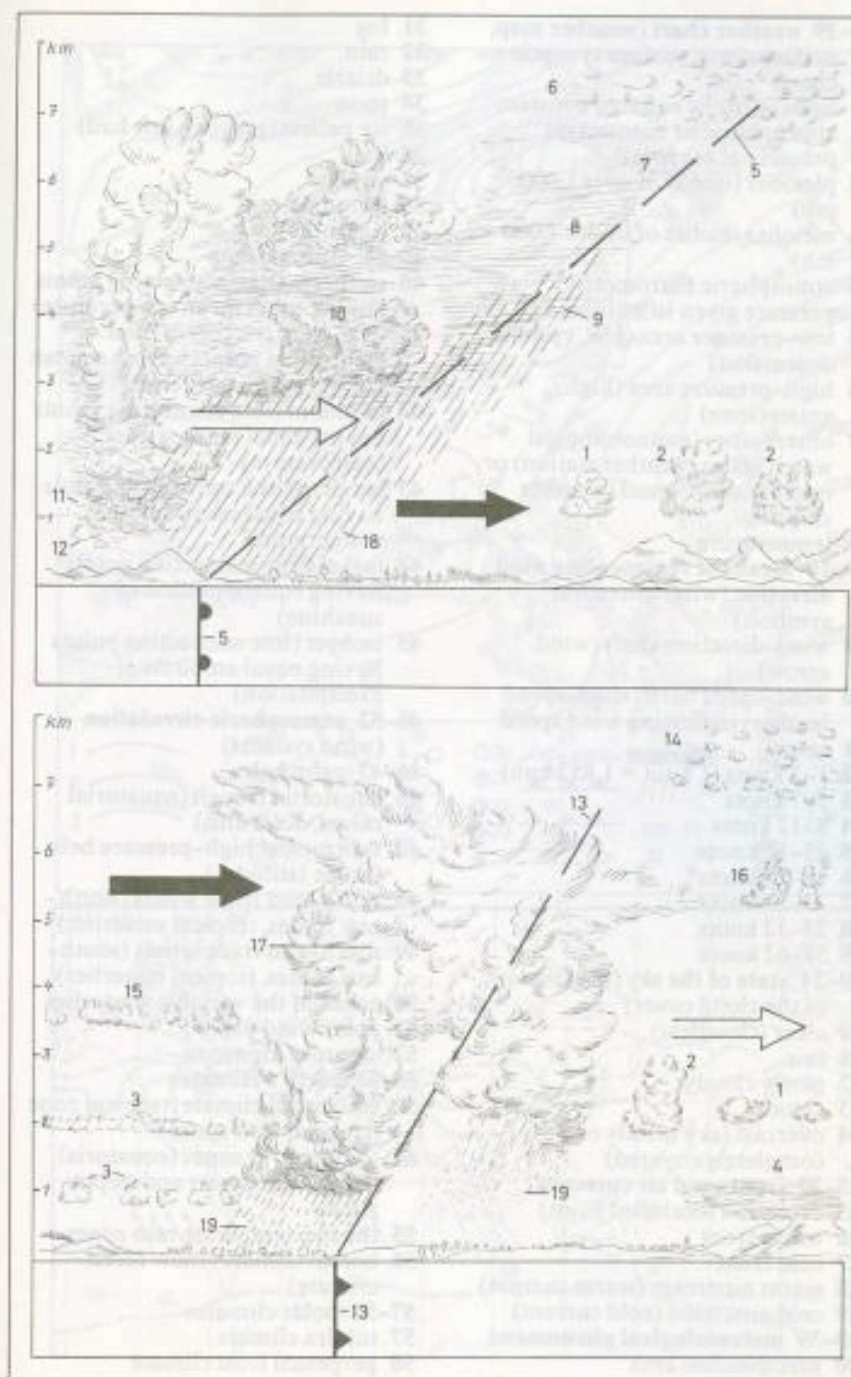
- 13 cold front
- 14 cirrocumulus, thin fleecy cloud in the form of globular masses; covering the sky; mackerel sky
- 15 altocumulus, a cloud in the form of large globular masses
- 16 altocumulus castellanus and altocumulus floccus, species of 15
- 17 cumulonimbus, a heap cloud of very large vertical extent, to be classified under 1-4 in the case of tropical storms

18-19 types of precipitation

- 18 steady rain or snow covering a large area, precipitation of uniform intensity
- 19 shower, scattered precipitation

black arrow = cold air

white arrow = warm air



9 Meteorology II and Climatology

1-39 weather chart (weather map, surface chart, surface synoptic chart)

1 isobar (line of equal or constant atmospheric or barometric pressure at sea level)

2 pleiobar (isobar of over 1,000 mb)

3 meiobar (isobar of under 1,000 mb)

4 atmospheric (barometric) pressure given in millibars

5 low-pressure area (low, cyclone, depression)

6 high-pressure area (high, anticyclone)

7 observatory (meteorological watch office, weather station) or ocean station vessel (weather ship)

8 temperature

9-19 means of representing wind direction (wind-direction symbols)

9 wind-direction shaft (wind arrow)

10 wind-speed barb (wind-speed feather) indicating wind speed

11 calm

12 1-2 knots (1 knot = 1.852 kph)

13 3-7 knots

14 8-12 knots

15 13-17 knots

16 18-22 knots

17 23-27 knots

18 28-32 knots

19 58-62 knots

20-24 state of the sky (distribution of the cloud cover)

20 clear (cloudless)

21 fair

22 partly cloudy

23 cloudy

24 overcast (sky mostly or completely covered)

25-29 fronts and air currents

25 occlusion (occluded front)

26 warm front

27 cold front

28 warm airstream (warm current)

29 cold airstream (cold current)

30-39 meteorological phenomena

30 precipitation area

31 fog

32 rain

33 drizzle

34 snow

35 ice pellets (graupel, soft hail)

36 hail

37 shower

38 thunderstorm

39 lightning

40-58 climatic map

40 isotherm (line connecting points having equal mean temperature)

41 0 °C (zero) isotherm (line connecting points having a mean annual temperature of 0 °C)

42 isocheim (line connecting points having equal mean winter temperature)

43 isother (line connecting points having equal mean summer temperature)

44 isohel (line connecting points having equal duration of sunshine)

45 isohyet (line connecting points having equal amounts of precipitation)

46-52 atmospheric circulation (wind systems)

46-47 calm belts

46 equatorial trough (equatorial calms, doldrums)

47 subtropical high-pressure belts (horse latitudes)

48 north-east trade winds (north-east trades, tropical easterlies)

49 south-east trade winds (south-east trades, tropical easterlies)

50 zones of the variable westerlies

51 polar wind zones

52 summer monsoon

53-58 earth's climates

53 equatorial climate: tropical zone (tropical rain zone)

54 the two arid zones (equatorial dry zones): desert and steppe zones

55 the two temperate rain zones

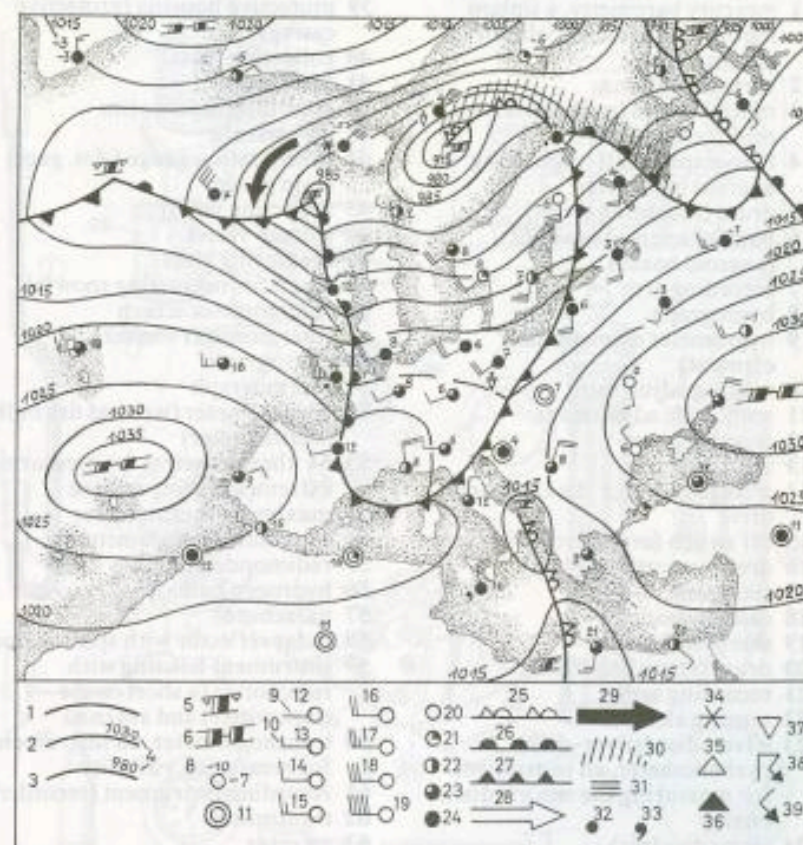
56 boreal climate (snow forest climate)

57-58 polar climates

57 tundra climate

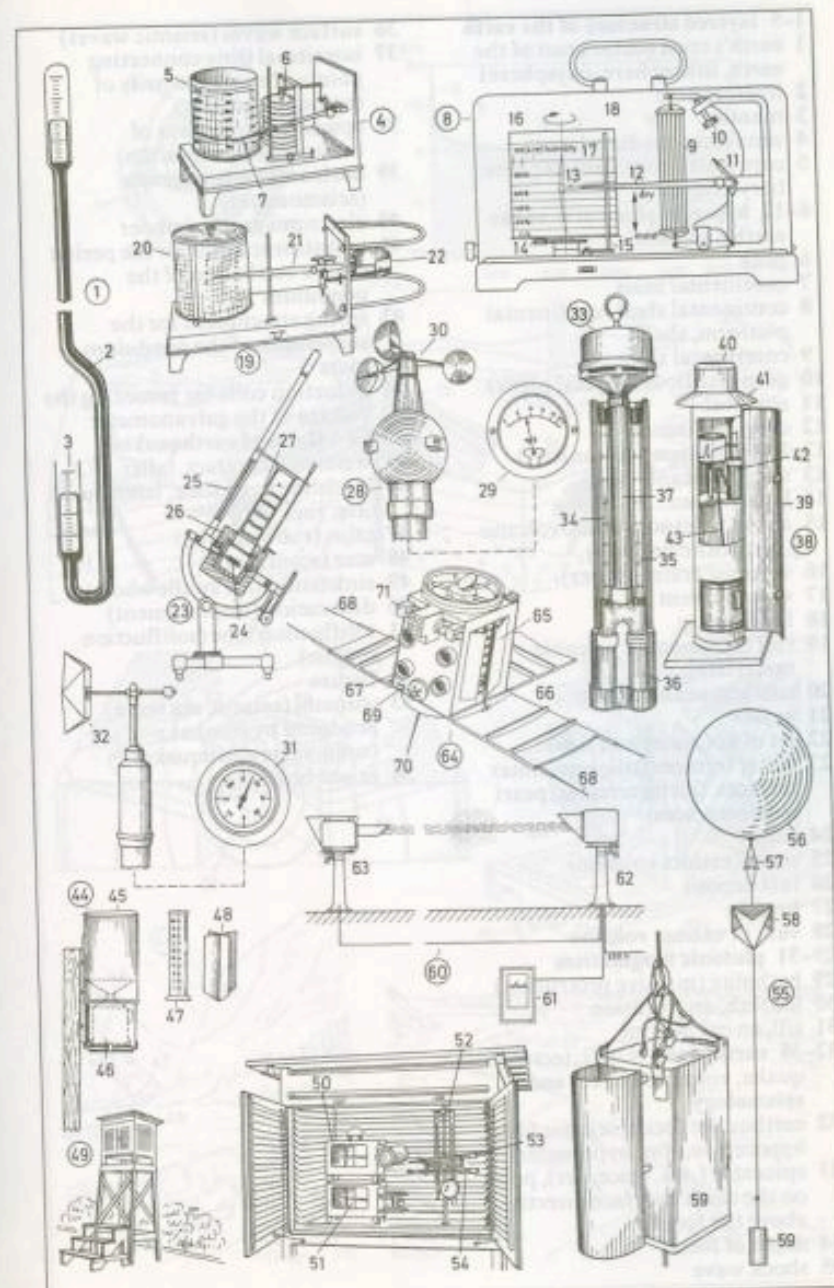
58 perpetual frost climate

Meteorology II and Climatology 9



10 Meteorological Instruments

- 1 mercury barometer, a siphon barometer, a liquid-column barometer
- 2 mercury column
- 3 millibar scale (millimetre, *Am.* millimetre, scale)
- 4 barograph, a self-registering aneroid barometer
- 5 drum (recording drum)
- 6 bank of aneroid capsules (aneroid boxes)
- 7 recording arm
- 8 hygrograph
- 9 hygrometer element (hair element)
- 10 reading adjustment
- 11 amplitude adjustment
- 12 recording arm
- 13 recording pen
- 14 change gears for the clockwork drive
- 15 off switch for the recording arm
- 16 drum (recording drum)
- 17 time scale
- 18 case (housing)
- 19 thermograph
- 20 drum (recording drum)
- 21 recording arm
- 22 sensing element
- 23 silver-disc (silver-disk) pyrheliometer, an instrument for measuring the sun's radiant energy
- 24 silver disc (disk)
- 25 thermometer
- 26 wooden insulating casing
- 27 tube with diaphragm (diaphragmed tube)
- 28 wind gauge (*Am.* gage) (anemometer)
- 29 wind-speed indicator (wind-speed meter)
- 30 cross arms with hemispherical cups
- 31 wind-direction indicator
- 32 wind vane
- 33 aspiration psychrometer
- 34 dry bulb thermometer
- 35 wet bulb thermometer
- 36 solar radiation shielding
- 37 suction tube
- 38 recording rain gauge (*Am.* gage)
- 39 protective housing (protective casing)
- 40 collecting vessel
- 41 rain cover
- 42 recording mechanism
- 43 siphon tube
- 44 precipitation gauge (*Am.* gage) (rain gauge)
- 45 collecting vessel
- 46 storage vessel
- 47 measuring glass
- 48 insert for measuring snowfall
- 49 thermometer screen (thermometer shelter)
- 50 hygrograph
- 51 thermograph
- 52 psychrometer (wet and dry bulb thermometer)
- 53-54 thermometers for measuring extremes of temperature
- 53 maximum thermometer
- 54 minimum thermometer
- 55 radiosonde assembly
- 56 hydrogen balloon
- 57 parachute
- 58 radar reflector with spacing lines
- 59 instrument housing with radiosonde (a short-wave transmitter) and antenna
- 60 transmissometer, an instrument for measuring visibility
- 61 recording instrument (recorder)
- 62 transmitter
- 63 receiver
- 64 weather satellite (ITOS satellite)
- 65 temperature regulation flaps
- 66 solar panel
- 67 television camera
- 68 antenna
- 69 solar sensor (sun sensor)
- 70 telemetry antenna
- 71 radiometer



1-5 layered structure of the earth

- 1 earth's crust (outer crust of the earth, lithosphere, oxysphere)
- 2 hydrosphere
- 3 mantle
- 4 sima (intermediate layer)
- 5 core (earth core, centrosphere, barysphere)

6-12 hypsographic curve of the earth's surface

- 6 peak
- 7 continental mass
- 8 continental shelf (continental platform, shelf)
- 9 continental slope
- 10 deep-sea floor (abyssal plane)
- 11 sea level
- 12 deep-sea trench

13-28 volcanism (vulcanicity)

- 13 shield volcano
- 14 lava plateau
- 15 active volcano, a stratovolcano (composite volcano)
- 16 volcanic crater (crater)
- 17 volcanic vent
- 18 lava stream
- 19 tuff (fragmented volcanic material)
- 20 subterranean volcano
- 21 geyser
- 22 jet of hot water and steam
- 23 sinter terraces (siliceous sinter terraces, fluorite terraces, pearl sinter terraces)
- 24 cone
- 25 maar (extinct volcano)
- 26 tuff deposit
- 27 breccia
- 28 vent of extinct volcano

29-31 plutonic magmatism

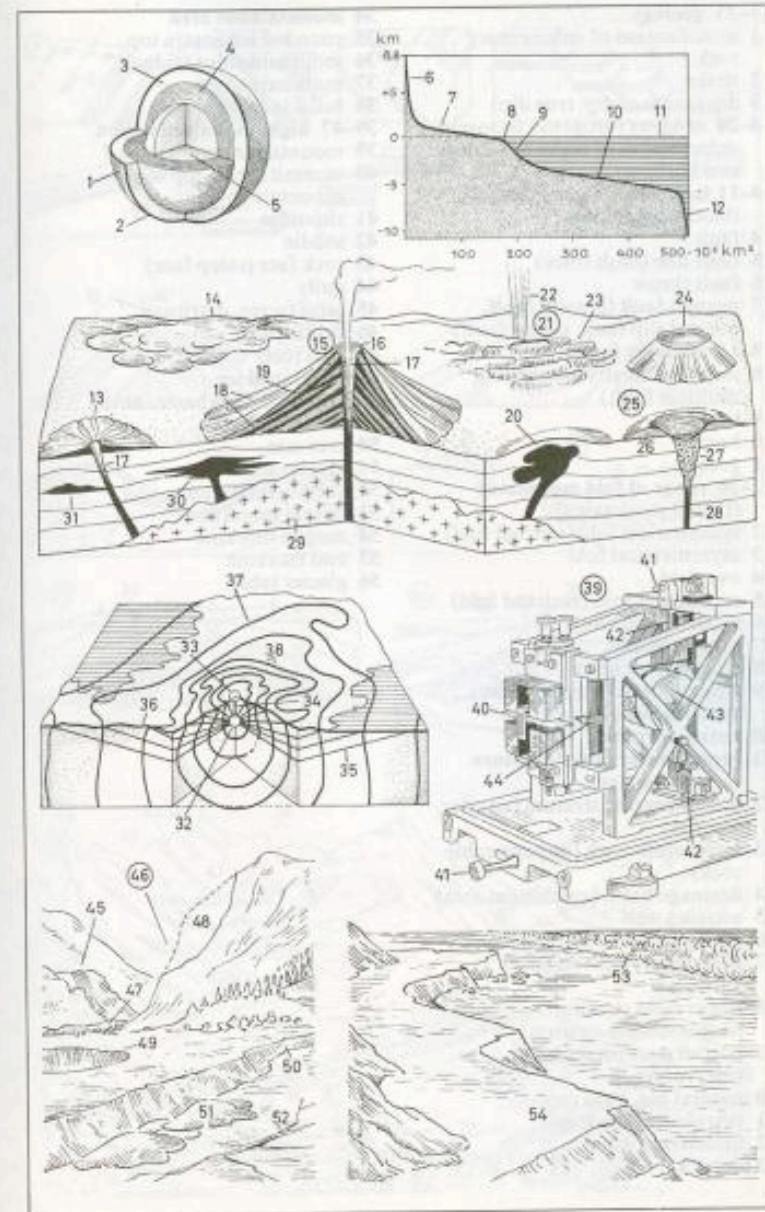
- 29 batholite (massive protrusion)
- 30 lacolith, an intrusion
- 31 sill, an ore deposit

32-38 earthquake (kinds: tectonic quake, volcanic quake) and seismology

- 32 earthquake focus (seismic focus, hypocentre, *Am.* hypocenter)
- 33 epicentre (*Am.* epicenter), point on the earth's surface directly above the focus
- 34 depth of focus
- 35 shock wave

36 surface waves (seismic waves)

- 37 isoseismal (line connecting points of equal intensity of earthquake shock)
- 38 epicentral area (area of macroseismic vibration)
- 39 horizontal seismograph (seismometer)
- 40 electromagnetic damper
- 41 adjustment knob for the period of free oscillation of the pendulum
- 42 spring attachment for the suspension of the pendulum
- 43 mass
- 44 induction coils for recording the voltage of the galvanometer
- 45-54 effects of earthquakes
- 45 waterfall (catact, falls)
- 46 landslide (rockslide, landslip, *Am.* rock slip)
- 47 talus (rubble, scree)
- 48 scar (scaur, scaw)
- 49 sink (sinkhole, swallowhole)
- 50 dislocation (displacement)
- 51 solifluction lobe (solifluction tongue)
- 52 fissure
- 53 tsunami (seismic sea wave) produced by seaquake (submarine earthquake)
- 54 raised beach

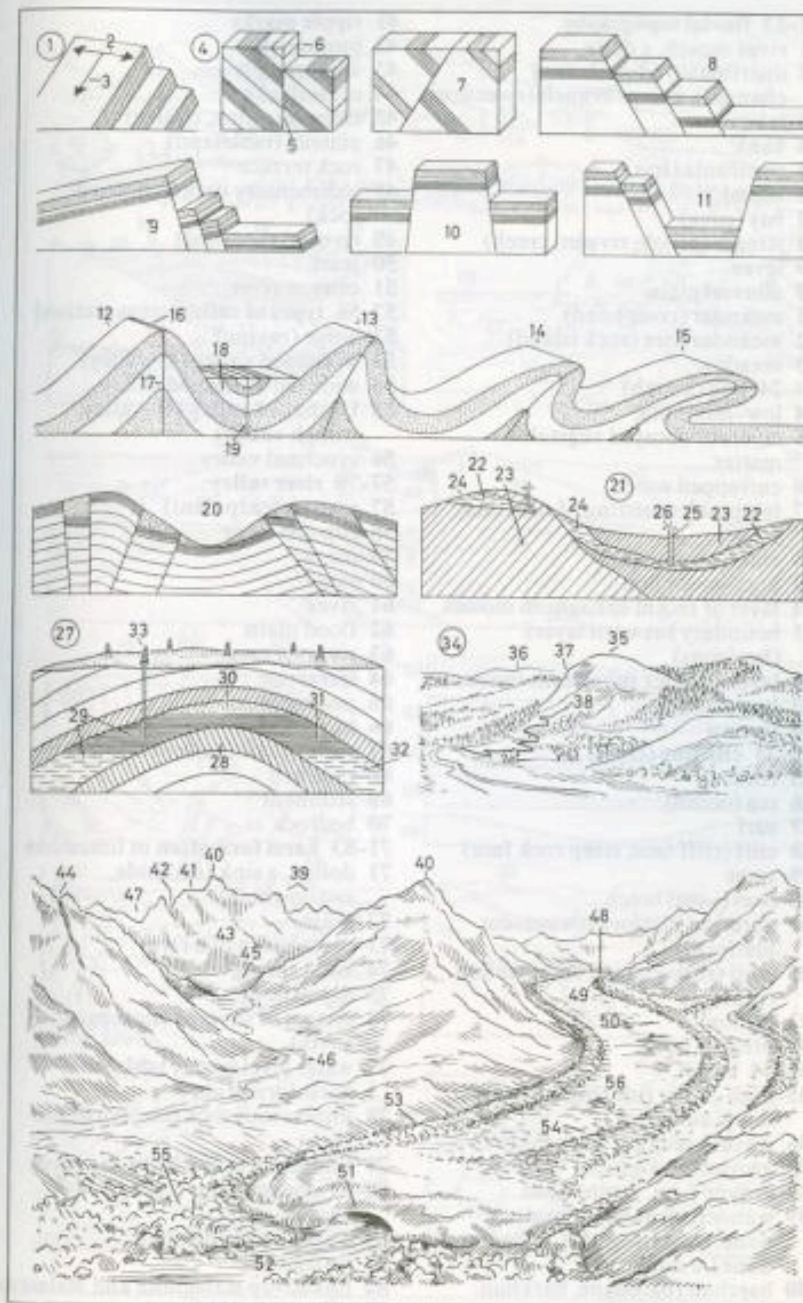


1-33 geology

- 1 stratification of sedimentary rock
- 2 strike
- 3 dip (angle of dip, true dip)
- 4-20 orogeny (orogenesis, tectogenesis, deformation of rocks by folding and faulting)
- 4-11 fault-block mountains (block mountains)
- 4 fault
- 5 fault line (fault trace)
- 6 fault throw
- 7 normal fault (gravity fault, normal slip fault, slump fault)
- 8-11 complex faults
- 8 step fault (distributive fault, multiple fault)
- 9 tilt block
- 10 horst
- 11 graben
- 12-20 range of fold mountains (folded mountains)
- 12 symmetrical fold (normal fold)
- 13 asymmetrical fold
- 14 overfold
- 15 recumbent fold (reclined fold)
- 16 saddle (anticline)
- 17 anticlinal axis
- 18 trough (syncline)
- 19 trough surface (trough plane, synclinal axis)
- 20 anticlinorium
- 21 groundwater under pressure (artesian water)
- 22 water-bearing stratum (aquifer, aquafer)
- 23 impervious rock (impermeable rock)
- 24 drainage basin (catchment area)
- 25 artesian well
- 26 rising water, an artesian spring
- 27 petroleum reservoir in an anticline
- 28 impervious stratum (impermeable stratum)
- 29 porous stratum acting as reservoir rock
- 30 natural gas, a gas cap
- 31 petroleum (crude oil)
- 32 underlying water
- 33 derrick

34 mountainous area

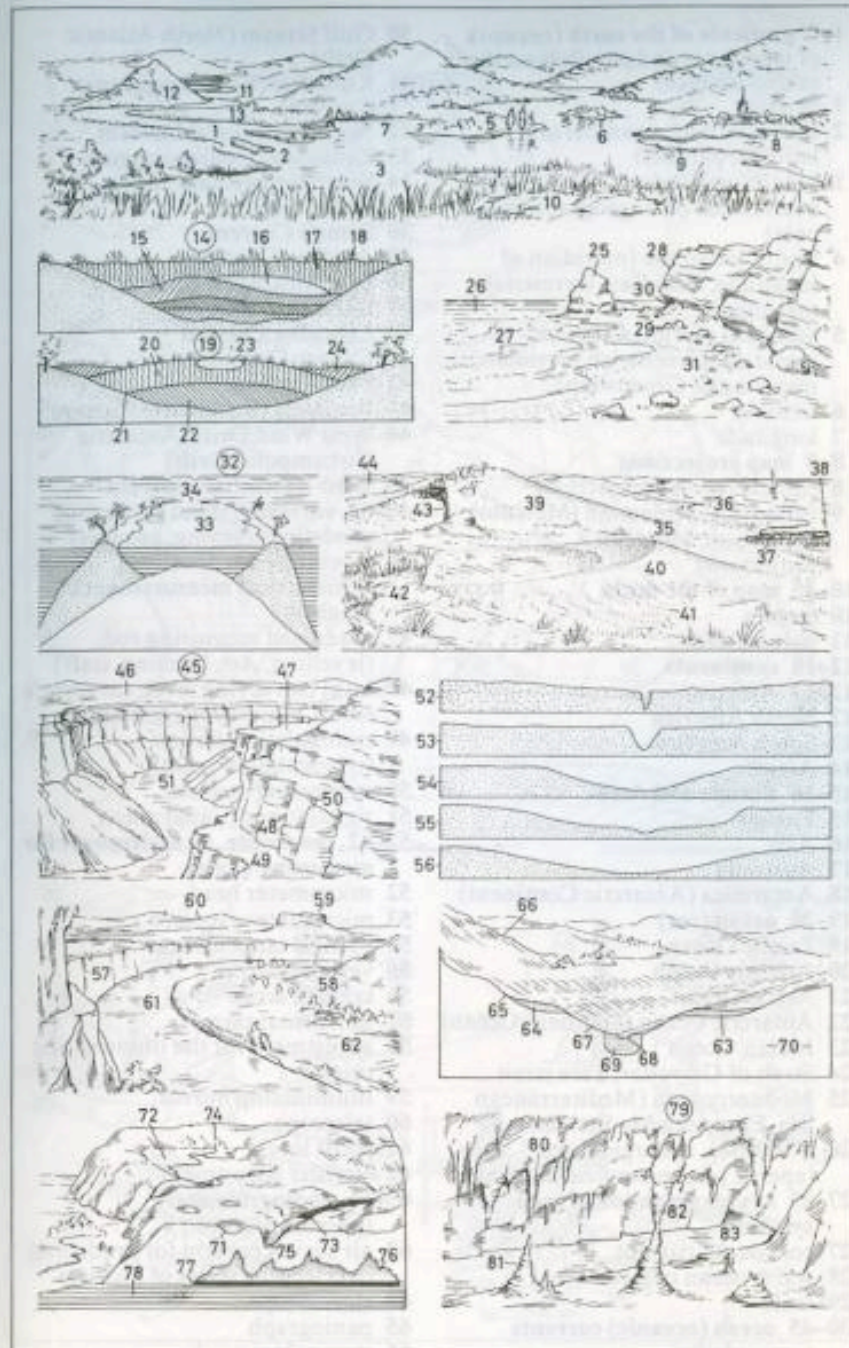
- 35 rounded mountain top
- 36 mountain ridge (ridge)
- 37 mountain slope
- 38 hillside spring
- 39-47 high-mountain region
- 39 mountain range, a massif
- 40 summit (peak, top of the mountain)
- 41 shoulder
- 42 saddle
- 43 rock face (steep face)
- 44 gully
- 45 talus (scree, detritus)
- 46 bridle path
- 47 pass (col)
- 48-56 glacial ice
- 48 firn field (firn basin, nevè)
- 49 valley glacier
- 50 crevasse
- 51 glacier snout
- 52 subglacial stream
- 53 lateral moraine
- 54 medial moraine
- 55 end moraine
- 56 glacier table



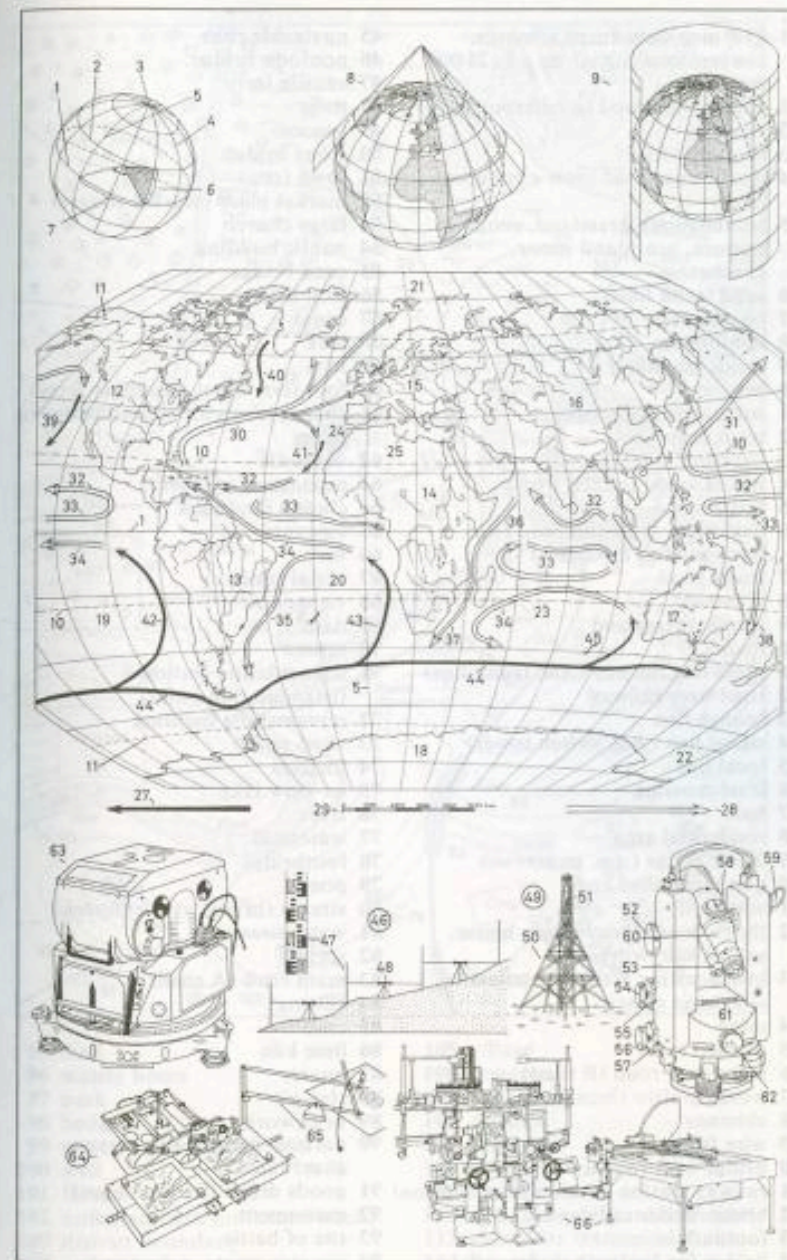
1-13 fluvial topography

- 1 river mouth, a delta
- 2 distributary (distributary channel), a river branch (river arm)
- 3 lake
- 4 bank
- 5 peninsula (spit)
- 6 island
- 7 bay (cove)
- 8 stream (brook, rivulet, creek)
- 9 levee
- 10 alluvial plain
- 11 meander (river bend)
- 12 meander core (rock island)
- 13 meadow
- 14-24 bog (marsh)
- 14 low-moor bog
- 15 layers of decayed vegetable matter
- 16 entrapped water
- 17 fen peat [consisting of rush and sedge]
- 18 alder-swamp peat
- 19 high-moor bog
- 20 layer of recent sphagnum mosses
- 21 boundary between layers (horizons)
- 22 layer of older sphagnum mosses
- 23 bog pool
- 24 swamp
- 25-31 cliffline (cliffs)
- 25 rock
- 26 sea (ocean)
- 27 surf
- 28 cliff (cliff face, steep rock face)
- 29 scree
- 30 [wave-cut] notch
- 31 abrasion platform (wave-cut platform)
- 32 atoll (ring-shaped coral reef), a coral reef
- 33 lagoon
- 34 breach (hole)
- 35-44 beach
- 35 high-water line (high-water mark, tidemark)
- 36 waves breaking on the shore
- 37 groyne (Am. groin)
- 38 groyne (Am. groin) head
- 39 wandering dune (migratory dune, travelling, Am. traveling dune), a dune
- 40 barchan (barchane, barkhan, crescentic dune)

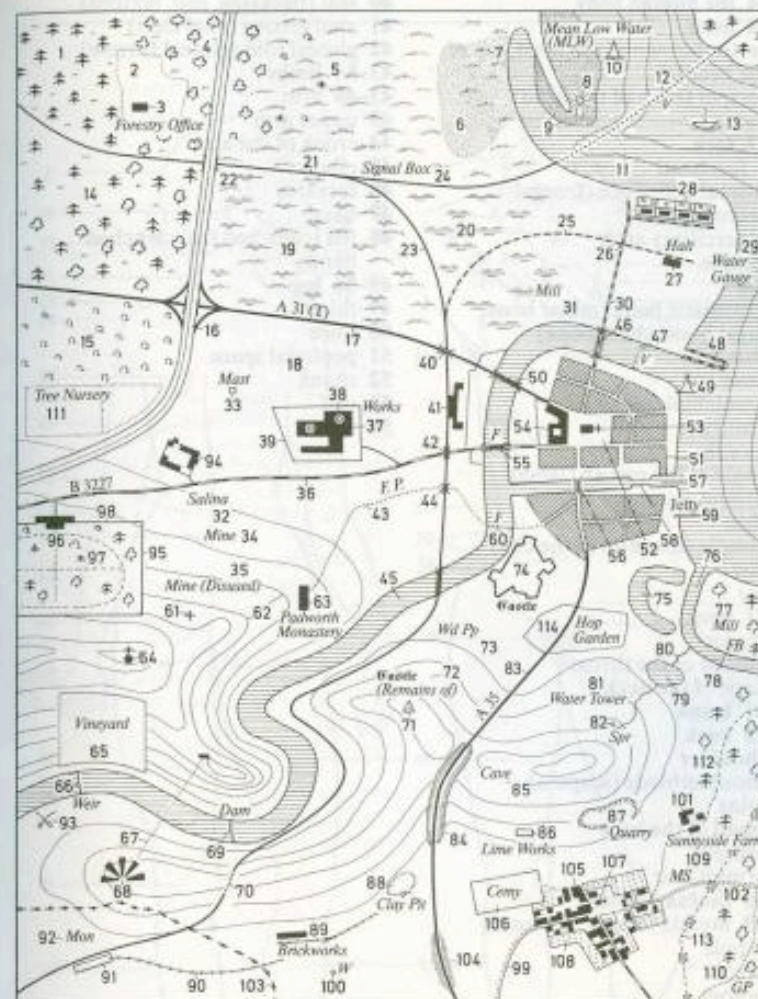
- 41 ripple marks
- 42 hummock
- 43 wind cripple
- 44 coastal lake
- 45 canyon (cañon, coulee)
- 46 plateau (tableland)
- 47 rock terrace
- 48 sedimentary rock (stratified rock)
- 49 river terrace (bed)
- 50 joint
- 51 canyon river
- 52-56 types of valley [cross section]
- 52 gorge (ravine)
- 53 V-shaped valley (V-valley)
- 54 widened V-shaped valley
- 55 U-shaped valley (U-valley, trough valley)
- 56 synclinal valley
- 57-70 river valley
- 57 scarp (escarpment)
- 58 slip-off slope
- 59 mesa
- 60 ridge
- 61 river
- 62 flood plain
- 63 river terrace
- 64 terracette
- 65 pediment
- 66 hill
- 67 valley floor (valley bottom)
- 68 riverbed
- 69 sediment
- 70 bedrock
- 71-83 karst formation in limestone
- 71 dolina, a sink (sinkhole, swallowhole)
- 72 polje
- 73 percolation of a river
- 74 karst spring
- 75 dry valley
- 76 system of caverns (system of caves)
- 77 water level (water table) in a karst formation
- 78 impervious rock (impermeable rock)
- 79 limestone cave (dripstone cave)
- 80-81 speleothems (cave formations)
- 80 stalactite (dripstone)
- 81 stalagmite
- 82 linked-up stalagmite and stalactite
- 83 subterranean river



- 1-7 **graticule of the earth** (network of meridians and parallels on the earth's surface)
- 1 equator
 - 2 line of latitude (parallel of latitude, parallel)
 - 3 pole (North Pole or South Pole), a terrestrial pole (geographical pole)
 - 4 line of longitude (meridian of longitude, meridian, terrestrial meridian)
 - 5 Standard meridian (Prime meridian, Greenwich meridian, meridian of Greenwich)
 - 6 latitude
 - 7 longitude
- 8-9 **map projections**
- 8 conical (conic) projection
 - 9 cylindrical projection (Mercator projection, Mercator's projection)
- 10-45 **map of the world**
- 10 tropics
 - 11 polar circles
 - 12-18 **continents**
 - 12-13 America
 - 12 North America
 - 13 South America
 - 14 Africa
 - 15-16 Europe and Asia
 - 15 Europe
 - 16 Asia
 - 17 Australia
 - 18 Antarctica (Antarctic Continent)
 - 19-26 **ocean (sea)**
 - 19 Pacific Ocean
 - 20 Atlantic Ocean
 - 21 Arctic Ocean
 - 22 Antarctic Ocean (Southern Ocean)
 - 23 Indian Ocean
 - 24 Strait of Gibraltar, a sea strait
 - 25 Mediterranean (Mediterranean Sea, European Mediterranean)
 - 26 North Sea, a marginal sea (epiric sea, epicontinental sea)
 - 27-29 **key (explanation of map symbols)**
 - 27 cold ocean current
 - 28 warm ocean current
 - 29 scale
 - 30-45 **ocean (oceanic) currents (ocean drifts)**
 - 30 Gulf Stream (North Atlantic Drift)
 - 31 Kuroshio (Kuro Siwo, Japan Current)
 - 32 North Equatorial Current
 - 33 Equatorial Countercurrent
 - 34 South Equatorial Current
 - 35 Brazil Current
 - 36 Somali Current
 - 37 Agulhas Current
 - 38 East Australian Current
 - 39 California Current
 - 40 Labrador Current
 - 41 Canary Current
 - 42 Peru Current
 - 43 Benguela (Benguella) Current
 - 44 West Wind Drift (Antarctic Circumpolar Drift)
 - 45 West Australian Current
 - 46-62 **surveying** (land surveying, geodetic surveying, geodesy)
 - 46 levelling (*Am.* leveling) (geometrical measurement of height)
 - 47 graduated measuring rod (levelling, *Am.* leveling, staff)
 - 48 level (surveying level, surveyor's level), a surveyor's telescope
 - 49 triangulation station (triangulation point)
 - 50 supporting scaffold
 - 51 signal tower (signal mast)
 - 52-62 **theodolite, an instrument for measuring angles**
 - 52 micrometer head
 - 53 micrometer eyepiece
 - 54 vertical tangent screw
 - 55 vertical clamp
 - 56 tangent screw
 - 57 horizontal clamp
 - 58 adjustment for the illuminating mirror
 - 59 illuminating mirror
 - 60 telescope
 - 61 spirit level
 - 62 circular adjustment
 - 63-66 **photogrammetry** (phototopography)
 - 63 air survey camera for producing overlapping series of pictures
 - 64 stereoscope
 - 65 pantograph
 - 66 stereoplanigraph



- 1-114 map signs (map symbols, conventional signs) on a 1:25 000 map
- | | |
|-------------------------------------------------------------------|------------------------------------------------|
| 1 coniferous wood (coniferous trees) | 45 navigable river |
| 2 clearing | 46 pontoon bridge |
| 3 forestry office | 47 vehicle ferry |
| 4 deciduous wood (non-coniferous trees) | 48 mole |
| 5 heath (rough grassland, rough pasture, heath and moor, bracken) | 49 beacon |
| 6 sand (sand hills) | 50 stone bridge |
| 7 beach grass | 51 town (city) |
| 8 lighthouse | 52 market place (market square) |
| 9 mean low water | 53 large church |
| 10 beacon | 54 public building |
| 11 submarine contours | 55 road bridge |
| 12 train ferry | 56 iron bridge |
| 13 lightship | 57 canal |
| 14 mixed wood (mixed trees) | 58 lock |
| 15 brushwood | 59 jetty |
| 16 motorway with slip road (Am. freeway with on-ramp) | 60 foot ferry (foot passenger ferry) |
| 17 trunk road | 61 chapel (church) without tower or spire |
| 18 grassland | 62 contours |
| 19 marshy grassland | 63 monastery (convent) |
| 20 marsh | 64 church landmark |
| 21 main line railway (Am. trunk line) | 65 vineyard |
| 22 road over railway | 66 weir |
| 23 branch line | 67 aerial ropeway |
| 24 signal box (Am. switch tower) | 68 view point |
| 25 local line | 69 dam |
| 26 level crossing | 70 tunnel |
| 27 halt | 71 triangulation station (triangulation point) |
| 28 residential area | 72 remains of a building |
| 29 water gauge (Am. gage) | 73 wind pump |
| 30 good, metalled road | 74 fortress |
| 31 windmill | 75 ox-bow lake |
| 32 thorn house (graduation house, salina, salt-works) | 76 river |
| 33 broadcasting station (wireless or television mast) | 77 watermill |
| 34 mine | 78 footbridge |
| 35 disused mine | 79 pond |
| 36 secondary road (B road) | 80 stream (brook, rivulet, creek) |
| 37 works | 81 water tower |
| 38 chimney | 82 spring |
| 39 wire fence | 83 main road (A road) |
| 40 bridge over railway | 84 cutting |
| 41 railway station (Am. railroad station) | 85 cave |
| 42 bridge under railway | 86 lime kiln |
| 43 footpath | 87 quarry |
| 44 bridge for footpath under railway | 88 clay pit |
| | 89 brickworks |
| | 90 narrow-gauge (Am. narrow gage) railway |
| | 91 goods depot (freight depot) |
| | 92 monument |
| | 93 site of battle |
| | 94 country estate, a demesne |



- | | |
|------------------------------------|--------------------------------------|
| 95 wall | 105 village |
| 96 stately home | 106 cemetery |
| 97 park | 107 church (chapel) with spire |
| 98 hedge | 108 orchard |
| 99 poor or unmetalled road | 109 milestone |
| 100 well | 110 guide post |
| 101 farm | 111 tree nursery |
| 102 unfenced path (unfenced track) | 112 ride (aisle, lane, section line) |
| 103 district boundary | 113 electricity transmission line |
| 104 embankment | 114 hop garden |