

Someone Might Notice a Thick Puff of Smoke (10)

Year: 1993
Level: First Year, Spring Semester 2
Unit: 10164 Foundation Studies 4
Duration: 9 days
Dates: October 11, 25, 28, November 1, 8, 11, 15, 18, 22

Origin

This final project of the year was conceived to take place beyond the confines of the studio; one reason for this was expedient, as the studio would normally require to be vacated early to set up the graduation exhibition; so working away from the studio allowed us to continue on rather than have to terminate the project prematurely. Two versions of a common topic: 'surveillance of a site' were created, participants could work with one or the other or between the two; the second version 'Waiting, Watching, Working' was prepared by Rhett Brewer.

Premise

The title: 'Someone might notice a thick puff of smoke (10)' suggested a ten letter cryptic crossword clue, which indeed it was conceived as. The answer to the clue (undisclosed): 'camouflage' linked back to the etymology of the word in reference to ordnance or explosives generating smoke, to cover troop movements (*camouflet*: whiff of smoke in the face), anagrammatic clues were also fed into the cryptic mix: 'Mulgoa Café', 'Ace Gum Loaf' etc; The title also alluded to the adage 'no smoke without fire'; where remaining alert and noticing subtle shifts in the appearance of things and circumstance can be beneficial: being observant: gaining a fuller understanding of 'what's-going-on', as an 'early warning system', sharpening ones perceptiveness (as a possible enhancement of aesthetic capability: in noting and noticing).

The project stressed discretion and subtlety of engagement (with the site), doing things that would barely be noticed, as a minimal interference, that only the most observant might notice. All participants were required to act 'undercover' (remain undiscovered) in relation to what they were doing. Suspiciousness: 'acting on suspicion' was actively encouraged (to discover what-was-going-on). Any latent paranoia within the group was dispelled with the ruse of espionage actually being played out, (the surveillance and suspicion actual not fanciful, everybody was *suspect* to everybody else). Subtle attempts were made to establish contact with third parties whilst remaining undercover: the site becoming a 'drop off – pick up' location where 'transferences' and rendezvous could occur. Each participant had to compile a 'dossier' which documented all activities, interferences, comings and goings that the surveillance noticed. These dossiers were then displayed in a large marquee tent, site maps were issued locating all the sites chosen, any of which could then be visited as 'crime scenes', as all 'cover' was broken and the 'smoke screen' lifted (the dénouement staged as the 'opening' of the exhibition); everybody was 'outed'.

SOMEONE MIGHT NOTICE A THICK PUFF OF SMOKE (10)

.... is to select a mundane site, situated within an environment of such familiarity that it is essentially 'lost to sight' – as a situation of humdrum obviousness, memorable only for its forgetability and to then subtly alter certain aspects so as to draw attention towards it as a 'noticing' of something that is both odd and inexplicable. The intent, utilising the various tools of ingenuity, is to find means to 'mystify' mundanity through teasing out of the various threads of intrigue latent within its commonplace ordinance.

.... With a view to surveillance the chosen site should be conducive to monitoring. A 'trace history' of its visitation or habitation will need to be carefully documented. There are three 'obvious' domains:

- (1) Sites of transience or transit: tracks, paths, roads, corridors, stairways.
- (2) Sites of occupation: libraries, canteens, offices, bus stops, toilets, studios.
- (3) Sites of impediment or momentary delay: of entrance and exit, into and out of spaces: doorways, car parks, lifts, notice boards.

....for the purposes of the project it is necessary to maintain a clandestine relationship with the targeted site such that no suspicion should be aroused in relation to the process of

surveillance. During the initial stages nothing other than a 'close watch' be kept over the site and methods devised to document observable occurrences – the investigator acts on suspicion – all occurrences need therefore to be considered potentially 'suspicious', as sources of conjecture within an imaginary fictitious space.

....having gained a familiarity with the machinations (the comings and goings) of the site, the next thing is to consider ways in which the site can be subtly altered at a subliminal level that to all intents and purposes will remain unnoticed. The challenge here is to change the site in some way without anybody noticing. This minimal intervention should then little by little become more explicit, at least to a discerning eye, such that 'someone might notice something unusual.'

....it is at this point of engaged inquisitiveness (the lure of enticement) that communication can ensue with an unsuspecting audience caught in a state of intrigue as to what will happen next..... (the art of instalments). The anonymity of the investigation is paramount throughout this exercise, discovery (blowing ones cover) would necessitate abandonment of the chosen site and selection of an alternative 'venue'.

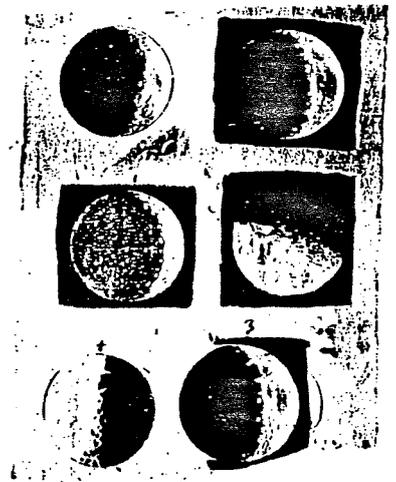
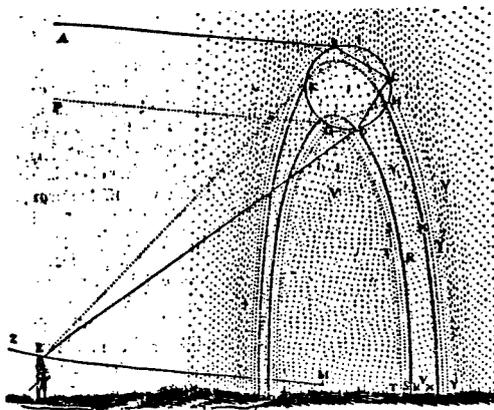
.... as sites of rendezvous, where items could be left, collected or exchanged in pursuit of the paradigm of espionage, the investigator as agent of intrigue intentionally 'smoke screens' the suspects through the deployment of decoys that operate complicitly with what is counterfeit, deceptive and deliberately misleading (as it were conditioned by camouflage).

....the substantive core of the project resides within the elaborated décor of the suspense it maintains, the success of which in part can be measured by the degree to which its intrigue imaginatively captures an audience – making an otherwise mundane experience memorable. It is only at the conclusion of the project, its dénouement, that the outcome of the surveillance is made wholly explicit – as a reportable case study with 'exhibits' appropriate to it.

WATCHING, WAITING AND WORKING.

A working supplement for
'Someone Might Notice a thick Puff of Smoke'

Foundation Studies
1993 - Final Project



RENE DESCARTES
1596-1650

Study of the Formation of a Rainbow

0637

DESCARTES, A SKILLED MATHEMATICIAN and scientific investigator, ingeniously combined two separate observations in this illustration to explain the formation of the rainbow's color spectrum. The circle represents a glass sphere that Descartes had filled with water and that for his analysis represented the gross magnification of a single raindrop. Standing at position E, with his back to the Sun, Descartes could see the color spectrum by looking the sphere at an elevation of 45° above the horizon line, ZEM. This sighting occurred along the axial line ED. The Sun's rays entered the sphere along the line AB; they were refracted internally along the lines BC and CD, and moved out of the sphere to become visible along the line DE.

When Descartes raised the water-filled sphere higher, the spectrum disappeared and then reappeared when the angle reached 51° above the horizontal. However, he noted that the order of spectral colors was reversed. At the 51° angle, represented by the dashed line EK, Descartes's geometrical analysis revealed that three internal refractions would have occurred within the sphere: the Sun's rays would have entered along the line FG then and would have been refracted along the lines GH, HI, and IK.

Descartes concluded that the third refraction within the sphere—or raindrop—was responsible for the reversal (as in a mirror image) of the order of the colors in the spectrum. This reversed rainbow, called a "secondary" rainbow, is occasionally visible above the primary rainbow. Because of the third refraction within the waterdrop, and the consequent additional absorption of light energy, the secondary rainbow always appears as a weaker or fainter spectrum.

Descartes's explanatory illustration is particularly impressive because of his skill in combining the observation of the natural phenomenon with the geometry of a "magnified" raindrop—the water-filled glass sphere.

GALILEO GALILEI
1564-1642

Six Phases of the Moon

0616

IN 1609 GALILEO LEARNED that a new optical instrument—a telescope—had been invented by H. Lippershey in Holland. Galileo, a whimsical gifted with considerable practical ability, immediately proceeded to construct a telescope of his own and with it began to record his observations of heavenly bodies. A year later, he published and distributed his observations in a series of newsletters called *Lettere Minime* (The Little Messages). These newsletters promised to reveal "great, unusual, & remarkable spectacles, opening those to the consideration of every man, and especially of philosophers and astronomers."

Galileo, who had some training in drawing and watercolor, made his own illustrations for the text. These drawings showed that the Moon was not a smooth sphere, as had been thought previously; its surface was marked by mountains, valleys, and craters, just like those found on Earth. By measuring the shadows of the Moon's mountains cast by the Sun's light, Galileo was able to calculate the heights of its mountains, which he showed to be comparable with those of Earth.

At this time, Galileo was relatively unknown outside the University of Padua, where he was professor of mathematics, but he also dealt with "natural philosophy" (the natural sciences). His personality—often skeptical and derisive toward other scientists—had earned him the dislike of his colleagues. Despite this, he was very popular with his students, and his lecture hall was the largest in the university.

LEONARDO DA VINCI
1452-1519

Rock Avalanche and Water Turbulence

1500

THIS IS ONE of a series of ten drawings illustrating an imagined "disaster": an avalanche of rock tumbling down a mountainside into a lake causes violent turbulence in the water, which is represented as short sections ending in spiral eddies.

Leonardo's water studies were begun in the early 1490s and continued into the second decade of the sixteenth century. All of them display his characteristic fascination with the complex forces of nature. Many of them, especially those of the "disaster" series, are observations visually expressing Leonardo's interest in and excitement about water in motion.

It is considered unlikely that, even with his extraordinary visual acuity, Leonardo could have actually seen the turbulent forms as he drew them. The visual imagination suggests free-form imaging within his own mind.

CHRISTOPH SCHWEINER
1575-1650

Observation of Sunspots

0611

SCHWEINER, A JEWISH PRISONER of Hebrew and mathematics at the University of Ingolstadt, claimed to have observed spots on the surface of the Sun in March 1610. Large sunspots had been observed previously but it was then believed that they were small satellite bodies orbiting around the Sun. Schweiner's announcement was unusual because he claimed that the spots were surface phenomena on the Sun itself.

In the illustration, Schweiner is seated at a table holding a device with which he plots the positions of the sunspots on a map of the Sun. The assistant adjusts the telescope and reads off the sunspot positions projected on an opaque screen. On the wall behind Schweiner hang three astronomical devices: an orrery, a sundial, and a world map. The engraver has signed his name on the stand at the lower left of the illustration: "David Wilsou, Sculpt."

Schweiner's claim to have been the first to identify the sunspots as surface phenomena on the face of the Sun was challenged by Galileo, who asserted that he had made the same observation two years before but had not announced it publicly because he had continued his observations to make sure that the spots were surface manifestations, and not small satellite moons, as originally believed. Despite Galileo's nothing challenge to Schweiner's claim of priority, the Vatican supported Schweiner.



Some observations and recordings made through drawing. Consider the advantages of the drawing over other recording media.

the Galapagos Islands

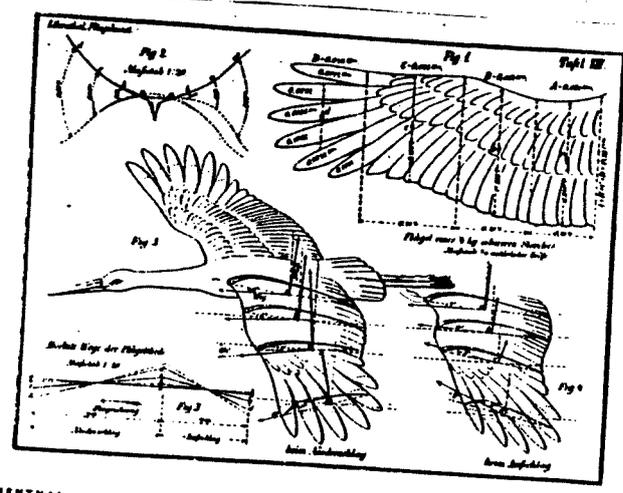
1899

became extremely important in Darwin's speculations on evolution. The drawing was made by J. Gould (see page 25).

According to prevailing nineteenth-century theories, each separate species would have been created on a separate island. Darwin gradually recognized that this was an untenable assumption. Instead, he suggested that the Galapagos finches were descendants of finches that had strayed from the South American mainland and, in the course of successive generations, had developed beaks better suited to the varieties of foods available in the different islands' meadows, bushes, trees, and grass. Heavier, larger beaks could more easily break the husks of larger seeds, and pointed beaks could more easily pierce the softer seeds and berries. Darwin concluded that variations among species must occur under the conditions necessary for survival.

During the voyage, Darwin classified at least 14 different species of finches in the Galapagos Islands—all different from the finches found on the South American coast, some 600 miles away. Distinctive differences among the island finches were visible especially in the sizes and shapes of their beaks. These birds are now called "Darwin's finches," in tribute to their contribution to the development of Darwin's theory of the evolution of species.

The records and speculations in the journal Darwin kept during his voyage reveal his considerable bewilderment about the scientific implications of the collected data. In 1846, writing home from Australia Darwin expressed his inability to comprehend the mysteries of creation: "Surely two distinct Creators must have been at work."



OTTO LILIENTHAL
1848-1896
Geometry of a Stork's Wing
1889

LILIENTHAL'S FASCINATION with the possibility of designing and constructing an aircraft for a human being began in his adolescent years and continued throughout his life. After serving in the German army during the Franco-Prussian War, he devoted himself to aeronautical studies and experimentation. In 1884 Lilienthal published his observations, calculations, and reports of his experimental flights in his book *The Science of Flight*.

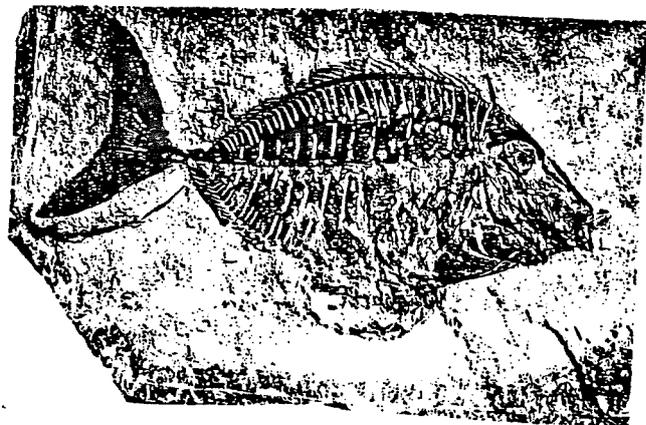
Lilienthal studied the anatomy and flight of large birds and applied his observations to the design of gliders. In Fig. 1, Lilienthal measures the dimensions of a stork's feathers layering. Figs. 2 and 3 diagram the limits of the upstrokes and downstrokes of the wings. Fig. 5 reveals the cross-section contours of the massed feather layers, at successive distances from the body of the stork. The shaded contours superimposed on the wings in Figs. 4 and 5 are especially significant. They reveal that Lilienthal had discovered that, in cross section, the top surface of an aircraft's wing should be longer than the bottom surface. If such a contour were supported by a strong internal structure, air would flow more swiftly over the top surface and therefore be less dense than the air flowing below the wing's lower surface. The differential in air velocity and density between the upper and lower surfaces of the wing is the means by which "lift" is achieved. This requirement is recognized as a basic design factor in aeronautics.

Lilienthal is credited with having founded the science of aeronautics. In *The Science of Flight* he commented that "it is not given to man to fly easily in the air like birds. But the device to do so gives us no peace." In 1891 Lilienthal made the first of his more than 2,000 glider flights. He was killed in 1896, when a glider he had fitted with a newly designed rudder crashed.

ERNST WEINHEIM
WEBER
1795-1878
AND
WILHELM WEBER
1804-1891
Wave Analysis
1825

THIS EXTRAORDINARY DRAWING by the brothers Weber, a physiologist and a physician, illustrates their observation of the phenomenon of wave interference and its effect on the wave's transmission. Drops of mercury were allowed to fall through a paper funnel into a circular dish of mercury. As each drop fell, the surface of the pool of mercury was disturbed and produced the pattern showing the wave's onset, its propagation to the sides of the dish, and the wave's reflections and interferences. By controlling the rate of fall of the drops, the Webers could draw this pattern of the crests and troughs of the wave. Of particular interest are the changes in the shape of the reflected wave front and the heart-shaped lobes near the right edge of the mercury pool. The brothers recognized this as a focal position. If, for example, the sides of the dish were mirrored, and a small, blinking light were to replace the mercury drops, the heart-shaped lobe would be the position where the reflected rays would merge; or, if an orchestra were to play in a circular concert hall, in the same location as the drop position, the audience situated at the focal position would experience an overwhelming sound intensity.

The painstaking observation this diagram required makes it one of the great achievements in scientific illustration. Such phenomena are now observed and recorded by sophisticated photographic apparatus in the study of architectural acoustics, sound reproduction, and aerodynamics.

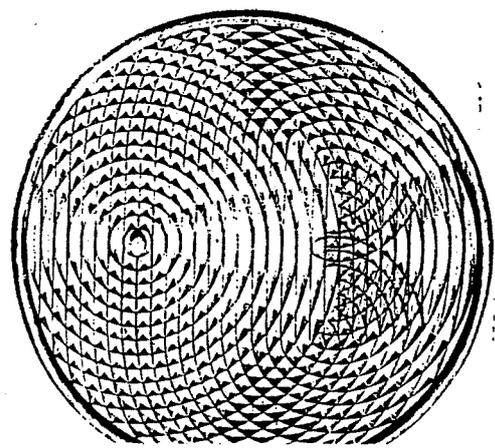


Fossil Fish
65,000,000-37,000,000 B.C.

THIS FISH, OF THE SPECIES *Zelussonia droni*, was trapped in a sudden, massive geological upheaval sometime during the Eocene era. It was a period of violent volcanic disruptions in the oceans and on land, marked by the recession and redistribution of large bodies of water and the emergence of the European continent.

Caught in a sudden volcanic eruption, the fish was impressed in a vein of lava. Its soft tissues disintegrated while the bones and outer skin engraved their shapes into the cooling stone of the Monte Bova region in Italy.

The Danish physician and anatomist Nicolaus Senné (1650-1686) was the first to begin a systematic study of fossils as an aspect of geology in his book *De Solida* (On Solids). It is now known that fluorine accumulates, from ground water, in the skeletons of living animals at a predictable rate. Measurement of the fluorine content of an animal's bones and the use of...



Self-Illustrating
Phenomena

Waiting from the moment that you receive this project to the moment that the exhibition concludes a part of your creative life will have unfolded. Time will have passed.

That time is an important inseparable part of the work itself. It is the fourth dimension of the work. Without it the work, or any work for that matter, could not exist. It takes time to consider the making of a work (sometimes a whole lifetime). It takes time to make a work (often the longer the better) and it takes time to look at a work.

The work itself is subject to change over time. This happens to a chalk drawing on a footpath and it happens to the Mona Lisa or the great pyramids - Nothing escapes time.

Question 1

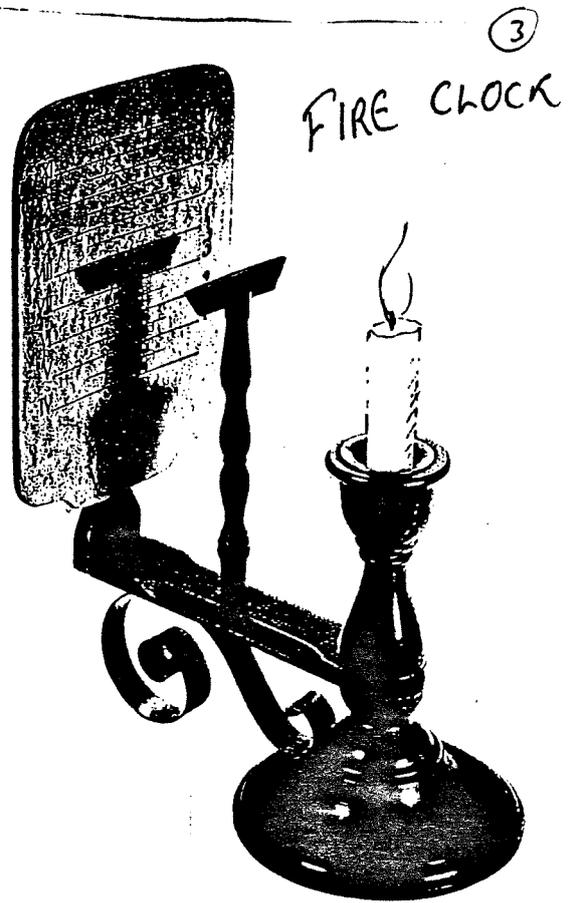
During this time ask yourself the question.. What is Time? What are the conclusions that have been reached by Philosophers, Theologians and Physicists?

If you want to pursue this do some research in the break on some of the following

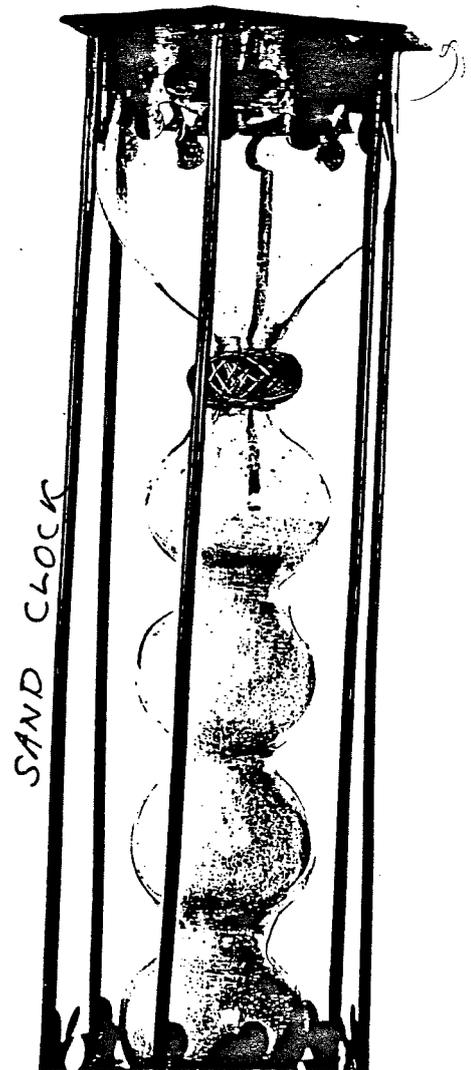
Lao Tzu, Saint Augustine, Plato, Thomas Aquinas, Isaac Newton, Albert Einstein and Stephen Hawking;

NO MARKS FOR REACHING A CONCLUSION - FULL MARKS FOR CURIOSITY.

WATER CLOCK



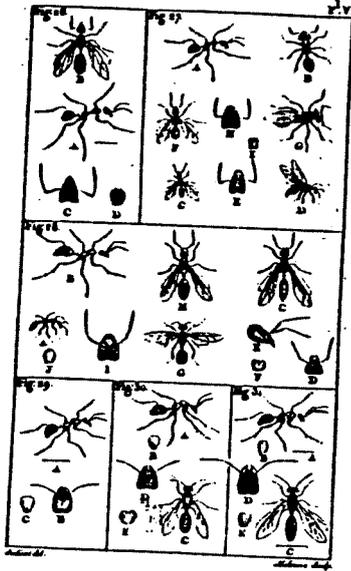
FIRE-CLOCKS/Catalogue/Candle- and Lamp-clocks 127



Note • larger copies of these drawmys will be made available on the F.S. notice board.

6

• This is the final project for F.S. it is to be taken and acted on at the Bendalong Camp and for the duration of the remaining semester -



PIERRE-ANDRE LATREILLE 1762-1833

Classification of Ants

802

Classification 48

THESE DRAWINGS ARE SOME EXAMPLES OF THE REMARKABLY CLEAR AND ELEGANT ILLUSTRATIONS MADE BY THE FRENCH ILLUSTRATOR OUDINOT FOR LATREILLE'S *Histoire Naturelle des Fourmis* (Natural History of Ants), published in 1802. In the preface to his book Latreille graciously acknowledges Oudinot's contribution, and the fact that he was on the staff of the Museum of Natural History. The book actually contains engravings made by Makower based on Oudinot's work.

Latreille was the founder and the first president of the French Entomological Society. He classified the ants he had studied in the north of France and later in the great collections of the Jardin des Plantes, in Paris. He identified approximately one hundred species, of which six are represented here. (Since Latreille's book was published, entomologists have identified more than 5,000 species.)

The three characteristic types of ants are represented in Fig. 27, at top right. A and B is the fresh worker; C and D is the male; F and G is the egg-laying queen. The male and the queen are shown (in D and G, respectively) as ready for the flight in which they will mate. H, I, and E represent parts of the head and thorax.

AFTER PEDANIUS DIOSCORIDES 50 C. A.D. 30

Thistle

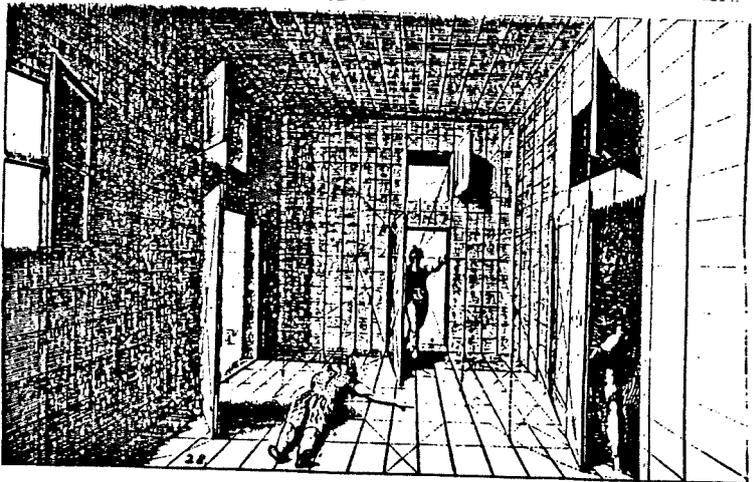
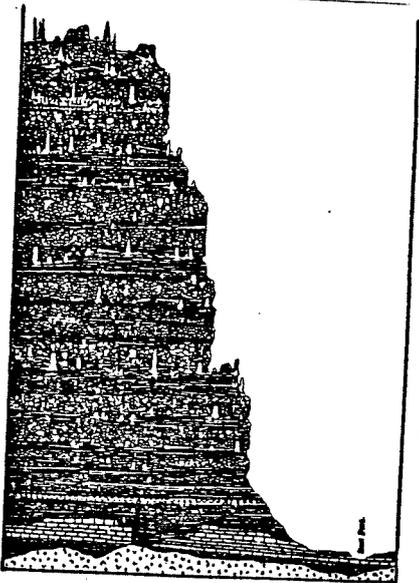
NINTH CENTURY

Observation 26

DIOSCORIDES WAS A GREEK PHYSICIAN WHO SERVED IN THE ROMAN ARMY UNDER THE EMPEROR NEPO. Like many early physicians, he depended on herbs and other substances for medicinal treatments. The thistle is one of approximately two plants and 1,000 minerals and animal derivatives for therapeutic use described by Dioscorides in his *De Materia Medica*, the first extensive pharmacopoeia. The manuscripts contained no illustrations, and later authors used Dioscorides's texts as a basis for illustrated copies of his work, which became the most important resource for botanical information in antiquity.

Dioscorides's manuscripts were preserved and copied by Arabian physicians in the ninth century. However, it was not until 1478 that the *De Materia Medica* was published in book form, translated from the original Greek into Latin.

Shown here in full bloom and afternoon in a ninth-century Arabic version of the book, the thistle, which could be used for medicinal purposes only in its astringent stage, was recommended for infusion and application as an eyewash, or to be drunk as a digestive tonic, a muscle relaxant, a lactation stimulant for nursing mothers, and a cure for jaundice.



YELLOWSTONE PARK, declared the first U.S. National Park in 1872, encompasses sections of Wyoming, Montana, and Idaho—areas of extraordinary interest to geologists. Holmes, a specimen in geological illustration, was sent by the U.S. Geological and Geographical Survey to Yellowstone to study the geology of Amethyst Mountain.

Like several others in the region, Amethyst Mountain was formed by a series of volcanic eruptions, the last one estimated to have occurred about 600,000 years ago. Amethyst is unique, however, because one of its sides was virtually sliced away like a piece of cake by glacial erosion, which exposed a multi-layered rock structure with numerous strata of fossiliferous.

In order to make this sketch, Holmes painstakingly hiked several miles from the exposed side of Amethyst and used a telescope to view the mountain as a whole. He delineated the layers of rock, fossil sites—standing upright and fallen—and fossil bushes. Extrapolating from his observations of its surface, Holmes even suggested what might lie behind the great vertical cut.

WILLIAM H. HOLMES 1846-1923

Geological Study of Amethyst Mountain

1879

Observation

IN 1604, DE VRIES, A DUTCH PAINTER, published *Perspectiva*, a book containing seventy-three drawings explaining his method of perspective geometry.

The vanishing point in this example is placed at the eye level of the figure of the visitor entering the room through the door in the far wall. The horizon line ("Orizontus") passes through the visitor's eye, so do the lines converging from the corners of the room. De Vries indicates the correspondence of the dimensional units ("1" through "6") on the square-tiled wall surface with the squares on the floor. The variable open and shut positions of the doors and window shutters are indicated by dashed arc lines.

The two vertical human figures are of equal height (approximately 67 units), as revealed by the receding grid lines. The supine figure on the floor appears elongated, even though it, too, occupies the same number of tiles. Shadows are convincingly represented by means of cross-hatching throughout the illustration.

As with many others in de Vries's book, this scene has a faintly disturbing undercurrent. Is the supine figure the victim of a crime? Is the man behind the door at the right the criminal? And is the visitor entering the room at the distant door—which is also at the vanishing point of the drawing—the discoverer of the crime?

JAN VREDEN

1527-1607

Architectural Perspective

1604

Conspicuous

26

Working

Working at a site entails not only a knowledge of the site but an adaption to it.

Anyone who has ever decided to paint a plain-air landscape would know about the importance of observation and preparation.

The Impressionists knew from experience that a landscape was in a constant state of flux. This was most apparant in the many changes in intensity and colour of light as it manifested itself on the features of the landscape. They had to have the right colours, brushes, palettes, supports, grounds, mediums, easels etc. They also had, to a certain extent, to adapt themselves to the site. It was useful to predict where the sun would be at a certain time of the day so that the light would be at its best and which way was the wind blowing? Would it be a hot day or a cold day? Was it a difficult place to reach? to set up? to see? - What boots, hats clothes should be worn? How could they avoid the interruptions of inquisitive onlookers?

Anyone who works on site has to consider the implements determined by the task. Whether they be a Scientist, an Artist, a maker of things or a reporter of events they take their equipment to the site. If that equipment doesn't already exist then it would have to be made.

- Necessity is the Mother of Invention. -

Question 2

As Artist who are working over a specific time on a specific work could the equipment we use or make be called ART?

What is ART anyway?

Question 3

We all know that any site is subject to change from human and other natural forces, but does this mean that we have no responsibility to the site? What are the environmental, social (safety?) issues involved in your work?

