

Figura XI.

SVBLIMATIO



Sublimation

Photographs by Tim Graveson: pages 2,7,8,18,26; drawings by Joyce Majiski: pages 15,16,17; drawings by Zea Morvitz: pages 7, 9, 23, 28. Compiled from various sources listed on page 27; with an afterword by Zea Morvitz.



SUBLIMATION

Sublimation (chemistry), the change from solid to gas, while at no point becoming a liquid.

At normal pressures, most chemical compounds and elements possess three different states at different temperatures; solid, liquid and vapor. In most cases the transition from the solid to the gaseous state requires an intermediate liquid state. However, for some elements (water, for example) or substances at some pressures the material may transition directly from solid to the gaseous state.

ALCHEMICAL SUBLIMATION

In alchemy, sublimation refers to the process by which a substance is heated to a vapor, then immediately collects as sediment on the upper portion and neck of the heating medium (typically a retort or alembic). It is one of the 12

core alchemical processes.

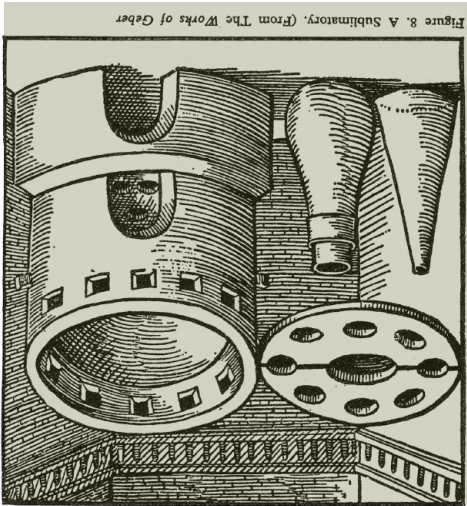


Figure 8. A Sublimatory. (From The Works of Geber)

FOR FURTHER READING

Sigmund Freud, *The Basic Writings of Sigmund Freud*, Modern Library, New York, 1995.

_____, *Civilization and Its Discontents*, W.W. Norton, New York, 1989

Michael Hambray and Jurg Alcan, *Glaciers*, Cambridge University Press, Cambridge, 1994

E.J. Holmyard, *Alchemmy*, Dover Publications, New York, 1990.

Stanislas Klosowski de Rola, *Alchemmy, the Secret Art*, Thames and Hudson, London, 1992

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William Herbert Hobbs, *Characteristics of Existing Glaciers*, Macmillan, New York, 1911.

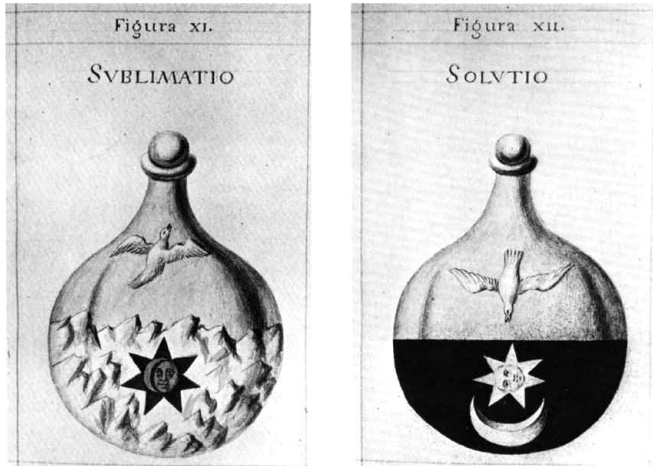
John Tynndall, *The Forms of Water in Clouds & Rivers, Ice & Glaciers*, D.Appleton, New York, 1877

www.wikipedia.org



Sublimatio/Sublimation/Sublime

In August, 2007 three artists: Tim Grave-son, Joyce Majiski and Zea Morvitz rafted down the Alsek River in the Yukon Territory of Canada to Lowell Lake and the toe of Lowell Glacier and for a few days lived in a sublime landscape made by water and ice.



“The eternal process of transmigration or sublimation is symbolized by the flight of the dove upwards and downwards. Water changes Earth into a liquid, which must in turn become earth again. In the liquid state, the fixed is made volatile, and in being reduced to Earth the volatile is fixed.”

Stanislas Klossowski de Rola

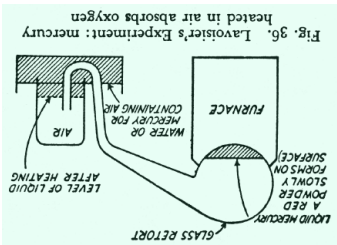
These two states may exist in the object sequentially; for example, if the object is produced by a culture lacking the concept of art, it first exists as object. At a later time, in another culture, it is discovered and recognized—as an *art* object. The two states may also occur simultaneously in an object when seen by two people, only one of whom experiences the *state of mind* or *feeling* that supplies the final component which renders the object an *art object*. Paradoxically, then, the object exists both as an artwork and a non artwork. But for most of us, on an ordinary day, the experience is this: we see an object and recognize its state in a very brief moment. This brings us to the notion of sublimation, in the chemical rather than the psychoanalytic sense.

Just as ice sublimates into vapor without melting into water, an object *sublimates* into an artwork without an intervening change in its physical state. It is no accident that the word *sublime* is applied to great art. *Sublime* describes not the physical artwork, but the unique experience, the moment of feeling, the switch into that state of mind that occurs just as one becomes conscious that *this* is art.

Sublimate, a solid material obtained by the condensation upon a cold surface of a vapour arising directly (without fusion) from a heated solid.

Sublimation is a technique used by chemists to purify compounds. Typically a solid is placed in a vessel which is then heated under vacuum. Under this reduced pressure the solid volatilizes and condenses as a purified compound on a cooled surface, leaving the non-volatile residue impurities behind. This cooled surface often takes the form of a cold finger. Once heating ceases and the vacuum is released, the sublimed compound can be collected from the cooled surface. Usually this is done using a sublimation apparatus.

CHEMICAL SUBLIMATION



ered. However, whether there is a physical artwork or some other manifestation by means of which the artist expresses a concept, these materials do not exhaust the description of the artwork. There is another component which is not materially manifest, but which, if absent, reduces the attempted art object to an *artless* object, a thing in a world of things.

We do not need to plunge into that endless debate about what constitutes an art object or how anyone knows whether or not this thing I point to is an art object. We can simply observe that the art object is not complete without that additional component which is not in any way embedded in its physical substance. Instead, the effect of the artwork on the audience, the interaction of the viewer with the object viewed produces a phenomenon which we may call either a *state of mind* or a *feeling*. Without this transaction we cannot identify an artwork as such.

Without further defining either state of mind or feeling, we can divide the artwork itself into two states:

- 1) object
- 2) *art* object



Rather than proceeding from the Freudian concept of sublimation as the source of art making, it may be more *authentic* to begin with art itself and the project of art making and its supposed aim, the finished *art object*. Art requires physical agency, i.e. the actions of the artist upon the medium from which the art object is made. Even in those instances where an object is not produced, as in conceptual art, there must be a medium by means of which the concept is delivered.

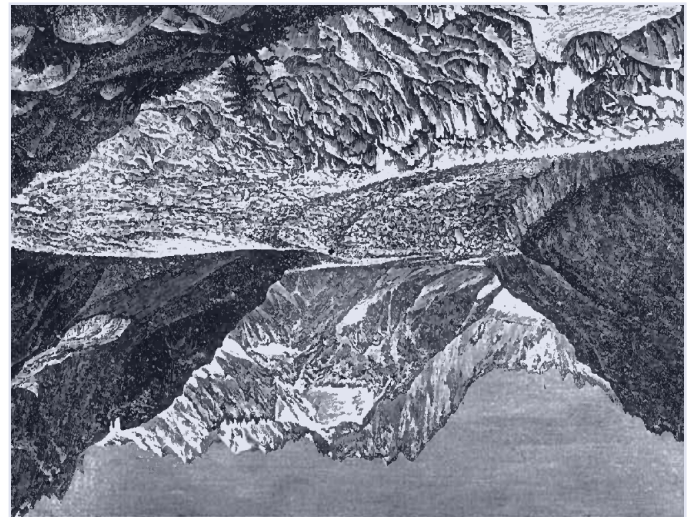
THE SUBLIME in ART and SUBLIMATION

AFTERWORD



Water ice sublimates slowly, at below-freezing temperatures in the zone of ablation.

CONCERNING GLACIERS & SUBLIMATION



Generally, and more loosely, any redirection of energy from the socially unacceptable to the acceptable is labeled sublimation. Clinical description tells us nothing of what is actually happening inside the mind and emotions in such instances.

Sublimation is not a *choice* according to classical theory. Sublimation is a *subconscious* process caused by profound repression, and tends to involve the most insistent instinctual drives, usually sexuality (*see above*). It is as though, because it is one of our basic drives, the subconscious strives to turn us away from that activity to ensure the integrity of the repression.

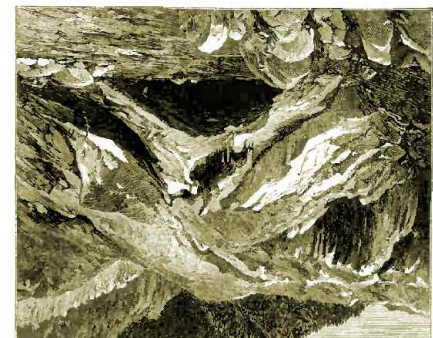
Generally, and more loosely, any redirection of energy from the socially unacceptable to the acceptable is labeled subli-

In sublimation there is a refocusing of psychic energy away from *undesirable* activities to more *positive* outlets. In Freud's classic theory, sexual energy that is only allowed limited expression in a culture, will be redirected into culturally acceptable activities such as art, music, etc. Of course, in cultures that do not find creative expression or art production acceptable the original sexual energies may become the dominant cultural expression along with extreme violence.

Freud considered sublimation to be the most productive defense mechanism compared to the others that he identified (ie., repression, displacement, denial, reaction formation, intellectualization and projection). Sublimation is the process of transforming libido into *socially useful* achievements, mainly *art*. Psychoanalysts often refer to sublimation as the only truly successful defense mechanism.

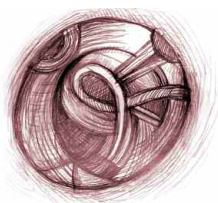
not. Classical theory regarded creative or artistic expression as a manifestations of sublimation.

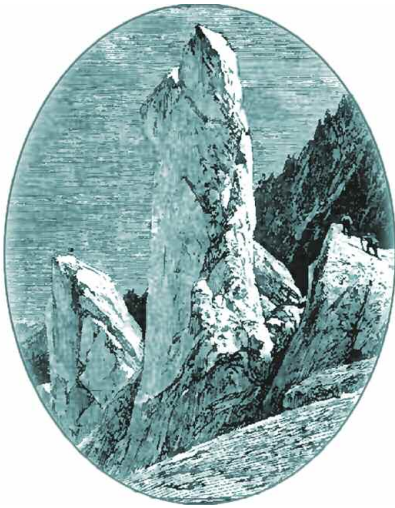
ENGLACIAL DEBRIS



In addition to being transported at the base and on the surface of a glacier, debris is also carried within the body of the ice englacially. Such debris, a random mixture of material from fine-grained clay to boulders, may fall from the surface down crevasses or material from rockfalls may be buried by snow. This englacial debris remains below the surface until released by ablation. During this process debris-rich ice may release material by sublimation.

The zone of ablation or wastage is the area in which the annual loss of snow through melting, evaporation, iceberg calving and sublimation exceeds annual gain of snow and ice on the surface. Of these, melting is most important in most glaciers, but the others, especially iceberg calving, can be significant. Spatially, the zone of ablation can be identified as the part of the glacier below the snowline. The ablation zone often contains meltwater features such as supraglacial, englacial and subglacial streams. It is also an area where much sediment is deposited at the fringes of the glacier. Ablation in a glacier is a key part of the glacier mass balance.





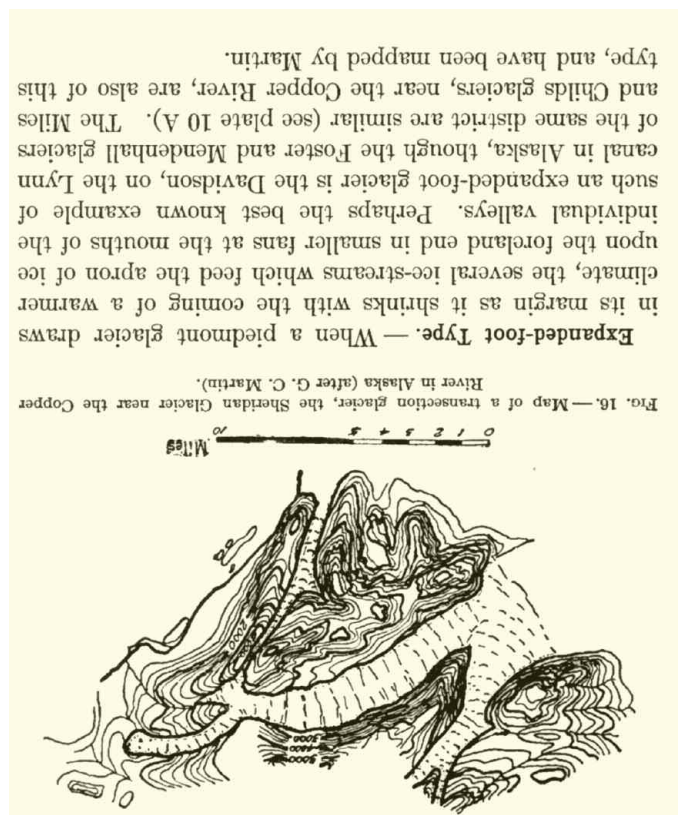
The Psychoanalytic of SUBLIMATION

In classical psychoanalysis, sublimation is the process whereby primitive libidinous impulses are redirected into new, learned, 'noninstinctive' behaviors. Typically, the term is used with the understanding that the learned behaviors are socially acceptable whereas the instinctive impulses are



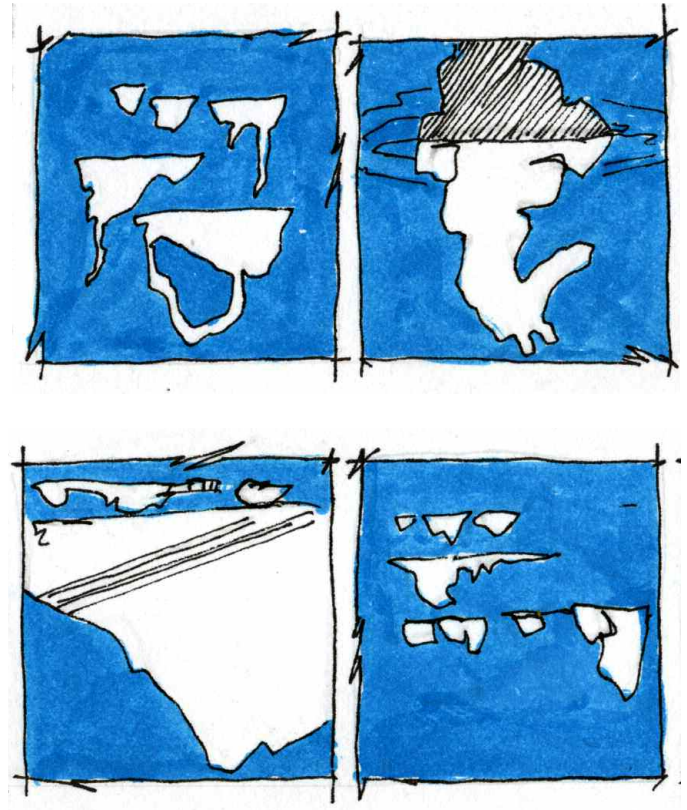
§ 41. *Longitudinal Crevasses.*

276. We have thus unravelled the origin of both transverse and marginal crevasses. But where a glacier issues from a steep and narrow defile upon a comparatively level plain which allows it room to expand laterally, its motion is in part arrested, and the level portion has to bear the thrust of the steeper portions behind. Here the line of thrust is in the direction of the glacier.





I want to take you across the glacier to that broken ice-fall the origin of which we have not yet seen. We aim at the farther side of the glacier, and to reach it we must cross those dark stripes of débris which we observed from the heights. Looked at from above, these moraines seemed flat, but now we find them to be ridges of stones and rubbish, from twenty to thirty feet high.



an expanded forefoot — a good illustration of the combination of these two types in one (see Fig. 16). The type *par excellence* of the expanded-foot glacier is the Baird glacier on the Copper River (see Fig. 17).²⁰ A larger but less perfect example of the expanded forefoot than any thus far mentioned is the Klutlan, in the Yukon basin, whose foot extends a number of miles beyond the front of the St. Elias range.

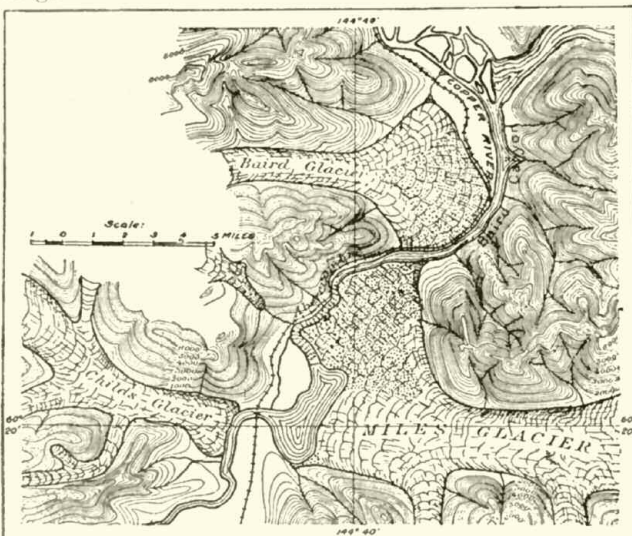


FIG. 17. — Typical expanded-foot glacier

289. Notice moreover that a glacier table is hardly ever set square upon its pillar. It generally leans to one side, and repeated observation teaches you that it so leans as to enable you always to draw the north and south line upon the glacier. For the sun being south of the zenith at noon pours its rays against the southern end of the table, while the northern end remains in shadow. The southern end, therefore, being most warmed does not protect the ice underneath it so effectively as the northern end. The table becomes inclined, and ends by sliding bodily off its pedestal.

