DECEPTIVELY LIKE A SOLID

The conference is on Glass, in

Montreal. Wintry light declines

to penetrate windows, and soon

will be lit glass-enclosed glows

so that we may talk, talk into

the night (fortified by bottled

mineral waters), of the metric

of order trespassing on prevailing

chaos that gives this warder

of our warmed up air, clinker,

its viscous, transparent strength.

The beginning was, is

silica, this peon stuff

of the earth, in quartz,

cristoballite, coesite,

stishovite. Pristine marching

bands of atoms

(surpassing the names we give

them) build crystalline lattices

from chains, rings, of Si

alternating with oxygen,

each silicon tetrahedrally

coordinated

by O's, each oxygen

ion, so different from the

life-giving, inflaming

diatomic gas, joining

two silicons; on to rings

in diamondoid

perfection in cristoballite;

helical O-Si-O chains

in quartz, handed in

coiling, mirror images

of each other, hard, ionic

SiO2.

There must be reasons for such

perfection — time lent to the

earth: then lava

flowed, the air blew thicker, still

no compound or simple eye

to fret defect

into the ur-liquid from which silica

crystallized. But in time we did

come, handy, set

to garner sand, limestone, soda

ash, to break the still witness

of silica. Heat

disrupts. Not the warmth of

Alabama midsummer

evenings, not your hand

but formless wonder of pro-

longed fire, the blast of air drawn

in, controlled fire

storms. Sand, which is silica,

melts. To a liquid, where

order is local

but not long-range. Atoms wander

from their places, bonds break,

tetrahedra

in a tizzy, juxtapose, chains tilt,

bump and stretch — Jaggerwalky.

The restive structures

in microscopic turmoil

meld to gross flow, bubbling

eddies of the melt.

Peace in crystal meshes, peace

in hot yellow flux. But the gloved

men who hold the ladles

get nervy volcanoes

on their minds. So - tilt, pour...

douse, so quench,

freeze in that micro lurch.

Glass forms,

and who would have thought it clear?

We posit that the chanced,

in its innards so upset, ought

not be transparent. Light

scattered from entangled polymer

blocks, adventitious dirt,

owes it to us - oh, we see it

so clearly - to lose its way,

come awash in black or at

least in the muddy browns

of spring run-off, another flux.

But light's submicroscopic

tap dance is done in place.

The crossed fields shimmer,

resonant, they plink

electron orbits of O and Si.

Atoms matter, their neighbors

less, the tangle of the locked-in

liquid irrelevant in the

birthing of color, or lack of it.

Optical fibers Crystal Palace

 The Worshipful Company of Glass Sellers

recycled Millefiori

prone to shattering Prince Rupert's drops

Chartres, Rouen, Amiens float

Pyrex Vycor glass wool

network modifiers the Palomar mirror

smoked for viewing eclipses thermos

lead glass microcrack

etched with hydrofluoric acid spun

frustration bull's eyes annealed

borosilicate softening point

High winds on Etna or Kilauea

spin off the surface

of a lava lake thin fibers.

Pele's hair.

The Goddesses' hair,

here black.