Seeing In,
Looking Out
The dichotomy of windows
By Abby Cady
To my parents,

who always put me beside a window.
Dear Reader,

Look out the nearest window. If you can, open it.

Now, read this:

A LIGHT IN THE ATTIC by Shel Silverstein

There's a light on in the attic.
Though the house is dark and shuttered,
I can see a flickerin' flutter,
And I know what it's about.
There's a light on in the attic.
I can see it from the outside.
And I know you're on the inside... lookin' out.

Now, close the window, and read this:

Windows originally interested me because I have found that I study better when I am near or by a window and in natural light. My childhood home is inundated with light – from the sun and from the people within it, so it makes sense that I would be attuned to light and its effects.

I like watching things whether they be out an actual window in a building or on TV or in a book. The distance is comforting, allowing me to live vicariously. I can share in the experiences of my fellow man at little or no risk to myself. I like being on the inside looking out.

But, I also like going out there and seeing things firsthand. Windows may transmit light, sound, and air, but they don't carry many of the other worthwhile things. I'm slowly expanding my private glass enclosure, taking it down pane by pane. I must do this before some huge rock comes hurtling through my life and smashes my transparent protection.

I seek windows, but not for the separation. I want them for the integration, the completeness, the impossible bringing together of out and in.

Now, open the window again, and this time, don't close it.

Sincerely,

[Signature]

Abby Cady
Split Identity

Born in fire. Out of thousands of tiny pieces of sand, soda ash, and lime, placed in the fiery womb and drawn out at the right moment to be formed. You twist, pull, push, spread, spin, blow, press, work as it cools. Visualization is key. See the blob as a bottle, a bird, a pane and coax it into shape. Envision the molten syrup as vast shining sheets and let it settle. Patiently, carefully, make your glass. Nine pounds of glass cannot resist the “tendency” of the “action of heat” whether violently spinning or gently spreading, so your exerted force will win whether it’s you or gravity.

Clearly imperfect or perfectly clear, your window will not remember its hellish origin. When you have finished, it will be unmeltling ice. Cool to the touch and smooth as water those tiny pieces are inseparable, forever joined. It will never know the great irreconcilable difference its existence creates. Born hot, living cold. Made out of integration, created to separate the space. The glass is one entity, yet it makes two parts. Harmony and dichotomy – just like you.
I stand in a green field sprinkled with yellow flowers with a bright blue sky above. I’m in a flat meadow in between smooth hills, the soft grass cradles my bare feet. My arms and legs are free to feel the air – I guess I’m wearing a light cotton dress. I can feel the cool breeze wrapping the gauzy fabric around my body.

I feel at peace, safe.

As I stand, enjoying the place, I notice some quartered panes of glass -- windows -- no walls, just windows, floating. They don’t stay in the same place in the sky, pushed by the breeze in drifting formations. I can’t see through them, and I can’t see past them. They’re almost like a cloud of dandelion seeds, the sun glints off the panes. I can’t focus on them, but I catch glimpses of an alarming red that does not belong amid the serene blue of the sky.

I move to look closer, but my feet are rooted in the grass, like I am a part of the meadow.

More windows gather in the sky, swarming and humming as if they were angry bees. They come together, the red flashes amassing into a gleam of equal, then greater magnitude than the blue behind it.

Suddenly, the panes slam together around me, forming a smooth, spinning cylinder. The only sky I can see is high above me, a small circle. The air inside grows hot as the glass spins, glowing, burning, baking me like I am in a greenhouse.

The round of sky over me crashes closed – a sinister dome caps it and slowly lowers. It all spins faster, flashing red from behind the glass and white off the reflections inside. The glare is sharp, it hurts my eyes.

I panic. The dome is closer, closer compressing the hot air, almost solidifying it, suffocating me. A high, keening whine fills my head, drowning out all thoughts.

Spinning, spinning, flashing, so fast, so hot – I’m burning, I can’t move – the dome slams into my head –

I was just dreaming...
Scientists have observed light.

Dr. Bayram

- Atoms connected by "springs" - molecules
- Glass has its own disturbance frequency - natural frequency
- Wave carries energy - window gets warm
- Best way to carry energy
- Sound resonance - frequency matches the natural frequency

- Car - lots of glass
- EM radiation
- Deformation of light
- Small grating - different colors split
- Eye only sees combination
- UV
- Infrared - heat + energy
- Apol part of radiation
- Radiation is trapped inside the car
- Inside gets hotter

Greenhouse gases - 5 gases
- Light made from prisms
- Every atom gives off different colors
- Colored glass passes specific wavelengths
light leaked
- deflection
- bends when it goes through glass
  light bent

Snell's law of refraction
  light refracted
  angle of passing through changes how it comes out
  light reflected

light reflects from boundary
  - reflects from boundary
  - transmitted from
    - from air to glass \rightarrow refraction

prism disperses light into colors
  light dispersed

water has a different index of refraction

light speed

\[ c = \text{speed of light} \]

changes when it goes through glass

\[ n = 1.5 \text{ in glass, index of refraction} \]

faster than air slower than glass
light blocked | light passed

blocking - passing through a small aperture becomes bigger; aperture (like a curtain) grows.

distance

Reflection - glass becomes a mirror; light comes in and out at the same angle; law of reflection.

light angled

Temperature affects it?

Newton observed small aperture - light deflection

light observed.
“Building for Light”

Architects recognize that windows make the character of a building, inside and out. In *Window Selection: A Guide for Architects and Designers*, Ian Collin and Eric Collins note that “no other component of a building has to be so many things and to serve so many functions for the satisfaction of the social needs of the occupant.” People have constant conscious and unconscious interaction with windows from intentionally opening and closing them to absentmindedly gazing out them while daydreaming.

Windows also have an important role in the interaction with the outside of a building. “It is to the eyes that we look for personality in our fellows. It is to the windows of a building that we turn for clues as to its nature,” Collin and Collins continue, underlining how vital windows are to a building’s character. Windows influence how people feel about buildings, whether they are enjoying the sunlight streaming in or surveying the careful fenestration in the façade.

“Daylight is universally and freely distributed and is a constituent part of a building,” says Richard Sheppard and Hilton Wright. They and other builders pay careful attention to how light interacts with a window and the room behind it. They position the apertures and choose the materials and size to maximize the daylight factor, or the percentage of the total light available from an unobstructed sky. Daylight has a certain “illumination value” which is determined by the size and position of the windows and the obstructions outside.

These aesthetic and practical considerations come into play when an architect is choosing windows. An expansive curtain window offers a beautiful blanket of light but it is inefficient in terms of heating and insulation. Smaller windows eliminate the energy problem but leave much to be desired in terms of view. The designers make tradeoffs and compromises to create the best arrangement possible, keeping in mind that “no other component holds that key, or commands the attention, in the same degree as the window, the link between the communal environment outside its walls and the mystery of the private activity within.”
Air

Air reaches through the window and touches your face, asking you to go outside and sing with her. She’s kind and warm. She fills you with good smells and happy sounds, nourishes you, gives you life. You’re sure to leave all the apertures and openings in the house open so Air can come and go as she pleases. You love spending time with her, which is especially good because she never leaves.

After a while you decide to spend some time with Sunshine or Warmth. Air feels neglected, taken for granted. After all, she is the one who brings them to you through herself. So she slaps you, hard, with her suddenly cold hand. The blow comes from far away, from some hidden region of her you’ve never seen. She pushes you, moaning and howling, making you stagger. You don’t understand what you have done wrong. Did you misunderstand her gentle pressure on your skin? You thought she wanted you to sit with Sunshine and Warmth to chat while she gently drifted, since you all were such good friends.

Air never seems to say what she really means. Her face is always too distant to see, so you never know what she looks like. She tries to talk, but she can’t seem to find the proper volume or voice. The trees will whisper or scream for you, but her meaning is lost in translation.

Earlier you might have sensed there was something amiss. She was unusually breezy for this time of day and her cloudy garb was disturbingly gray. You noticed she was restless and you could taste tense electricity.

You go inside now, seeking shelter from Air’s grasping fingers, but she is there too. Within the walls she is sad and still. You can incite her movement, but the breeze is mechanical, artificial. Air swirls around by the windows and sadly taps on the glass. If she had eyes she would be staring longingly outside. You feel cruel for capturing her and holding her within the walls, but you had to tame her, for your good and hers.

But, those days when the sun is out and the trees smell sweet, you’ll open the windows. Then Air will dance with joy on both sides of the walls. This is when she inspires your smile most.
the air carries more than light

My eyes are the only thing closed -

the window open
my ears open
my skin open

to whatever comes
into, across, through
the wind eye,
open.

I see the wind when I hear
rustling leaves, distant shouts, passing footsteps.
I see the light when I feel
warm sun, lifting breeze, sweet mist.

I do not look through the wind eye
yet I see.
Window Treatment

The transparent hand

holds your breath where you can see it
pushes you back from falling
protects you from the sharp wind
welcomes some tender rays of sun
admits the laughter from down the street
bestows cool kisses on your fingertips
keeps the bad out
keeps the good in

makes sure you see nothing beyond
slaps you on the forehead if you run too fast
blocks the sweet, beckoning breeze
allows the white hot glare to bake you
divulges the shouts from next door
stings your skin with cold
keeps the good out
keeps the bad in

eternally extended
Holiday Displays

I rush off the porch into the blue crystal air of December dusk, leaving the angry crackle of the hearth and the burning faces around it. Instead, I meet tall, lonely trees with their bare arms reaching out for some comfort against the cold, though they know they will receive none. These sentinels are interspersed between the houses full of neighbors who are full of joy. Happy light spills through their portals. I avoid it as I turn onto the sidewalk. Distracted, I pay no attention to the dwellings or their occupants, focusing on keeping the tears from spilling over.

To distract myself, I watch the snowflakes detach themselves from the pale enamel sky as I walk. I keep my face down, looking around occasionally to make sure I am not going to be run over by an errant snowplow. The sharp breeze plucks at my loose hair, dragging strands across my rough, dry cheeks and lips and catching them on my wet eyes. I brush them away without looking at my surroundings. I risk someone seeing my teary face, so I keep walking, booted feet pounding the ground in time with my racing heart.

Eventually I run out of sidewalk, and I’m forced to make the tight loop around the cul-de-sac. I stare out into the center of the open circle at the round of virtually undisturbed snow resting where the salt truck could not reach. It seems almost luminescent in the twilight, emanating an unearthly deep blue light in the dimming twilight.

I allow my eyes to drift across to the opposite side of the street. A Christmas tree stands behind every window. Their cheery, electric wash overpowers the fading melancholy glimmer of the snow. They call out through the glass season’s greetings with a sweet twinkle and warm beam, but I ignore them and step over the beams cast from the lit trees in the houses parallel to the path in front of me.

I reach the opposite end of the road and I cross, heeding my frozen face’s painful, silent plea for shelter from the biting wind and sharp flake. The rhythm of my boots slows to a more restful tempo, allowing me time to face the picture windows beside me, to examine the now illuminated decorations more closely. Some of the displays are perfectly tuned to the exterior adornments so all the lights are multi-colored or white, but never mixed. Such careful arrangement crafts a unifying and pleasant scene, but it is only craft. I see no people through the window, and the lights are out in the trees’ rooms. No music comes from within, nor do I hear any sound other than the quiet hiss of the snow. Even among these numerous dwellings supposedly full of goodwill and cheer, I and the trees, both indoors and out, are alone.

I subconsciously slow as I near my address, not wanting to think that I will find the windows blank and dark, the tree unlit. It seems unbearable that there should be a house that does not even pretend to be happy at this time of year, that maybe that little building needs some time away from its brick brethren to reflect on the True Meaning of Christmas and how it must embody goodwill toward men by opening its doors and depleting its stores for the invading hordes of relatives. But, it is likely that the poor thing would just end up feeling exhausted and sorry for itself, not wanting to return to its cold, hard foundations. The house wants others to think of it as a home, and it sometimes turns on the lights behind its windows so the other houses in the neighborhood are not upset by its lack of spirit.

I look into those windows, peering out from my own, wishing I and the house could show the others what is really going on in the rooms inside.
Two in a Pavilion

Sitting in a band of light slanting through the window of my room.

I don’t know why he doesn’t move, the beam is right in his eye. The light catches every bit of color – green, brown; under soft, short lashes and striking, strong brows. His eyes fit well in his face, and I can’t help looking at them. I sit across from him and just stare, and he lets me. He knows why I do. The longer I look the more I feel and the less I think. The young skin around his eyes says nothing of tears or worry or long laughter – I can’t read the periphery, I must gaze into the center.

So I keep staring until I’m not looking at the irises and pupils. I see through them. I shy away from the back of his mind, deep inside where I might not like to go just yet, or ever. I stop in the middle of the space and just rest, letting the sun warm me and him.

It is not a room, it is a pavilion – a stable platform, but with nothing to block the surrounding vistas. A limitless view out over the landscapes of thought and experience. I see the peaks of the wonders he has seen and the valleys of the hurt he has felt. The foliage on the hillsides is colored for every emotion. Rivers run with tears shed and withheld. I could sit here forever and just watch the scene live...

But I think of the fact that when I look into his eyes he is looking into mine. Now I wonder if he has found the same kind of peaceful place in me. The awareness of the question makes me conscious of what I am doing. I want to shut my eyes, cut off the bond, hide my face, my eyes, so he cannot see whatever is in there. Because, though I see beautiful thoughts when I stare into his eyes, I cannot see what he sees when he stares into mine.
Treated Windows

The colored hand

**Distortion**

Interprets the story
Ingrains faith
Restricts the soul
Dazzles the eye
Ensnares the senses
Casts a spell
Blocks the light
Distorts the truth

**Clarity**

Tells the story
Gives faith
Moves the spirit
Proves the glory
Guides the mind
Bestows a blessing
Transmits the light
Proclaims the truth

Eternally extended
The horizon
out the window cannot be bracketed — the frame does
not capture it — it expands beyond the bounds of the small port — so small —
the view is so expansive for so small a hole — so big — the glimpse of the bigness below
is frightening — as frightening as the small space inside — as frightening as the huge space outside
— nothing between the cramped interior and the endless outside but three panes of glass — special glass — but
just glass — the top edge of the frame just below the eyes — glancing down oblique — the better part of the picture
blocked by the walls — distortion — the three panes change what is seen — the perception from above is so different
anyway — far away from the ground — the ground is big — it looks bigger from above — the ground looks bigger but
the things on it are smaller — the cars are tiny — the ocean is bigger than the ground — the porthole in the air is not so
different from the porthole over the water — both tiny — both on vessels skimming through liquid — neither can see
the immensity of the scenery — rushing by — only a glance — barely a glimpse — big sky — big earth — tiny window —
all that can be seen are clouds - a sliver of ground — a slice of water — the frame full of sky — there are no clouds on
the ocean — there is fog — fog in the air is clouds — eye level with the clouds — that is a singular perspective — singular
as looking a dolphin in the eye from a port below the water — the eye inside the window looking at the eye outside
the window — familiar eyes on both sides - the clouds look like dolphins from this angle — the angle of the sun makes
glare sometimes — sometimes the glass cannot be seen out of — the sharp glint off the plane wings — the blinding
whiteness of the clouds — blaze of sun shining through — they look so clean — clean as the dolphins — what do the
dolphins see as a horizon — do they know the line across the sky — do they have a sky —the windows
are small in the sky — as small as the sky is big — too small —the windows on the ocean are small —
as small as the ocean is big — the bigness cannot be comprehended even when within it —
so big — so small
Step Through

You are two.
You are many.

You are looking out and you don’t know who is looking in.

You want to see.
You want to know.
You want to go.

But you can’t.
You’re stuck looking through – out of and into the windows.

But little do you know you can remove the pane of glass.

Take your house and move it down the street.
Look into my windows, and find me.
I am in the glass enclosure. I can’t breathe. I can feel the glass burning my skin. It is beginning to melt forming over my body into a hard shell. Encasing me. Sealing me away. I gasp for breath – no!

With all the force in me I push at the glass, kick it, punch it, claw it, slap it, slam it – screaming all the while. I fight.

The glass has stopped melting, it turns cold. It hardens and the air inside chills. My movements slow as the temperature drops. Still I struggle, though my screams are now whimpers. I almost can’t move for the cold.

I remember that cold glass is more fragile. I muster my last bit of strength into a final blow on the center of the dome –

It cracks. A small, hairline fissure. A snowflake falls on the dome. The crack deepens, and as more snow sticks to the top it spreads across the dome, down the sides. A lacy lattice is spread across the glass. I breathe in –

It shatters. Shards and flakes fall around me, a glittering flurry. None cut me.

I stand. The extension of my limbs feels glorious. I step over the ring of shards at my feet. The further away from the site I get, the faster I go. The air is cold, I’m still in the dress, but my smile makes me warm. It is snowing all around, the green meadow now a clean white. Sparkles off the flakes shoot tiny fragments of light at me, but they bounce off my pale skin like the soft flakes tumbling from above. They all wash me, and I shine.

Free.

I run over the crystalline ground, glass that doesn’t cut me, towards a crowd of people at the edge of the meadow.

I hear them cheering.


"John addressing visitors:

Up to this day,

 Dolphin opened.

of my heart

All the windows
Bibliography


Images taken from Google Images searches
Notes

Dedication Page — For clarity’s sake, I must say I am not the child in the picture, but the baby is me in spirit. I owe my perspective to the windows I have looked out of, which I owe to my parents. They made sure I was always surrounded by light—both physical and metaphorical. The windows in our home still bring me peace and offer a way to let things happen without worrying about them. The big windows meant I was safe, and they still do.

Page 1: First Genre — This optical illusion more perfectly encapsulates what I want my project to say than almost anything I could write. The visual trick is graceful and the eye is naturally drawn to it. The confusion over which way the windows open parallels the later character’s trouble with which side of the “window” she is on. The reader cannot help but look at the image, though the longer one looks the more disturbed one becomes, just as she cannot stop thinking about where she is and what she is doing to herself. This is the first real introduction to the duality of windows the paper focuses on, and the completeness of a picture starts the project on a strong note.

Pages 4: Dreams — Here we meet the character, who I will simply call the girl to prevent confusion. The girl feels trapped in her life, especially after recognizing the dichotomy within her from the piece before the dream. The safe, secure feeling she has in the meadow ties into her false well-being in real life. Likewise, the floating windows that turn into a dome compose the cage she has built for herself. She can look at her life and the people passing through it, but she cannot join them because of her fear.

Pages 5-7: “Light observed.” — Though the character of the girl is not directly mentioned here, it is safe to infer that these could be her notes from a science lecture. Light is circuitously given personality and action through the verbs like “sprang” and its scientific properties are mentioned with words like “dissipated” and “transmitted.” The final word is the most important. “Light observed” is both further personification of light and a play on the first statement of the piece. Saying both that “scientists have observed light” and “light observed” makes the action of observation reciprocal—like two entities watching each other from different sides of a window.

Page 10: “the air carries more than light” — Two of the major elements of windows (other than glass) are explored here. The word “window” comes from two Norse words meaning “wind” and “eye,” referring to the two things that commonly pass through windows. Air is the transmitter of everything we can perceive, but we often forget things such as sound and smell. Mixing up natural elements and the senses that usually recognize them highlights those neglected sensory treats and “opens” the reader to experience things on a deeper level.

Pages 11 and 14: “Window Treatments” and “Treated Windows” — The dual nature of windows is distinctly remarked upon in these pieces. From the title to the arrangement of the lines and pictures the two sides are delineated. “Window Treatments” is a study of common windows such as those in houses while “Treated Windows” focuses more on the ideas surrounding stained glass and religion. These are very different kinds of windows, but surprisingly both do similar things in terms of the things