Letter to the Editors: 
A View From and On the Window

Submitted by Penelope Ann Shaw, PhD, and Diana C. Anderson, MD, MRAIC, LEED AP

One of us, Diana Anderson, is a physician and an architect whose career is aimed at bridging the gap that exists between medicine, research, and architecture in order to improve design and operational efficiency of the clinical environment. She has worked in many hospitals and healthcare environments that are not supportive of staff well being nor sometimes even patient healing. Dr. Anderson often uses clinical anecdotes in her writing, linking them back to design in order to increase awareness of design’s impact among her clinical colleagues. A recently published piece in the Journal of the American Geriatrics Society (Anderson & Hamilton, 2014) recounted her experience with critical care unit delirium and the potential impact of windows on a patient’s physiologic response; a synopsis of this encounter is detailed below.

The other author, Penelope Ann Shaw (Penny), is a nursing home resident who has been living in a facility in a bed by a window for 11 years. She is a survivor of critical care (having spent 4 months in an ICU on life support) from an acute phase of Guillain-Barre syndrome, a rare neuromuscular disorder in which a person’s immune system damages the nerve cells, in her case causing almost total paralysis. That was followed by a year in a respiratory rehabilitation hospital. Of the 11 years in her current facility, she was mostly in bed for 3½ years with a tracheostomy and a feeding tube.

Penny reached out to Diana after reading that piece in the Journal of the American Geriatrics Society in order to relate her story of how a window changed her experience dramatically while in long-term care. They teamed up to write a piece that builds on the topic of windows and exterior views. In the following sections, they provide insight into how these architectural elements can be life changing for patients and of vital importance for staff.
Penny’s Patient Perspective

During these many years in my nursing home I’ve had the good luck to have a bed next to a large 5’ by 6’ window. The light streams through with daily and seasonal changes. I see light, bright warm sunshine, sunrise and sunset, lightning, overcast skies, and fog. The color of the sky alternatively may be white, light or dark grey, blue, red, or leave my window completely black in the middle of the night. Sometimes the clouds in various formations may be visible.

There is a beautiful maple tree directly outside my window with a building behind, which I enjoy for its architectural details including rounded and circular windows. There is a wooden fire escape up and down which people walk. I follow the tree seasonally from the empty dark limbs of winter sometimes frosted in snow, to the early yellowish-green buds of spring, to the mature dark green of summer, to the autumn changes of red, orange, yellow, and brown, after which the cycle begins again. The motion and force of the wind brushes snow off the tree in flurries and leaves off the tree in great abundance.

Staff members use my window to check the weather, see how much snow is falling and whether they’ll have to scrape their cars after the storm. It’s a conversation opener for them to stop for a moment in their busy schedule and chat.

The sounds I hear through the window are another source of pleasure. The wind may be soft and mild or harsh and howling. When it rains there are the sounds of thunder, and other times the delicate pings and spatterings of rain and snow against the pane. Sometimes the droplets fall in many straight lines side by side, appearing like a beaded curtain that makes the window opaque, letting little light in between. The windowpane thus becomes a canvas for the elements to draw abstract geometric patterns that can absorb and distract me, creating a form of entertainment for several minutes. Another sound I hear through the window is that of the whistle of an Amtrak train going by, reminding me of people traveling from place to place, living their lives, enjoyably I hope, connecting me with the larger world. With the return of spring comes the bubbling chirping of birds, subtle and very pleasing in their communications as well as the opening of the window which permits me to smell fresh air.

The building behind the tree with its architectural details reminds me of my past—my senior year work-study job was at the University of Michigan, Ann Arbor, in the architecture library where I fell in love with buildings. I think of the days I went to Boston and looked at the brutish architecture of Boston City Hall, the beauty of Trinity Church by H.H. Richardson, or the Bulfinch dome on the Massachusetts State House. The building outside my window also reminds me of the years I lived in Europe and visited architectural icons such as gothic cathedrals, Notre Dame du Ronchamps, the Acropolis, and the Roman Coliseum. Living in the Caribbean for 2 years I enjoyed the colorfully painted residential architecture there. So when I look out my window the building is a trigger for a life review.

During these 11 years, I’ve been in the same bed, in this same room where three of my roommates have died. Of course, I’m with them before the family or the
mortician arrives. After watching their distress and decline I can look to the right and see the peaceful faces of my companions about to go on their last journey. Being in the room with someone who is deceased I had only to look to the left to see my tree, with me, representing the eternal cycle of life that will survive us.

Looking out my window connects me not only with the powerful restorative effects of nature but connects me with people. These benefits improve my quality of life: my mood, my vitality, and my overall well being. It is also compensation for the stresses of living in a nursing home. I find peace and rest, important components of my long journey back rebuilding my life after years of institutionalization.

Diana’s Physician–Architect Perspective

The movement towards evidence-based health facility design has focused much of the research and intervention on improving the patient experience through supportive design features while recognizing the potential for improved health outcomes. A more recent emphasis has been on the impact of design for operational efficiency and providing effective workspaces for staff as well as patients, who also benefit from good design. Prior studies have demonstrated that supportive design of staff spaces can help employees cope better with workplace stress, reduce absenteeism, and support employees in providing quality care.

I now understand the importance of well designed staff environments for the physical and emotional well being of those of us who work in these healthcare buildings, in addition to benefiting the patients for whom we care.

During my first week of internship as a resident doctor I encountered a patient who would solidify for me the importance of design intervention. In my current hospital our critical care unit is racetrack in design, with one side of its patient rooms without windows. Ms. T. was an 81-year-old woman with dementia. Although we administered fluids and pain medications, her heart rate continued to be elevated for a prolonged period of time. She had been in one of the windowless rooms for several days at which point it was suggested we move her to the other side of the unit, with views overlooking the river. Although a few team members looked doubtful when this was formally mentioned on rounds, she was transferred that afternoon. I recall looking into her room later that day and seeing the distinct light of a summer sunset streaming through her window, noting that her cardiac monitor had stopped its incessant beeping as her heart rate normalized and she appeared calmer. We will never know the exact mechanism for this physiologic change given she was receiving numerous treatments in addition to the room change, but I believe the sunlight and river views had an impact. Although this is only one medical anecdote, as such anecdotes accumulate, they eventually lead to confirmation studies and change follows. This example is encouraging, not only incentivizing the daylit hospital, but realizing the culture shift of the medical team in accepting the importance of environmental factors as part of the medical plan.
As incoming residents we are often told by seasoned clinicians that the training period of residency is akin to going to battle. We put on our uniform (in this case our scrubs) and go “into the trenches” (the medical inpatient floors), are told not to look back and to focus on one task: surviving the training. It is a brutal period complete with sleep deprivation, physical demands, emotional stress, and the need to confront human suffering and death on a daily basis. Many ask how we can work such long hours without breaks, but in truth with so much work and little access to natural light our sense of time becomes lost.

Perhaps some of the more challenging aspects about being in the trenches are the lack of areas of respite for staff and the shortage of nature and daylight. In design workshops, the patient space is often considered the highest priority, while staff lounges and workrooms are frequently the last areas to be given natural light or situated along the building perimeter. I have often found this to be paradoxical when considering that patient length of stays are decreasing to only a few days, whereas staff will work in the same environment for years.

Critical care units are intense environments for staff and are generally designed in such a way as to allow for direct visibility into each patient room from the central workstation. Some critical care units allow for an enclosed area with comfortable seating and ambient lighting and music for staff to take a few moments and recharge during long shifts. Having worked in critical care units without this type of space, I found myself retreating to the clean supply room as a place where I could disappear out of sight between ceiling-high supply shelving units and take a few moments to compose myself during overwhelming clinical moments. Awareness of the need for areas of respite for staff, especially within intensive care, should be included in the planning process and their importance cannot be minimized.

Can better design encourage medical staff to take short breaks and be an influence in the model for behavioral change? Barriers to these moments of respite include individual and community beliefs about work, the operational demands of healthcare work itself, and the quality of the built environment in which that work is being performed. There is a large window at the end of a corridor on the top floor of my hospital and I will take time to go there, especially after an overnight shift, just to see the sunrise over the city and reflect, leaving behind emotional and physical burdens of the shift. By providing light to staff areas, views to the exterior along wayfinding paths, and areas of respite, the training experience can likely be made easier and more humanistic.

A View Forward

The era for implementing culture change in medicine is upon us. Appeals are being made for better healing conditions for patients and working conditions for staff, and healthcare design is increasingly emphasized through architectural projects and research. Although there is much discussion and research on the link between culture and performance, the association between physical environment and well being is still being investigated and is often under-recognized within the clinical realm. The gap between architecture and medicine can be
made smaller with increased interdisciplinary collaboration and application of evidence-based research. By making these patient experiences and clinical anecdotes known and therefore forming important alliances between patients and providers, the future of medicine will be more likely to accept and integrate environmental factors as part of the healthcare process.

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