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Performance Architects on Architecture

When you walk into a building for the first time, what catches your eye? Perhaps what draws your attention is different in a private home than an office building or a public space like City Hall or a movie theater. Do you notice directional signs to help you find your way? Or do you focus on furnishings, lighting, or works of art? All these elements are part of the built structure. Combined, they convey messages about the purpose of the building and provide insight into how the building is used.

What is Architecture?

"To practice **architecture** means to provide services in connection with the design of **buildings** and the space within the site surrounding the **buildings** that have human occupancy or use as their principal purpose." (Wikipedia)

Paul Harmon tells us that "an architecture is like a map or a diagram, " and we are all familiar with the blueprints architects draw with all the specifications that builders need to construct a building.

Building architects take a broad view that goes beyond the physical design of a structure. Within the client's specific requirements, the constraints of time and money, the local building codes and neighborhood concerns, building architects view the entire structure as a dynamic system with multiple components.

Performance architects also take a broad view, but of the organization. They view business processes, strategies, structure, culture, leadership, job performance and all the other operational components as a dynamic system. Each part affects every other part, and the best way to produce the desired business results is to align all the components of the system.

Architecture as a Performance System

Performance Architects have deep respect for building architects; we are both working with multiple elements that have to mesh to produce desired results. When we started investigating all the ways architecture is part of our lives, we asked what, specifically, does architecture do for people?

As we explored this question, we uncovered a long list of answers. And the connecting theme was that architecture should ultimately improve the performance

of people whether in a work space, a private home, a civic building, or any other structure in our environment. This means that the architects of built spaces must carefully consider such factors as:

- The structure's intended use – as a dwelling, an entertainment venue, or for manufacturing, for example
- The people who will work, visit, see, wait, or live in the space
- When people will use the space – daily, during specific hours, seasonally
- How the building's elements should be designed to enhance what it is that people will do there

 "…according to the EPA, Americans spend 90 percent of their time indoors. That's 90 percent of our time surrounded by architecture" (Kushner). Ultimately, the details of 'the building's design are critical to the performance of the people using it

How Does Architecture Improve Performance?

Winston Churchill said, "We shape our buildings, and afterward, they shape us." Buildings have the power to enhance the efforts of the people in them so they are more productive workers, happier residents, and better informed visitors.

Some ways that architecture can improve performance include:

- Enhancing learning
- Improving productivity
- Improving wellness
- Increasing human dignity
- Creating community

Let's take a look at how improved performance happens in buildings.

Enhancing Learning – The Library Initiative

Robin Hood is an anti-poverty organization in New York City. They wanted to do a project to benefit the huge New York City school system that educates more than one million students at any given time. Carol is a product of this school system and can attest to the condition of the school buildings: large, old, too hot, too cold, in need of repair. Robin Hood realized they could not renovate all the school buildings in need. They selected one room in each of the schools to renovate so that the lives of the children there would improve. They chose the school library because all students have to use it. The project became known as the Library Initiative.

More than 20 architects joined the project, each assigned to a school and tasked with re-thinking what a library should be. One architect was working with a library that had a really high ceiling. Bookshelves ran up the walls and stopped at a reasonable height so the students could reach them. However, there was a large expanse of wall above the top shelves that went to the ceiling and the architect asked for help in adding a mural to the empty space. A photographer volunteered to take photos of the kids in the school and create a frieze of them for the walls. The results were spectacular, with oversize photos of the students looking down on the live students learning in the library.

The other school librarians in the Library Initiative loved the frieze and wanted similar visuals for their renovated libraries. A number of talented artists lent their skills to create paintings, collages, silhouettes and other wonderful art to delight and engage students in their new libraries.

The Library Initiative has been operating for 10 years with 60 schools participating. Forty-thousand students have used these libraries to discover the joys of books and thus improve their performance. (Bierut)

Improving Productivity – Healthy Buildings

Performance Architects routinely discover that the work environment can significantly detract from employees' productivity. We find that in addition to changes in leadership, department structure and the like, noise levels, office layout, or other changes to the physical environment can also cause a drop in productivity.

Buildings can improve human productivity when careful consideration is given to such elements as air quality, light levels and visual aesthetics.

Air Quality – *Quite simply, bad air is bad for us. It can include high CO2 levels, pollutants, or poor ventilation that diminish cognitive function and thus peoples performance.*

Light Levels – *This is a catch-all term used to describe lighting that does not adequately support the tasks that workers, for example, are asked to accomplish. What is most important is the amount of natural light people can access. The Vitamin D in natural light is critical to the well-being of humans and its' absence directly affects productivity, particularly in seasons with fewer daylight hours.*

Visual Aesthetics – "*…*a dull, ugly building with poor views, poor lighting, and a 'cold' visual feel isn't likely to make us feel particularly inspired – and as a result, we likely won't work as productively as we could…"(Hale). So, what do we mean by visual aesthetics? Consider the materials, colors, and textures in a building. Those that are chosen to be welcoming, calming and related to nature are conducive to productivity. "Visual appeal is a major factor in workplace satisfaction." (Hale)

Fortunately, we are paying more attention to designing healthy buildings. **Biophilic** architecture is a new arena of design that includes a closer relationship with nature and has been shown to improve productivity.

Improving Wellness – The State of Being in Good Health

In building architecture, wellness and productivity are closely linked. If the environment is designed with good health as a goal, people are likely to be more productive.

Good architectural design supports health, safety, and welfare. The fundamentals that architects should make part of their design considerations are:

- Environmental quality
- Natural systems
- Physical activity
- Safety
- Sensory environments
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"Building materials, lighting, ventilation and the use of space can all affect the mood and physical well-being of building occupants. Design can influence the productivity

level of people working in an office. It can improve air quality at home and encourage movement while minimizing the risk of injuries." (PDH Academy)

Environmental Quality – *Minimizing Pollutants*

Today architects and building planners understand the importance of circulating fresh air and choosing carefully considered building materials with fewer chemicals. And LEED certified green buildings are good for business. Workers have better health, produce more, and there is less turnover. Green school buildings show increased student test scores and reduced absenteeism.

Natural Systems – *Health and Recuperation*

Not surprisingly, the more personal control people have over their environment, the less stressed and more productive they are. Something as simple as individual room controls for heat and air, along with access to the outdoors make a significant difference.

Include natural ventilation, install fans that eliminate pollutants, and use electric appliances. Use low VOC paint, and fabrics made without formaldehyde. Install solar panels whenever possible.

Physical Activity – *Exercise for Better Health*

In addition to a space specifically designed for exercise such as a park, gym, or health club, buildings can be designed to encourage physical activity. Once again, natural light is key. It encourages activity as do open spaces with views and access to the outdoors. (PDH Academy)

Safety – *Incorporating Ergonomics*

Ergonomic considerations in buildings help minimize the chance of injury. Lighting is critical, both in making sure people can clearly see their surroundings and, when used outdoors, to deter crime.

Accessible design that is safe but not institutional is called **universal design**. Our elders are increasingly interested in aging in place and this type of design can be appropriate for all ages because it is universally safe and attractive. Designing buildings for every age means everyone is comfortable with features like wider hallways and adjustable-height kitchen workstations.

Sensory Environments – *Appealing to the Five Senses*

Sight, touch, smell, and sound are the senses that evoke feelings in people. In a built space, we relate to what pleases or offends us about the décor and materials used. Thus, architectural design choices can positively affect peoples' mood and feeling of well-being. This, as we've seen, leads to improved performance.

Increasing Human Dignity

Dignity is "the state or quality of being worthy of honor or respect".

"…Well-designed spaces are not just a matter of taste or a question of aesthetics. They literally shape our ideas about who we are in the world and what we

deserve. That is the essence of dignity. And both the opportunity and the responsibility of design for good and for all." (Cary)

Think of buildings where you have visited, lived, or worked. How did you feel in those spaces? Were you at a theater where men quickly entered and exited the men's restroom while the women's had a line that snaked out the door and barely moved? Did the architect not realize that women need to practically undress to use the facilities and therefore need many more stalls, while men do not?

In an absorbing TEDTalk, John Cary posits that architects, like himself, are mainly white and male, and design for people like themselves. Buildings are sensory: their design signals people how to feel and what to expect. When architects design without regard for the experiences people will have in their structures, people feel devalued, out of place, and powerless. Cary says that human dignity and design are uniquely related and no one should be excluded from the enjoyment of experiencing buildings designed with them in mind.

When architects and designers are focused on the people who will use the spaces they design, regardless of how disadvantaged they may be, wonderful results are possible as in this example that Cary relates:

> "…Gregory {is} a resident of this cottage community designed specifically for the 50 most chronically homeless people in Dallas. Gregory had been living on the streets, drifting from town to town for over 30 years. A broad coalition of social service agencies, funders and designers, created this place. Each 400 square foot cottage is designed beautifully as a permanent home. Gregory now has a key to a door to his own house. He describes the sense of security that it brings him. Something he had lived without for three decades. When he arrived with little more than the clothes on his back, he found everything: from a toaster, Crock-Pot and stove to a toothbrush and toothpaste waiting for him. He describes it simply as heaven."

Clearly, buildings that focus on how they will be used, and by whom, serve an important need. Cary calls for his fellow architects and designers to diversify their approach to design to be inclusive in their work and support the needs of their buildings' users. When users needs are analyzed, understood, and incorporated into architectural specifications, they will be happier, healthier, and higher performing.

Creating Community

The process of community planning can either bring people together or push them away. This was a prime consideration after the devastation of hurricane Katrina. People in New Orleans have strong community connections. Architects and planners had to renovate and rebuild and also consider the architectural features of homes that encourage community such as porches and front stoops where people can get together. (PDH Academy)

Are you familiar with **Habitat for Humanity**? This is an international non-profit that "…helps families build and improve places to call home. We believe affordable housing plays a critical role in strong and stable communities." Applicants must

demonstrate a need for adequate housing and be willing to live in a location where a Habitat community is being built, among other requirements.

In this program, housing recipients choose among a selection of home models that they will be able to afford and maintain, and then help build them—called 'sweat equity'—along with volunteers and construction professionals. As we know, when people can choose a solution (a new home) and then work to implement the solution (help build it), their commitment to follow through (maintaining their new home) is greatly increased. As they work alongside their soon-to-be neighbors, they create a new community and realize the shared vision of a safe, inviting home for their families.

As Habitat for Humanity says, "We build strength, stability and self-reliance through shelter." The organization's process sets up the owner-builder recipients for success in their home and work lives.

Process Design and Improved Performance

Let's bring this discussion down to a more personal level. Consider:

- How might the work you do improve the performance of your co-workers and customers?
- What do you see in your workplace that helps or hinders your productivity?
- What about the productivity of your co-workers?

- If you set a goal to increase your own performance, what changes would you make in your workplace, home, or the built space where you spend most of your time?
- If you could do only *one thing* at work to increase your performance, what would that be?

Summary

Americans spend 90 percent of their time indoors, surrounded by architecture. What then, does architecture do for people? Both building architects and performance architects produce results that help people perform better. Among other benefits, building architecture has the power to improve the performance of people at home, in the workplace, in civic buildings, or anywhere in the built environment. When designed specifically for the people who will use the structure, architecture can:

- Enhance learning
- Improve productivity
- Improve wellness
- Increase human dignity
- Create community

The two architectural components that have the strongest influence on the performance of people are natural light and fresh air. Architects today are finally paying more attention to designing healthy buildings, or leading a LEED-certified project. High quality light and air encourage personal well-being and good health,

both important ingredients for productivity and high performance. All people, regardless of their station in life, should have work and living spaces that give them dignity and enable them to perform at their best.

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