

Designing for Collaboration

Implementing the New Scientific Workplace Framework

The laboratory is much more than a building filled with scientific instruments: it is a place where minds come together to innovate, discover, and create solutions to pressing issues. A suboptimal workspace can hinder collaboration as well as productivity, and a workspace that includes laboratories has specific needs. The new Scientific Workplace is a framework that emphasizes **connection, community, and biophilia**, can be implemented to create a workplace that fosters collaboration and creates a space where scientists love to work. The new Wacker Innovation Center and Regional HQ (Wacker) in Ann Arbor, MI, exemplifies this model through its expression of three key design considerations.

1 CONNECTION – Facilitating Interaction In and Out of the Lab

Dedicated lab spaces are often thought of as isolated from the rest of a facility, in many cases simply due to the necessity of containing highly sensitive experiments. There

is an understanding that areas of a lab may be closed off in a physical sense, but by incorporating design elements such as glass connections, it leaves the space open for greater visibility and idea sharing. At Wacker light penetrates deep into the structure via large windows, transparent walls, and skylights. These transparencies serve to create visual connection from technical work areas outside the lab into the laboratory and the outdoors (see fig 1 and 2). Staff can see and be seen and easily interact with one another. Movement inside the lab is managed via a service corridor behind the lab (allowing larger items and materials to be moved cleanly and minimizing disruption or safety issues).



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2 COMMUNITY – a Balance of “Me” and “We”

Fostering team collaboration relies on positioning lab spaces centrally where there is easily accessibility from all departments. Part of the process in design is analyzing data about staff connections, which informs how colleagues interact and therefore opportunities to create grouping workspaces. The layout of Wacker balances varying levels of activity and interaction by structuring them into three bars, placing the highly focused laboratory space at the back of the facility with views of the abutting forest, layered by the technical workspace and entry/lobby space in turn.

The entrance to and exit from the lab occurs via the technical workspace – allowing free access between the two areas without impeding lab activities or material movements in the service corridor at the back of the lab. This strategic access helps ensure safety while allowing easier

access to the labs, allowing for, and maintaining certain levels of interaction (see fig 3, 4, and 5). Together, the entry/lobby area to the facility and central technical workspace “bar” balance the need for “me” and “we” space, fostering community by placing the noisy, active shared amenities closest to the entry and exit, funneling users through these areas to gently inspire interaction. The buildings amenities also encourage collaboration and relationship building by presenting further opportunities for interaction or flexible work. Wacker includes a gymnasium with foldable walls to accommodate large gathering, a full-service cafeteria with an outdoor patio, and a large café with a high-end luxury coffee maker (never underestimate the power of food and drink for drawing people in and acting as a social facilitator).

The interior technical workspace is also community driven, emphasizing collaboration with a design emphasizing a diminished sense of hierarchy in favor of a conscious dedication to team, projects, and products thinking. The space is conscious mix of open and closed conferencing, single workstations, group workstations, and private offices emphasizing workspace, research and development, and team gathering. These three combined create a wide mix of working typologies for people to utilize



(particularly younger professionals seeking a flexible environment), and a variety of meeting areas that encourage meetups and grouping, and the large contiguous floorplate and open design of the lab and workspace allows for a high degree of future flexibility to support continued collaboration.

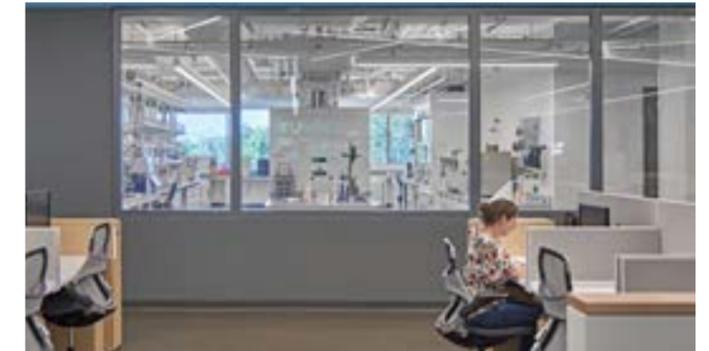
3 WELLNESS - Introducing Biophilia, Nature & Art

The goal of the new scientific workplace design framework is to look at laboratory design as an experience, rather than a location, where the scientists can find themselves healthier, more productive, and thriving in a workplace that supports them. One way this design was informed was by having conversations with staff members about what they need to improve their day-to-day experiences and collaboration. Unsurprisingly, biophilic elements that emphasized a connection to the outdoors were paramount. At Wacker, someone in a lab can look up and see the trees, the sky, and feel a greater sense of connection and wellness that you don’t get in a windowless room. It’s simple but is often overlooked in scientific environments that when people feel better, they’ll feel more connected and comfortable collaborating. At Wacker the building backs against a forest with large windows, providing views and huge amounts of natural daylight (some interior spaces are enclosed to protect certain materials and intellectual property). Windows are strategically placed across the exterior and roof to bring in as much daylight as possible to assist with circadian rhythms. Security is ensured by placing the building back on the site and controlling access through the front only, keeping the social and public areas concentrated there.



The space is highly influenced by nature and biophilic elements, with a color palette inspired by the four elements, flowing through to create a sense of visual connectivity via the color scheme. The interior design emphasizes plants and art installations, featuring blown glass sculptures also inspired by the four elements. The light fixtures in the common areas mimic the limbs of the surrounding trees, extending the sense of the outdoors coming in.

Designing a scientific workplace is unique in its challenges and requirements, but not in its end goal: to produce an enjoyable experience for users that enables them to perform at their best. **The “Divergent Lab” concept allows us to discuss lab space as a platform for innovation and discovery.** Often, technical spaces are boiled down to their code and technology requirements. These are of course essential to a functional lab and support space but miss the key human element that creates the innovation. **Lab space does not exist in a vacuum, it is part of the ecosystem of the building and environment.**



By centering on the user experience, enveloping considerations of connection, community, and wellness into the design response, the Wacker Innovation Center and Regional HQ is well positioned for a culture of innovation and collaboration, but the same tenants apply to any scientific workplace.



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