



3 common wayfinding mistakes that undermine architectural projects and how to avoid them.

If you're like many architects, too often you find your projects are compromised at the final stages of construction by the installation of a plethora of signage that creates visual clutter, clashes with your architectural vision, and duplicates wayfinding cues you have already embedded into the space.

Nobody wins in this scenario. The architectural experience fails to live up to its full potential, the beauty of the space is diminished, the cost of operations increases due to inefficiencies, and your end-user experiences a space that is confusing and inaccessible despite the barrage of signs.

It doesn't have to be this way.

Right: Clear sightlines at the Stuttgart Public Library help users to understand the space and plan their journey.

Below: At the Kiasma art museum in Helsinki, architects specified contrasting finishes to draw users' attention.



MISTAKE #1: RELYING ON SIGNAGE ALONE

When a wayfinding system is implemented using only signage, the results usually aren't pretty.

Where a wayfinding system relies on signage alone, the only way to differentiate areas is by using a complex system of colours and symbols, simply to provide the memorable and distinct wayfinding cues that the architecture isn't providing.

The usefulness of signage is constrained by the limits of our short-term memory, because users must remember a sign's contents after they walk away from it. Trying to solve every wayfinding issue with a sign only results in diminishing returns as the environment becomes increasingly cluttered. No amount of signage will reassure users if the architecture gives the opposite message, or no message at all.



At one major Ontario College, a large scale branding and signage initiative was completed that gave the institution a bold new look. However in the end they discovered that even with the vast array of new signage, they still were left with a confusing environment where users regularly found themselves lost.

What they seem not to have understood is that wayfinding design is about far more than placing signs on a wall. In fact, 'wayfinding' originally had very little to do with signage. The term was coined in 1960 to describe how people navigate by identifying pathways, destinations, districts, nodes, and landmarks.

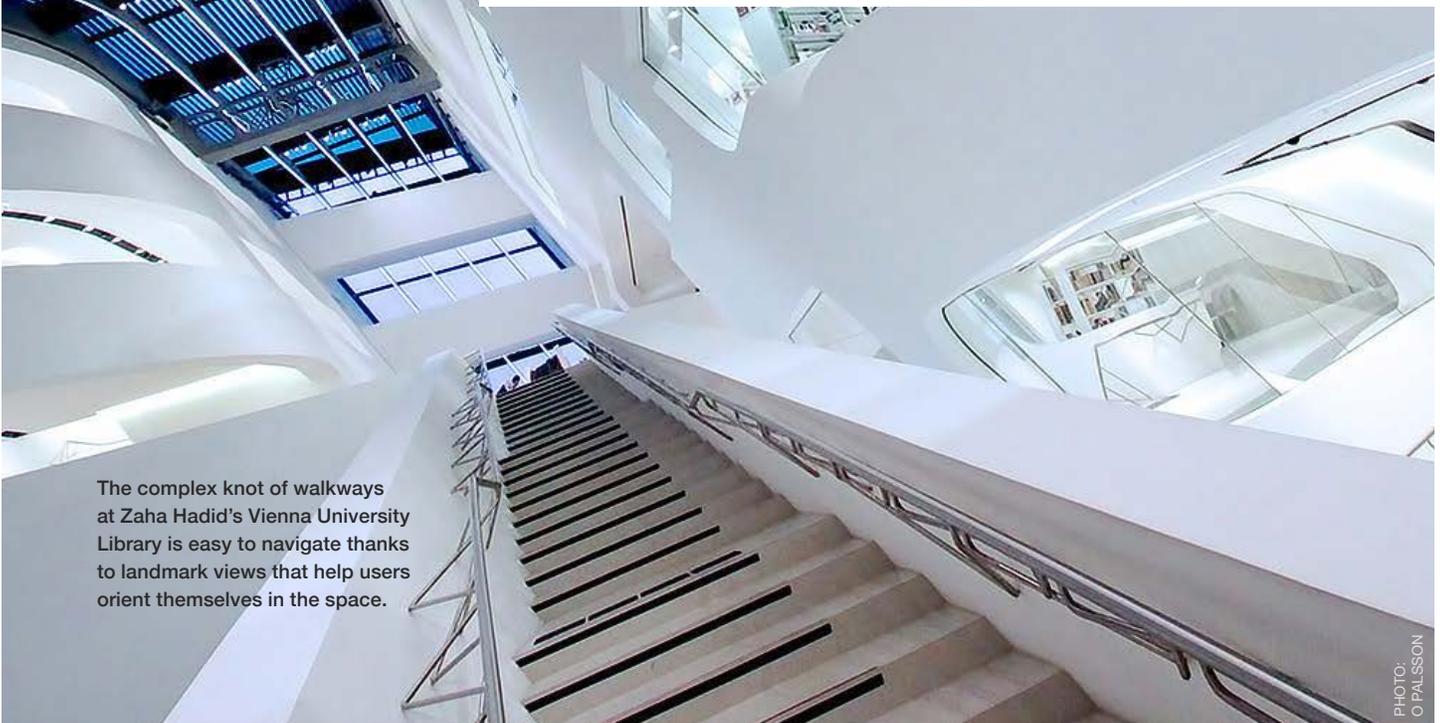
The tools at our disposal to craft truly successful and effective wayfinding include surface treatments that distinguish one area from another, public art to create memorable landmarks, landscaping to channel users in a particular direction, lighting and sound for subconscious cues, and digital technologies that respond to the needs of each user.

No amount of signage will reassure if the architecture gives the opposite message

A holistic approach is a much more effective means of wayfinding because it better responds to the ways our brains naturally construct mental maps to understand and navigate our surroundings. Cognitive maps were first theorized in 1948 when lab rats navigating a maze were later observed using shortcuts "as if the places they remembered were recorded in a map-like form". In 2014, three Swedish neuroscientists discovered the specific 'place cells' and 'grid cells' where our brains actually store memories of an environment and construct our mental maps.

By integrating a full range of coordinated environmental and visual cues that trigger this innate orientation system that everyone possesses, we can create the most robust and powerful wayfinding system possible, and place it at architects' disposal.

Given the inherent limitations of relying signage alone, it's clearly an approach that is simply not enough.



The complex knot of walkways at Zaha Hadid's Vienna University Library is easy to navigate thanks to landmark views that help users orient themselves in the space.



PHOTO: OLIAS.D

MISTAKE #2: UNDERESTIMATING THE COSTS OF POOR WAYFINDING SOLUTIONS

Ineffective wayfinding systems are missed opportunities that carry real costs for the architect, management, tenants, owner, and the users.

Wasted time has long been directly attributed to poorly integrated wayfinding systems. The business case analyses for wayfinding systems in Toronto and London revealed that the costs of users being lost and the perceived extra length of a journey without wayfinding aids can add up to thousands of hours per year.

There is a growing body of evidence demonstrating the benefits of good wayfinding planning. One shopping centre experienced a 41% increase in foot traffic that translated into measurable sales growth for 4 out of 5 stores. At a hospital network in Australia, an upgraded wayfinding system brought 70% fewer complaints as well as fewer missed appointments and less staff time spent giving directions.

A building's reputation is built on how easy it is to navigate.

A wayfinding system that goes beyond only signs can result in significant maintenance savings (due to the lower number of signs required), can provide flexibility to adapt to changing needs, and can establish a less stressful work environment for staff. Less quantifiable but equally important are the effects of

poor wayfinding on the perception and brand of the building. In an age when every user can broadcast their experience on social media, a building's reputation can quickly be built on how easy it is to navigate.

A coherent and legible building with a reputation for enjoyable spatial experiences is a key aspect of the tangible value that architects can offer their clients.

At the Antwerp-Central train station, lighting is the primary tool the architects used to identify the elevators. Signage plays a secondary role.



MISTAKE #3: LEAVING WAYFINDING DESIGN UNTIL THE END

Wayfinding consultants are often only invited to join a project at the final stages, once the floor plans are finalized and construction is underway.

At this point, the only thing left is to design and locate signs.

This represents a huge missed opportunity. In this situation, the architectural space hasn't been fully programmed to accommodate the anticipated user circulation flows. Communication layers and orientation cues haven't been embedded into the architecture. Users will notice that wayfinding information feels tacked-on and not integrated with its surroundings. Critical elements are missing and the wayfinding system may end up fighting against the architecture, rather than integrating with it.

Ideally, at the early stages of the project the wayfinding consultant will work in partnership with the architect and the client to assess the anticipated user needs. The resulting user experience map will identify functional issues that the architectural design needs to address. This process can provide insight and guidance for the design to create more legible and coherent environments that can be navigated intuitively. Additionally, we can take advantage of users' lifetime of expectations about how buildings should work, for a predictable user experience that rewards users' educated guesses as they navigate.

Take advantage of users' lifetime of expectations about how buildings should work

This isn't a new idea. For centuries, the elements of architecture served as a universal wayfinding system, without the need for what we would consider 'signs'. An effective wayfinding approach follows this tradition by embedding cues into the fabric of the building itself. To do this successfully, it cannot be left until the end of the architectural process.

New York's Guggenheim Museum is an excellent example of an architectural UI. The spiral ramp guides users past each point of interest, and the open atrium lets users survey the entire space.



Above: Graphics are fully integrated as a key element of architectural UI at the 222 Jarvis tower in Toronto.

Wayfinding is where architecture and user experience intersect.

Instead of relying only on signage to provide all of the necessary wayfinding information, we've made the case that the architecture itself can communicate information that provides orientation and leads users to and from their destinations. How? By looking at the built environment as a user interface (UI) that can be programmed with integrated wayfinding cues.

The art of designing user interfaces rose to prominence with the advent of personal computers. Today, the familiar graphical user interface of icons and windows exists alongside speech-based user interfaces such as Siri and gesture interfaces such as Nintendo Wii and Leap Motion. User interfaces exist beyond the digital realm as well: wherever people interact with a product, a system, a service, or even a simple doorknob, a UI mediates and enables the experience.

User interfaces are, in essence, tools that designers use to influence and facilitate human behaviour. Architecture is a powerful and largely untapped user interface, capable of shaping user experiences and ready to be programmed with wayfinding information.

This is the added value that architects can offer to their clients. By embedding wayfinding cues in the fabric of a building using an architectural UI, you can avoid the missed opportunities that often compromise projects and result in poor user experiences.

Taking this approach of creating an Architectural UI is a process that can be easily integrated into the way you already work:



Above: A memorable threshold serves as a landmark and helps users to differentiate one area from another, at Seattle's EMP Museum.

Challenge your client to consider the building's purpose and who the users will be.

A profile of the building's primary and secondary user groups will allow you to customize the wayfinding system to meet each user group's unique needs.

Engage a consultant to capture the user experience your client is seeking to create.

Wayfinding consultants should holistically analyze the entire experience, from the time a user approaches the site to the moment they arrive at their final destination.

Ask your wayfinding consultant how the architectural UI can be tuned to fit the building's purpose.

During the Schematic Design Phase, your wayfinding consultant should review the plans and identify areas where the architectural UI can be further tuned to best fit the building's purpose, its users, and the ways they will move through it.

Map out the 'flows' and seek to understand how the building will work for its users.

Conduct circulation planning during your block diagramming exercises to reveal ways to clarify paths and decision points using the architectural UI, rather than relying on signage alone.

These steps are just the beginning; leveraging the UI knowledge of wayfinding consultants can provide substantial value to your clients and can help your services and deliverables to stand out from the crowd.

When architects and wayfinding consultants join forces at the earliest stages of a project to establish an architectural UI, buildings require fewer signs and encourage users to explore and enjoy their surroundings. Good wayfinding happens when architects and specialists work together to create spaces that are intuitive, legible, integrated and delightful to explore. ■

Want to know more?

Visit forgemedia.ca and call Gregory Neely at [416.533.3674](tel:416.533.3674) to discuss how we can help you build a powerful architectural UI.

About the authors



Gregory Neely
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Greg has devoted 20 years to directing immersive and effective experiential design solutions. His user-first approach has been successfully applied to projects across North America and beyond.

A key contributor to RGD Ontario's Accessible Design Handbook, Greg is a passionate advocate for leveraging innovative wayfinding strategies to create universally accessible environments.



David Kopulos
Wayfinding Strategist

David is a planner, designer and writer who combines the best practices of design with a deep understanding of how people find their way.

By augmenting environments with the wayfinding cues people are looking for, David creates cohesive, seamless user experiences. As a postgraduate researcher he developed a new model for wayfinding systems that empowers users to collaborate with designers and share their knowledge.



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Forge is a UX agency that engages your audience and builds your reputation through unforgettable environments.

Through the integration of smart thinking and truly innovative design, we help spaces communicate with users, while maintaining the integrity of the architectural vision. We have designed ground-breaking experiences for major clients across North America, including Four Seasons Hotels & Resorts, Phoenix Sky Harbor International Airport and the Comcast Innovation and Technology Center.

Working with top architects and interior designers, Forge is recognized as a leader in the industry and a reliable source for unconventional solutions that elevate the user experience. Our work spans a wide range of sectors, from sophisticated hospitality spaces to complex institutional environments, but our approach remains the same: focus on delivering intuitive spaces that are a pleasure to explore.