Case Study:
BOLLES+WILSON

NEMETSCHEK Vectorworks

# BOLLES+WILSON:
# INVENTIVE DESIGN
## YIELDS EXTRAORDINARY RESULTS

*Established in London in 1980 and based in Münster, Germany since 1989, BOLLES+WILSON is known for understanding architecture "as a symbiosis between the ordinary and extraordinary." It's this approach that has enabled the firm's global recognition and involvement in award-winning projects in Japan, Australia, and Europe. More recently, the firm attracted attention with two distinct projects in The Netherlands and Germany where they combined a city hall with a multiplex movie theater in Haarlem and capped a furniture distribution center in Münster with a shallow rooftop lake.*

The formidable leadership and design skill of founding partners Prof. Julia Bolles-Wilson and Peter Wilson have guided the firm to achieve results that enhance the cultural and urban context in which their works reside. They creatively invent spaces with a distinctive and unique character based on their expertise in residential, commercial, retail, public, and interior architecture, as well as product design, and urban and landscape planning. Supporting the founders is a team of 20 whose roles range from architects and draftsmen to administrative and construction management staff, as well as student apprentices.

## A Town Hall and a Movie Theater Under One Roof

A town hall and a multiplex movie theater may not seem the ideal partners; however, you can find this combination in Dutch Haarlem at the Raakspoort Project thanks to the involvement of BOLLES+WILSON. The 18,500-square-meter complex's functional mix of local government headquarters and a cultural center rises like a monument amid Haarlem's ancient gables, yet it blends with its surroundings perfectly to create a symbiotic combination.

"You cannot systematize our approach," said Wilson, explaining the firm's design methodology. "We believe that you have to study the site and then let the design idea mature." This tactic clearly works. In fact, the Melbourne-born Wilson received the highest award from the Australian Institute of Architects, the AIA Gold Medal 2013, which recognized his role as an exceptional representative for Australia, as well as his outstanding life's work and architectural products. His partner, German architect Bolles-Wilson, echoed the sentiment about giving good ideas time to mature. In fact, she said it took more than 10 years to evolve from the considered urban master plan through a sequence of workshops and program rethinks to the final ensemble, which opened in October 2011.

*Partners Peter Wilson and Prof. Julia Bolles-Wilson achieve results that enhance the cultural and urban context in which their works reside. Photo ©Thomas Rabsch.*

*The Raakspoort Project blends with its surroundings perfectly to create a symbiotic combination. Photo © Christian Richters Photography.*

BOLLES+WILSON participated in this dense and highly urban neighborhood renovation from the beginning and experienced the constant refinement of the building's use and function. For example, initial plans called for an eight-screen movie theater on the top levels with an underground casino and parking for staff. After much debate, the theater and casino locations reversed, and then the casino was scrapped from the project and replaced with a town hall. This change enabled the designers to insert windows into the brick façade that would give a traditional scale rather than the closed box of an entertainment venue – a suitable change that functions well within its contextual surroundings and creates visual interest. The final design features recycled arches, carved stone, and sculptures to animate and connect the building to the street. There's also a clock tower and a brick skin that looks like shadowy, woven fabric articulated by two different mortar colors.

When designing projects such as Haarlem's Raakspoort, planning on the computer follows the idea, and Vectorworks® Architect software was a constant assistant over the multi-year project and planning phases. The staff at BOLLES+WILSON appreciated how the program helped them create compelling presentation drawings and layouts, as well as sophisticated, technical designs.

"We classify our projects in a standard and clearly organized structure on the server," said Axel Kemper, an architect at BOLLES+WILSON. "That way, everyone in the office can quickly and easily find the files they are looking for. Having the smallest possible number of planning files makes the work efficient. Plus, Vectorworks offers great possibilities, especially for surfaces with raster image fills, transparencies, and shadows."

*A town hall and a multiplex movie theater make ideal partners in Dutch Haarlem. Photo © Christian Richters Photography.*


*Vectorworks Architect software was a constant assistant during the development of the Raakspoort Project. Image courtesy of BOLLES+WILSON.*

Kemper enjoys the embedded texture options within Vectorworks Architect software. For the Raakspoort Project, he recalled, “We were able to represent the brick façade very realistically by manipulating Vectorworks textures. When you now see the finished building on the site, you have the feeling that the drawings were implemented on a 1:1 scale.” The result is a distinctively charming surface that adds an earthly quality to the overall architecture and for which BOLLES+WILSON earned the Brick Development Association’s Worldwide Brick Award 2012 for its innovative details.

## The Importance of 3D

Such high-caliber work takes root within the firm’s offices where employees enjoy a great view of Münster’s harbor, which has been completely renovated over the past decade. BOLLES+WILSON was involved in this redesign. Following the example of former warehouses, the firm built two office buildings along the quay. One building partly functions as their office and the other was designed for a local insurance company. The exterior features a colorful, anodized metal façade with fixed windows and slim openings for ventilation.

Indoors, one finds an open plan with expansive ceilings without lights or smoke detectors. “This blank slate promotes a feeling of wandering freely from the inside to the outside,” said Bolles-Wilson. “We installed direct/indirect lights that reflect off the ceiling. It works well.”

Within this environment, BOLLES+WILSON employees constantly improve upon their design planning techniques, so potential clients can best picture their intended results. Vectorworks Architect offers the possibility to build, based on a 3D model, any other 2D and 3D representations, as well as update and further develop those representations constantly during the process.

“This workflow suits us well, especially because 3D is increasingly gaining in importance for us for the networked, automated generation of views and sections,” said Stephanie Eickelmann, an architect and public relations director at BOLLES+WILSON. She adds that the firm is working toward more intensively exploiting interfaces among Vectorworks, its embedded rendering application Renderworks®, and CINEMA 4D software, a 3D modeling, animation, and rendering application developed by MAXON Computer GmbH.


*The office of BOLLES+WILSON features a colorful, anodized metal façade. Photo © Rainer Mader.*

*Visitors to the upper floors of the RS+Yellow building experience an element of surprise upon on discovering a beautiful lake on the rooftop. Photo © Markus Hauschild, www.hauschild.biz.*

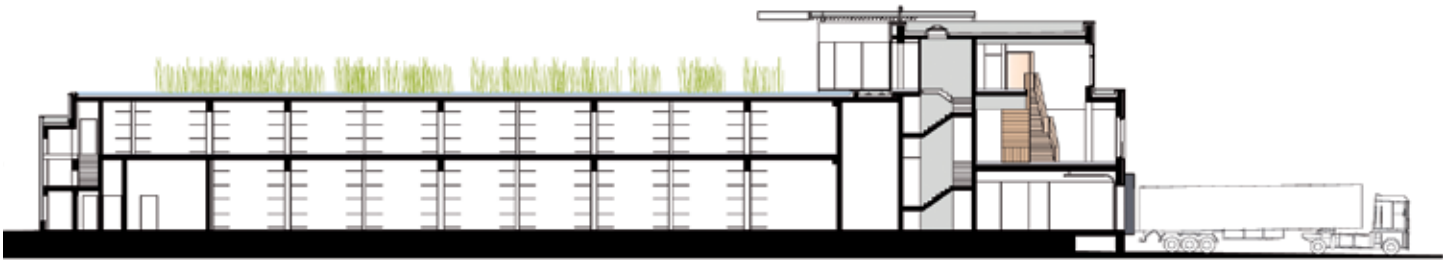
## A Rooftop Lake

While much of BOLLES+WILSON's work stretches across borders, they often engage in local work like the Münster harbor redevelopment. Another recent example is the commission for a storage and distribution center for the German furniture chain RS+Yellow. For this project, the architecture firm orchestrated a marriage between a warehouse and a rooftop lake.

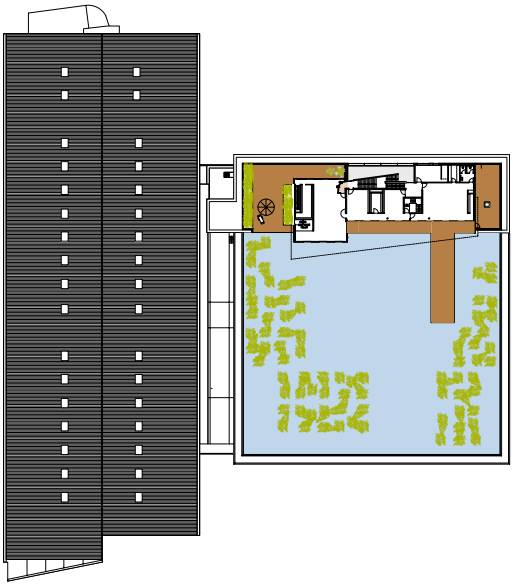
The warehouse's façade attracts initial attention with bold, vertical strokes of brown and grey. "It wasn't about making a beautiful combination of colors, though," explained Bolles-Wilson. "Rather, it was about listening to the client and what gestalt effect he wanted to engage his own furniture customers." One of those wishes included setting the flat rooftop under water, so that onlookers visiting the building's upper floors would experience an "aha moment" – an element of surprise upon discovering a beautiful lake.

"The last thing you want as an architect is to have water on your roof," Bolles-Wilson recalled. "But the client was set on this idea, so we did a lot of research about the consequences of wind and designed a well-functioning lake for him. This research was important because, as an architect, we study the opposite – how to keep water off a roof."

The end result is a 50x60-meter pool with a depth of 15 to 20 centimeters whose edges are leveled so precisely that they cannot be seen. The water, therefore, seems to be cut at the edges. Underwater elements form segmented basins, limiting the development of waves during storms and ensuring the water does not overflow all at once. The façade of the office area facing the roof lake was built completely out of glass, blending the outer and inner areas. In front of the large glass façade, a wooden deck expands as a large wooden terrace, projecting into the lake.



*The design, articulated in Vectorworks Architect software, demonstrates the hidden potential in very normal, industrial buildings. Image courtesy of BOLLES+WILSON.*



*A wooden deck expands as a large wooden terrace, projecting into the 50x60-meter lake with a depth of 15 to 20 centimeters. Image courtesy of BOLLES+WILSON.*

"This project demonstrates the hidden potential in very normal, industrial buildings," said Bolles-Wilson. "We could have collected energy or built a green roof on the flat, empty roof space, but instead, we did something a little bit crazy. People can't help but stand open-mouthed when they see the lake for the first time. It's risky to think outside the conventional box, but it's worth it. One feels like this can't be Münster; it must be somewhere outside the known world. It's very uplifting."

Bolles-Wilson isn't alone in her assessment; the firm has received several awards for this project, including the German Façade Award.

## A Successful Design Strategy

Throughout its history and evident through these projects, BOLLES+WILSON has remained faithful to blending innovative design with individual solutions that pay careful consideration to their cultural and urban contexts. Adhering to this philosophy continues to produce conceptually innovative and delightful architecture.

"As architects, we have the possibility to physically change the world with the objects we bring into existence," said Wilson. "Therefore, we feel an obligation to step outside conventions and expectations to deliver an element of surprise, an engaging architecture."

This is precisely what they're doing at BOLLES+WILSON, and the team continues to test ideas that blend the ordinary with the extraordinary to enable a new range of possibilities.

## Acknowledgements

**Profiled firm:**
BOLLES+WILSON GmbH & Co. KG
Hafenweg 16
D-48155 Münster
Germany
Phone: +49 251 48272-0
Fax: +49 251 48272-24
Email: info@bolles-wilson.com
Web: www.bolles-wilson.com

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Nemetschek Vectorworks, Inc.
7150 Riverwood Drive
Columbia, MD 21046 USA
Phone: 410-290-5114
Fax: 410-290-8050
www.vectorworks.net

**Text developed in collaboration with:**
ComputerWorks GmbH
Schwarzwaldstraße 67
79539 Lörrach
Germany
info@computerworks.de
www.computerworks.de

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