

Over the Wall

A new report on prison design shows the benefits of collaborative research between architects and environmental psychologists. Why doesn't it happen more often, ask the authors, Lily Bernheimer and Roland Karthaus?

Collaborating over the past year to research the report 'Wellbeing in Prison Design', our interdisciplinary team identified a simple, cost-effective design solution: the housing blocks in Britain's newest prison, HMP Berwyn, are laid out roughly in the shape of the letter K, as has been common practice for decades. Prisoners and staff complained that the awkward spaces this created between buildings were intimidating and unsuitable for athletic activities — a key factor in the wellbeing potential of living spaces like prisons. Laying housing blocks out in a cross formation, we discovered, could create more usable outdoor space while allowing bedrooms to look out onto a lawn or the Welsh countryside, rather than another prisoner's window. This is an asset known in environmental psychology as 'prospect', which has been demonstrated to support rehabilitation and speed up recovery in hospital settings. So why don't architects and environmental psychologists collaborate in this way more often?

Architecture is about shaping spaces to provoke positive responses in the people that use them, while environmental psychology is about understanding how people respond to their surroundings. Architects are taught to use their intuition in the design process, because people's responses are not simply rational. In many ways, this artistic underpinning is what separates architecture from engineering and building, which are essentially rational processes. But what environmental psychology has begun to show is that people's responses to their surroundings can be logically explained, if we look back far enough. Many responses, such as the desire for prospect, are evolutionary measures that helped us survive in the wild over millennia. Our relatively recent shift to urban living has happened too fast for evolution — our bodies and minds haven't caught up, and we still respond as if we were in a natural environment. But neither has our design knowledge kept pace with urban development, so we spend a lot of our mental energy coping with the confusing and contradictory spaces we now inhabit.

Architects are protective of their special ability to apply art to engineering and construction. And as a young branch of psychology drawing on interdisciplinary data, environmental psychologists have struggled to demonstrate their field's legitimacy. As two 'outcast' disciplines, however, we have more in common than separates us, and no architect should fear the light that environmental psychology can shine on the value of designing with sensitivity to human psychology.

Our applied research project on prison design proved the ideal vehicle to test out this potential collaboration. We chose to study prisons because they provide fertile ground to explore this collaborative process. Prisons are such extreme environments that even modest improvements should have significant benefits for the people that experience them. Our process alternated between working independently — so that we would not cloud each other's judgement about what evidence was relevant — and working collaboratively, especially in the design and implementation of the user surveys that we undertook in HMP Berwyn. In our final report, we aimed to establish a framework for connecting relevant evidence from environmental psychology to specific measures in the design of prisons. But it is equally important to understand that these measures are inputs into the design process, not substitutes for it.

On one level, environmental psychology evidence confirms the things that architects already know: that designing to optimise natural light, fresh air and views is important to wellbeing. But as these measures are often compromised through the procurement process, quantifying their benefits can help architects make the case for their inherent value. The greater collaborative benefits come from applying environmental psychology research techniques to study and tweak how these complex factors play out in specific spaces. Products like cars and websites are never put into use without extensive user testing and fine-tuning. Why do we not do the same with our buildings? ↗

Below

Spatial analysis of typical modern prison cells, with limited outlook and cramped, uncomfortable spaces.

'Wellbeing in Prison Design' can be downloaded at matterarchitecture.uk

Below right

Interior and aerial view of K-shaped blocks at HMP Berwyn, Wrexham (phs: HMP Berwyn).

