

When Passivhaus reached nuclear shelters

On 28 December 2016 we published an April fool about atomic bunkers certified to Passivhaus. Like every good joke, it rested on a kernel of technical truth.

This entry began as an April fool, published on 28 December 2016, the Catalan Day of the Holy Innocents. It is worth saying so from the first line to avoid any confusion: what follows is a fiction written with humorous intent. Even so, the premise was not entirely absurd, and it repays a second reading with the perspective the years have given it.

The joke: Passivhaus construction reaches nuclear shelters

Building nuclear shelters has grown popular among a segment of the population who, when raising their own home, also prepared a space to survive in an emergency. The April fool imagined that the Passivhaus standard was reaching this type of construction and that new shelters were beginning to be certified under the seal.

Since these are underground buildings, the piece pretended that the Passivhaus Institute had been forced to define the specific characteristics such a typology would have to meet. The code name attributed to this supposed climate was "Nuclear climate", said to contemplate various specific scenarios. The joke went further and described a proliferation of companies in just five years: from those already building atomic bunkers who decided to adopt the standard, to Passivhaus specialists expanding their activity toward shelters.

Spectacular growth, said the fiction

The text attributed that imaginary surge to the insecurity of the moment: the war in Syria and the refugee crisis, the rise of the far right in Europe, Brexit, and Donald Trump's arrival at the presidency of the United States. The irony was twofold, because the incoming president held the nuclear button in his hands and had shown himself sceptical of climate change.

The technical grounding that made the joke plausible

This is where the April fool touched solid ground. A shelter must be energy self-sufficient and maintain interior comfort and healthiness over long periods, and on that terrain the Passivhaus standard fits naturally. Clean air free of contamination, stable temperature thanks to mechanical ventilation with heat recovery, filtration of the incoming air: these are precisely the mechanisms that make an enclosed space habitable for a long time. The joke worked exactly because the energy logic was no invention.

The same principles that would make an imaginary bunker comfortable are the ones we apply every day in real construction. Balanced ventilation and the airtightness of the envelope are the core of the Eskimohaus system, and also the basis of any well-planned energy retrofit. If you want to understand how that airtightness is demonstrated, the Blower Door test explains it with precision.

PAPIK Group's position

At PAPIK Group we had, and have, no intention of entering the business of building nuclear shelters. What we do celebrate, and it was the sincere heart of that joke, is that the culture of high energy efficiency is spreading to very different sectors. Every time a professional grasps that a building can be comfortable on minimal consumption, the Passivhaus standard gains ground, even through an April fool.

The best satire rests on a technical truth: if a passive house can sustain life underground, imagine what it is capable of above the surface.