



By Jennifer Hogan, REWC, RRO, BARCHSCI, CET, CRE, LEED AP, CERTIFIED PASSIVE HOUSE CONSULTANT
President

The Things You Can't Learn from a Textbook

AS STUDENTS, WE spend a lot of time learning what "should" work. We turn to textbooks to study how heat, air, and moisture move through building assemblies. In the early days of our careers, we continue to pull those books off the shelf to refresh our understanding of material properties, environmental loads, construction practices, codes, standards, testing methods, and typical details. That "book learning" is essential. But anyone who has investigated buildings or observed construction knows that what we encounter in the real world can't always be captured in a textbook.

For example, water has a way of challenging the assumptions we might make based on textbook principles. Once water enters a structure, it does not necessarily follow an expected drainage path. Instead, it can travel (rather sneakily) along membranes, within cavities, across fasteners or structural elements, and through interfaces before showing up as a drip or a stain. Air leakage, condensation, and thermal bridging are just as sneaky as water intrusion. That's why building enclosure projects require investigation, testing, and careful observation.

Technical knowledge tells us what should work; experience teaches us where to look when reality defies our expectations. As we gain experience in the field, we learn to notice small inconsistencies and to instinctively pause when something doesn't quite make sense. We develop a building science "Spidey sense" that may be set off by an unfamiliar material, a small discontinuity in an air barrier, an unusual staining pattern, or an atypical sealant joint. These little details can sometimes reveal significant information about an underlying problem that is not evident in the most visibly deteriorated areas.

Experience also teaches us that we cannot expect design drawings, predictive calculations, or standards to provide every tool that we need to succeed. Consider, for example, whole building air leakage testing. Although industry standards explain how to conduct testing, the written instructions cannot anticipate every practical condition. Testing in an occupied building is particularly complicated. We need to coordinate access with residents, manage exterior doors, account for elevator operations, monitor the weather, communicate across multiple floors,

and recognize when site conditions may be affecting the results. The technical procedure is critical, but so are planning, communication, and cooperation. We inevitably need to exercise professional judgment to apply standards correctly in a given context.

The most valuable experience-based lessons do not always come from one's own time in the field. Throughout my career, I have learned so much from colleagues who have been willing to discuss in detail how they've resolved tricky scenarios they've encountered—not only what they observed, but also why it mattered.

Jon Cannon's session at last year's Building Enclosure Symposium reminded me how we can advance our technical know-how and professional judgment by exchanging ideas, talking through clues, interrogating assumptions, and making our reasoning visible. During his presentation, "No Capes, Just Consequences: A Candid Look at Roof Consulting from the Trenches," Jon examined missed opportunities, changes in scope, coordination issues, and decisions that did not always produce the intended outcome. The session offered something a textbook cannot: the benefit of another consultant's hard-earned experience! By explaining what happened, where the warning signs appeared, and what might have been done differently, Jon allowed everyone in the room to learn from a project they had not lived through.

Jon's presentation was just one great example of how IIBEC creates opportunities to engage, collaborate, and learn. Through IIBEC conferences, webinars, courses, chapter events, and committee meetings, as well as conversations between members, we can master technical information and broaden our perspectives by exploring challenges that others have tackled in the field.

Textbooks explain principles, and standards establish requirements. But these resources are of limited use to someone who lacks professional judgment earned through field-based experience. As we individually strive to build our businesses and serve our clients, let's continue to educate ourselves and our colleagues by participating in the IIBEC community.

CONNECT



Instagram

www.instagram.com/IIBEC2020



Facebook

www.facebook.com/IIBEC2020

X @IIBEC

www.x.com/iibec2020



LinkedIn

www.linkedin.com/company/iibec2020