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Investigative Analysis of Difficult Homes Chris Dorsi and Joe Kuonen ACI Conference • Denver, Colorado Friday May 2, 2013 • 8:30 – 10:00 am

These principles define a mindset of intelligent but cautious inquiry that guides our analysis of the most difficult homes.

Approach

- Don't perform complicated procedures just because you have the tools and knowhow.
- Develop a line of inquiry that follows the principles.
- Learn as much as you can from the occupants or owners. Develop a far-reaching style of questioning that helps them think beyond the solutions them may already expect you to propose.
- Use a process of elimination as you evaluate the home. Consider all the possibilities, and eliminate them one by one based upon your objective observations and tests. The last item standing may be the culprit.

Analysis

- Learn how much detailed analysis is enough. Use your senses first, and don't get out your tools and instruments until you're sure you need them.
- Build a troubleshooting tree for each home. It's worth your time to actually sketch this out for each job, even after the fact. This approach will streamline your work, helping you arrive at correct solutions quickly and without spending too much time in dead-end inquires. Archive these sketches for reference later on.
- Don't get distracted by too many details. Look at one system at a time.
- Beware of identifying minor problems and ignoring the real issues.
- When things get confusing, fall back on the basics of building science.

Education

- Learn about your local climate, soil types, construction traditions, and codes.
- Learn about likely problems for each type of construction.
- Get some hands-on experience that includes working with trades people.
- In the course of your work, be sure to solicit feedback from customers and trades people.
- Use your education, but remain willing to check your assumptions.