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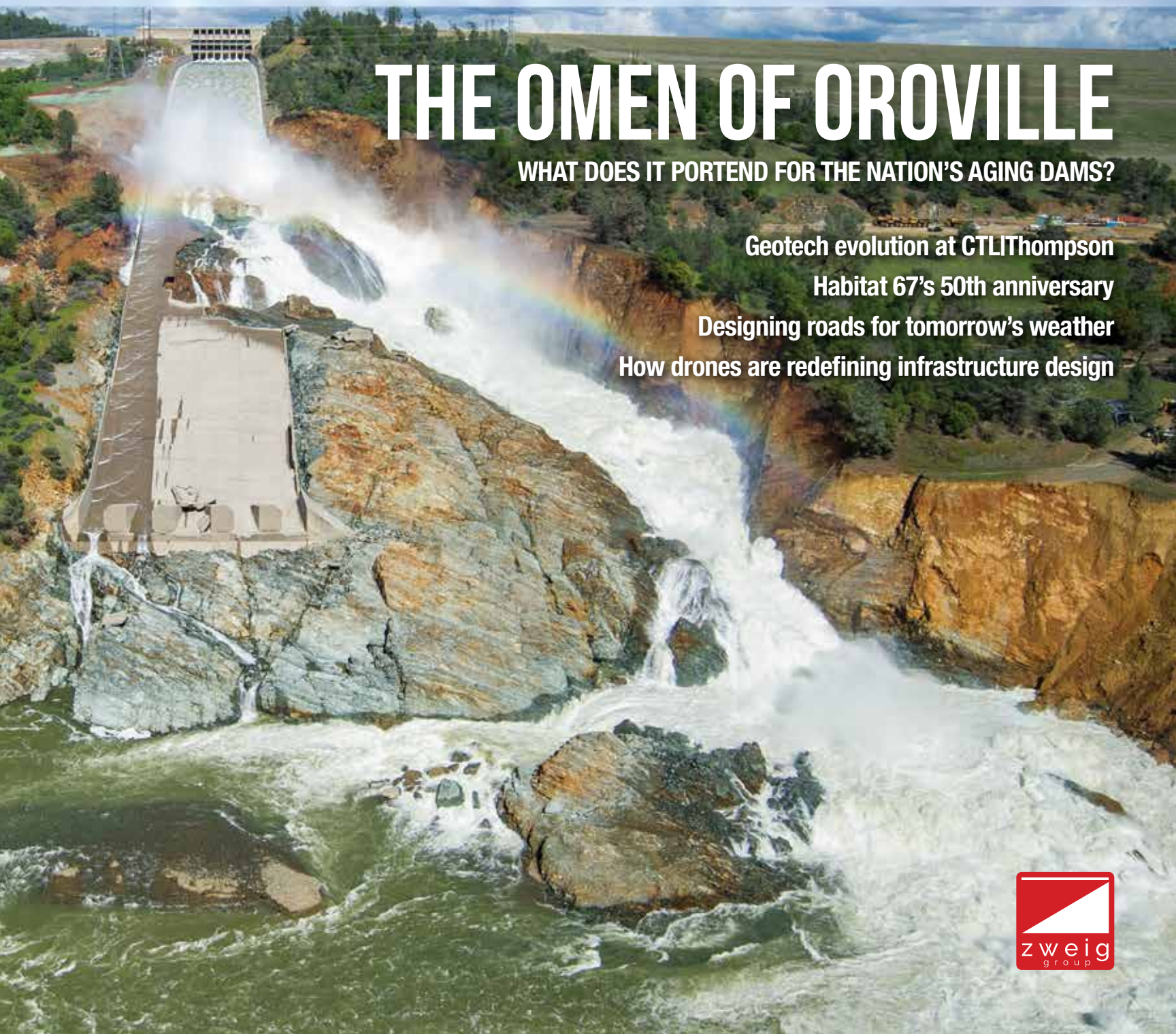
civil + structural ENGINEER

CELEBRATING THE DESIGNERS OF THE WORLD AROUND US



THE OMEN OF OROVILLE

WHAT DOES IT PORTEND FOR THE NATION'S AGING DAMS?

Geotech evolution at CTLIThompson

Habitat 67's 50th anniversary

Designing roads for tomorrow's weather

How drones are redefining infrastructure design

zweig group

NOT LISTENING CAN BE DANGEROUS

Communication is one of the most important aspects of every profession, business, and life.

WE RECENTLY LOST a big project because we did not listen to the client carefully. It was an expensive lesson, so I thought I would share it with all of you.

The client is an overseas investor who owns a large portfolio of buildings on the U.S. West Coast. Our mandate was to better protect an investment from future earthquakes. The investment was a 1960s mid-rise building. This type of concrete construction is one of the most vulnerable and dangerous throughout the world.

We set out to show how deficient the structure is, providing tons of back-up data to prove it. We saw a number of solutions that the client could choose from, but these were somewhat buried in our engineering report and calculations. Our report was filled with engineering jargon and was difficult to comprehend without a structural engineering degree. We didn't clearly articulate a path to the best solution.

This is kind of like visiting the doctor with a broken leg. The doctor gives you an X-ray of your broken bone along with a 100-page medical report riddled with medical terms to read. Everyone knows that a 1960s concrete building does not meet current safety standards. What owners really want to know is how to spend the least amount of money while increasing the safety of the building through a voluntary seismic upgrade. After reading our report, the owner got really scared and we were quickly off the job.

Most of us engineers struggle with good communication. All too often, our reports and solutions are engineering-driven without considering the interests of other disciplines, such as investment, architectural, or sometimes even political and cultural perspectives. To be truly successful professionals, we need to be more like cultural anthropologists or sociologists who understand others' totally different needs.

In the above case, if we had provided a simple executive summary with issues and options along with a recommendation to reduce seismic risk quickly, we probably would have come out as a hero rather than getting kicked off the job. Even now, I'm not sure this client will invest in the seismic safety of this building.

Some say, "Communication or public relations is not a part of engineering and we are not good at it, so we don't do it." I totally disagree. Communication is one of the most important aspects of every profession, business, and life. It determines how our solutions and thoughts are implemented. Eventually, we can craft a safer society because of it. It will make it or break it.

So here is how we should communicate:

1. Listen carefully to what the client is saying or not saying. They are very likely coming from a totally different background than you.
2. Never just present a report; always provide a high-impact oral presentation.
3. The executive summary is often the only thing decision-makers read. Make it count. This piece must be a concise (one or two pages), clear statement of issues, solutions, and actions that can be understood by anyone.

Fail this and your work will not be read or understood — the worst-case approach to getting work. I hope this helps and good luck!

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