

STOP THE WORLD – I WANT TO GET OFF

This short essay won first prize in the 1981 American Society of Civil Engineers annual essay contest. John Huston, a marine engineer, gives an account of the way in which the 'other world' writes as compared with 'real world' practitioners. His message applies as much to building as civil engineering. The essay is reproduced with permission of *Civil Engineering* magazine.

The title of the magazine you are reading is *Civil Engineering*, a world-wide publication. If you are among the uninitiated, the fact that 'world-wide' is in the singular may not bother you. It should though, for there are two worlds in civil engineering – the 'real' world and the 'other' world.

These two worlds are not evenly populated. Of the combined population of both, the 'real' world has 95%. The 'other' world has 5%.

Other-world people (whom I will henceforth call OWP) have little to do with actual, day-to-day civil engineering work. However, they make themselves known by writing profusely about civil engineering.

Real-world people (whom I will call RWP) do the actual work. They don't write much. They don't have time. They are busy working. Even when they do get a little time they would rather spend it in reading about civil engineering. But all there is to read is the OWP writings. The RWP can't understand much of it.

Avoiding professional embarrassment

An example will bear me out. Should the RWP want to add 1 and 1, they would do it by simply saying $1 + 1 = 2$. OWP, however, wouldn't think of doing it that way. For them to add 1 and 1 and get 2 would be unprofessional. They would go at it this way:

Inasmuch as OWP all know that $\text{Ln } e = 1$, and also that $\text{Sin}^2\chi + \text{Cos}^2\chi = 1$, they would say,

$$\text{Ln } e + \text{Sin}^2\chi + \text{Cos}^2\chi = \int_0^1 \chi \, dx$$

However, even this would be too simple for the OWP. They would go further and express it in this manner:

$$\begin{aligned} & \text{Ln } \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n \\ & + \text{Cosh } \chi \sqrt{1 - \text{Tanh}^2 \chi} \\ & = \lim_{n \rightarrow \infty} \frac{n^2 + 1}{2n^2 - n} \end{aligned}$$

Now this, they reason, is more like it. It gives the same answer as the RWP got in

their primitive $1 + 1 = 2$, but in a way that is not professionally embarrassing.

All this makes it rough on the RWP. They can't get any information because they can't understand the writings.

The OWP keep on writing though. Their writings are then placed on shelves. These are thereafter used as references for other OWP writings, which are in turn placed on shelves. This continues, *ad infinitum*.

RWP, when they want to find out anything, still do as they have for ages – try it out in the field or ask some other RWP what their experience has been with it. OWP, however, if asked about it, first have to locate a laboratory. Then they make a series of tests – the more the better. Following this they study and analyse the results and draw some graphs. Then they write a paper or a report. Their conclusion is usually, '... the subject needs further study'.

This is no joke. I know people that

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were in the OW that didn't do it that way, and they were kicked out and had to live in the RW!

Now all of this is not to say that OWP are not useful. Some of them are actually RWP hiding out in the OW. Every now and then one or two of them put out some fairly commendable work and still maintain their OW identity. However, the great majority of the OWP keep up the OW standards.

All RWP know that civil engineering work is done mainly to make money. It is not just to provide a vehicle for technical papers and reports. There is, however, considerable evidence that OWP think otherwise. Here is a striking example of this phenomenon.

Recently some RWP submitted a proposal to a governmental agency for a contractual project that was being administered by OWP. In their review, the

OWP, in turning down the proposal, said 'This proposal was submitted by actual civil engineering people. These types are interested in production and efficiency. They would not be able to investigate the subject rigorously or academically.'

A sorrowful lack of information

It has been my sorrowful experience in more than 35 years of civil engineering to learn that the great majority of the civil engineering profession (95%) is seriously lacking information. It could be made available to them. More emphasis could be placed on the basics, the fundamentals, the readability, the understandability and the how-to-do-it aspects of civil engineering. Wouldn't it be great if the RWP could be given the advantage of all the information that the OWP so skilfully cover up in their writings?

In the far-too-distant past there were RWP who wrote in RW terminology and

subject. For some reason, though, these writers have now nearly all receded. They have been replaced by OWP. As a result, civil engineering writings have now nearly reached a point of complete non-understandability.

In all my writings I've tried to hold my texts to a level that would accommodate the RWP. Being of that group myself, I found no trouble in doing so. At one time I even wrote a book that I hoped would provide some much-needed basic information for the RWP. Recently, however, following a lecture I had just given at a seminar, I was confronted by an RW engineer. He told me that he had enjoyed the lecture, but was afraid he hadn't understood all of it. This was a shock to me, to say the least! There I was, doing just what I had been complaining about all my life – I'd fallen into the OW!

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