InFocus

The Wisdom of Solomon

By Jon A. Schmidt, P.E., SECB

The Old Testament book of Ecclesiastes is a classic work of philosophical literature. The text itself claims to have been written by "the son of David, king in Jerusalem," (1:1; all quotations are from the New American Standard Bible) a teacher who "pondered, searched out and arranged many proverbs." (12:9) As a result, for centuries, tradition has ascribed it to the only man who fits these descriptions: Solomon, characterized elsewhere as the wisest person who ever lived.

The overall theme of Ecclesiastes is the brevity and contingency of life. It emphasizes the inevitability of death and the impossibility of knowing the future, much less determining it. Solomon describes his deliberate attempts to gain an advantage in the world through pleasure, wealth, power, and even religion. He reports the results of his experiments: "I have seen all the works which have been done under the sun, and behold, all is vanity and striving after wind." (1:14) Some might view this as cause for despair, but not Solomon. Instead, his repeated advice is "to eat, to drink and enjoy oneself in all one's labor in which he toils under the sun during the few years of his life . . . for this is his reward." (5:18)

"No matter how good we are at our jobs, there is always the possibility that something will go wrong in spite of our best efforts."

What does any of this have to do with engineering? Well, for one thing, Solomon mentions that his search for meaning led him to undertake a number of ambitious construction projects. "I enlarged my works: I built houses for myself, I planted vineyards for myself; I made gardens and parks for myself and I planted in them all kinds of fruit trees; I made ponds of water for myself from which to irrigate a forest of growing trees." (2:4-6) Of course, readers of this magazine will no doubt recognize that Solomon should have focused on structures if he really wanted to be happy and prosperous!

Actually, the main reason why I am writing about Ecclesiastes this month is the fact that it includes some solid recommendations in the area of risk management. Here are a few examples.

• "I again saw under the sun that the race is not to the swift and the battle is not to the warriors, and neither is bread to the wise nor wealth to the discerning nor favor to men of ability; for time and chance overtake them all." (9:11) No matter how good we are at our jobs, there is always the possibility that something will go wrong in spite of our best efforts.

- "Moreover, man does not know his time: like fish caught in a treacherous net and birds trapped in a snare, so the sons of men are ensnared at an evil time when it suddenly falls
 - upon them." (9:12) When bad things happen, it is often at the worst possible moment, so we need to have contingency plans in place beforehand.
- "He who digs a pit may fall into it, and a serpent may bite him who breaks through a wall. He who quarries stones may be hurt by them, and he who splits logs may be endangered by them." (10:8-9) The very nature of what we do for a living is such that even a small mistake can lead to considerable harm.
- "Cast your bread on the surface of the waters, for you will find it after many days. Divide your portion to seven, or even to eight, for you do not know what misfortune may occur on the earth." (11:1-2) Commentators are divided over whether this should be taken as investment advice or a call to charity; I see it both ways, and it also provides guidance for project organization and succession planning.
- "He who watches the wind will not sow and he who looks at the clouds will not reap." (11:4) Do not be paralyzed by fear or even just uncertainty; if you wait for exactly the right conditions to move ahead with a particular venture, you will probably never get started.
- "Sow your seed in the morning and do not be idle in the evening, for you do not know whether morning or evening sowing will succeed, or whether both of them alike will be good." (11:6) Never stop exploring new opportunities, because you will rarely be able to anticipate ahead of time which ones will pay off and which ones will not.

The bottom line is that risk is unavoidable – our time is short, our understanding is shallow, and our control is shaky at best. This is an aspect of reality that we should not just accept, but embrace. Recognizing the limitations on our mastery over our own destiny should make us that much more sober and careful when we take the public's safety, health, and welfare into our hands by designing the structures on which they depend.

Jon A. Schmidt, P.E., SECB (chair@STRUCTUREmag.org), is an associate structural engineer at Burns & McDonnell in Kansas City, Missouri, and chairs the STRUCTURE magazine Editorial Board. Reader comments on InFocus columns are always welcome.

Editorial Board

Chair

Jon A. Schmidt, P.E., SECB

Burns & McDonnell

Kansas City, MO

chair@structuremag.org

Executive Editor Jeanne M. Vogelzang, JD, CAE NCSEA H Chicago, IL ncsea@structuremag.org

chair@structuremag.org

Richard Hess, S.E., SECB

Hess Engineering Inc.

Los Alamitos, CA

anne M. Vogelzang, JD, CAE

Mark W. Holmborg, P.E.

E Mark W. Holmberg, P.E. Heath & Lineback Engineers, Inc Marietta, GA

Craig E. Barnes, P.E., S.E.

Boston, MA

BI Consulting, Inc

Brian J. Leshko, P.E. HDR Engineering, Inc. Pittsburgh, PA

John A. Mercer Mercer Engineering, PC Minot, ND

> Brian W. Miller AISC Davis, CA

Mike C. Mota, P.E. CRSI Williamstown, N.I

Evans Mountzouris, P.E.
The DiSalvo Ericson Group
Ridgefield, CT

Matthew Salveson, P.E.

Dokken Engineering
Folsom, CA

Greg Schindler, P.E., S.E.
KPFF Consulting Engineers
Seattle, WA

Stephen P. Schneider, Ph.D., P.E. Kramer Gehlen & Associates, Inc. Vancouver, WA

John "Buddy" Showalter, P.E. AF & PA/American Wood Council Washington, DC