



# EQUILIBRIUM

October 2018

Newsletter of the  
Seattle Chapter  
Structural Engineers  
Association of Washington

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## Seattle Chapter October Dinner Meeting

**Topic: Professional Liability  
Insurance 101**



Tuesday, October 23, 2018  
5:30 pm to 8:15 pm

**Hotel Monaco**  
1101 Fourth Avenue  
Seattle, WA 98101

**Register Today!**

Ever thought about starting your own firm? Ever wonder how your firm manages the risks of practicing structural engineering? Ever wonder how to address liability claims once they come up? This presentation will provide structural engineers with a basic knowledge of the most critical components of professional liability insurance to help manage risk and improve profitability. Specifically, this presentation

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will help structural engineers understand the following:

- How to avoid an uncovered claim.
- Minimize the effect of a claim should one occur.
- Reduce the costs of professional liability.

**Benefits and knowledge our members can expect to take away from the presentation:**

- A good, basic understanding of the most important things to know about professional liability insurance policies.
- Learn how to reduce the likelihood of having an uncovered claim.
- Learn how to reduce your expenses and therefore improve your firm's profitability by being proactive with your renewal.

**Speaker: Matthew Copus; CIC, CRM**

Hall & Company

Matthew Copus is a Senior Associate for Hall & Company, an insurance brokerage firm that specializes in the placement of professional liability insurance for design firms and consultants.

Matthew has been serving as an insurance broker and risk manager for AE firms, Land Surveyors, and environmental Consultants since November of 1998. Matthew is a certified insurance counselor as well as a certified risk manager.

**Agenda:**

5:15 pm – 6:00 pm

Registration/Networking

6:00 pm – 6:30 pm Dinner

6:50 pm – 7:00

pm Welcome/Announcements

7:00 pm – 8:15 pm Program

**Registration Fees:**

\$45 - Members (\$40 early bird)

\$50 - Non-members & Guests

\$35 - YMG (\$30 early bird)

\$15 - Students

**Register Today!**

*Early bird rates end October 19, 2018. YMG rate applies to Engineers under 35 for both members and non-members.*

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## September Dinner Meeting Recap

*By Jeremy Macht*



ing's featured presentation was given by Mr. Mark Marne, Senior Design Engineer from M&E. Marne is part of the Convention Center Group at MKA and is active in the Acoustics and Vibrations Technical Specialist Group. His experience which was well utilized on the Spheres project. [Read More](#)

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## Engineer's Notes from Afield

*By Darrell Staaleson*



I was in Las Vegas in September for a few days of ASCE Week. After two days of non-stop information about methods for conducting structural condition assessments, we took a break from the ASCE Conference and headed out to Hoover Dam for a technical tour.

We took an elevator down to the power plant level. We walked through tunnels in the rock and stood on a platform over one of the 13' diameter steel penstocks that is one of the water supply lines for the turbines. The sections were fabricated on-site and all the welds were inspected using x-rays. (I didn't even know that x-ray technology was available in the 1930's.) The sections were then assembled using stainless steel pins. [Read More](#)

## “Higher & Higher: Jeddah Tower & Building Megatall”

By Angela Gottula Twining

**HIGHER & HIGHER**  
**Jeddah Tower & Building Megatall**

WEDNESDAY, NOVEMBER 14, 2018  
Benaroya Hall, 200 University St., Seattle, WA

4:30 p.m. – Networking Reception\*  
6 p.m. – Lecture (free)  
Registration encouraged as capacity is limited.  
[www.sefw.org](http://www.sefw.org)

\*Individual admission by \$25 donation or become a "Friend of the Foundation" for \$100. Corporate sponsorships also available.  
SEFW is a 501(c)(3) registered nonprofit.

The Structural Engineers Foundation of Washington  
**2018 FALL FORUM**

Construction began in April 2013 on the Jeddah Tower in Saudi Arabia, expected to be the world's tallest structure once it is complete. Reaching 1 kilometer (3,281 feet) high, the tower isn't just tall – it's *megatall*. Its design pushes the limits of everything the industry knows about architecture, engineering, and construction – and sets the pace for the future as buildings go higher and higher.

The presentation will share intriguing insight into the Jeddah Tower's design and construction, as well as outline how it is shaping structures of the future. Presented by the project's principal architect and principal structural engineer, the discussion is sure to fascinate industry professionals, tall building enthusiasts, students, and the general public.

**Peter Williams, FAIA**  
Director of Supertall Building Technology  
Adrian Smith + Gordon Gill Architecture

**Robert Sinn, P.E., S.E.**  
Principal  
Thorburn Tompsett

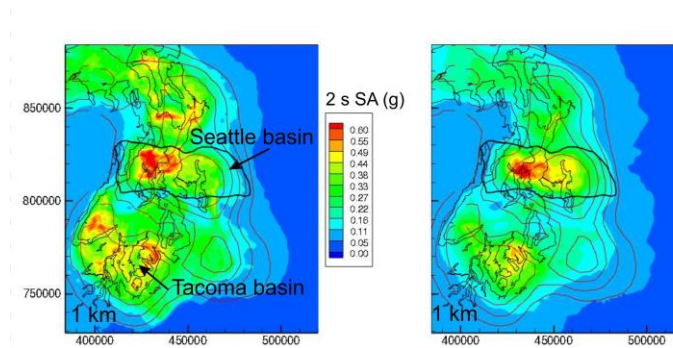
**SEFW**  
THE STRUCTURAL ENGINEERS FOUNDATION OF WASHINGTON

The Structural Engineers Foundation of Washington (SEFW) is excited for this year's Fall Forum, “**Higher & Higher: Jeddah Tower & Building Megatall.**” The principal architect and principal structural engineer of the Jeddah Tower will discuss the architecture, engineering, and construction of the project, slated to be the world's next tallest building. More than 300 industry professionals, tall building enthusiasts, students, and members of the general public are expected to attend. Invitations have gone out soliciting Corporate Partnerships, and many SEAW firms will generously participate. Thank you! Individuals may also participate in this event by becoming a “Friend of the Foundation” for a tax-deductible gift of \$100. [Read More](#)

## Seattle Basin Amplification: Geotechnical Background & Building Design

By Nathalie Boeholt





Spectral acceleration maps from the M9 simulations.  
Photo credit: Art Frankel.

The SEAW Education Committee is hosting a 2-hour webinar on the topic of the Seattle Basin amplification factors and how they affect the seismic design of buildings using site-specific response spectra not only in Seattle but in Bellevue and much of the central Puget Sound region. This webinar will cover:

- Observations and recent research on basin amplification
- The City of Seattle's recent efforts to incorporate basin amplification in tall building design described in USGS Open-File Report 2018-1149 and Director's Rule 20-2018
- The effect of new basin amplification factors on site-specific spectra
- Implications for building design
- How basin amplification will be incorporated in the 2018 national seismic hazard maps

[Learn More](#)

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## Structural Masonry Design Webinar

*By Tom Young*

The Northwest Concrete Masonry Association is sponsoring a three-part webinar series on reinforced masonry design. It will focus on the requirements of the 2015 IBC and 2013 TMS 402/ACI 530 codes. Both working stress and strength design of reinforced concrete masonry will be covered.

Learn how to use and interpret the building code through masonry building element design examples. Participants will earn continuing education credit. [Learn More](#)

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## YMG Corner

*By Juzer Millwala*



*Kyle Murdock talking about sustainability in design. The photograph was taken by Brent Olson from PCS*

In September SEAW YMG teamed up with YAF to do an event as part of AIA's Happy Hour series. The event was hosted by PCS Structural Solutions. The theme was to get engineers and architects to talk about their social, environmental, and cultural responsibilities as designers. Brent Olson and Kyle Murdock from PCS Structural Solutions spoke about the responsibilities of structural engineers in sustainable design and working with contractors to curb carbon emissions in the building sector.

[Read More](#)

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## State and Chapter Committee Reports

Contact the committee chair if you are interested in learning more or getting involved:

- NCSEA Delegate – Chun Lau
- Earthquake Engineering Committee – Kai Ki Mow  
One of the current main focus and an important topic that the committee hopes to address in the upcoming year is the Increased Seismic Load in the newly published ASCE 7-16. Members interested in EEC can find additional information regarding the meeting on the [SEAW website calendar](#) or can contact the committee chair.
- Outreach Committee - Pete Opsahl  
To sign up to volunteer or to mentor, [visit the SEFW page](#).
- Sustainability Committee – Rachel Vranizan
- Refresher Committee – Mark Whiteley
- Public Information Committee – Darrell Staaleson
- Disaster Preparation/Response Committee – Joyce Lem
- WABO Liaison Committee – Charlie Griffes  
The SEAW/WABO Liaison committee is now available for questions from SEAW or WABO members. These questions can be about subjects addressed in the white papers already issued or general questions in the realm of structural engineering practice as it relates to interaction with the various building departments. Comments or questions can be emailed to [charlie@ctengineering.com](mailto:charlie@ctengineering.com).  
[White Paper 6b - 2017 on Deferred Submittals](#)
- Wind Engineering Committee – Scott Douglas
- Technology Taskforce – Morgan Wiese
- Membership Task Group – Jill Shuttleworth
- Continuing Education Committee – Adam Ailvers
- Scholarship Committee – Kevin Solberg

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## Wind Engineering Committee (WEC)

Next Meeting: Thursday, October 11 from 12:00 pm – 1:00 pm at MKA, 1301 5<sup>th</sup> Avenue #3200, downtown Seattle.

### **Go-to-Meeting log-in information:**

<https://global.gotomeeting.com/join/974079181>

or phone dial-in: (872) 240-3212

Access Code: 974-079-181

The October meeting agenda will include the following topics: (1) Discussion on ASCE Wind Load Subcommittee Proposed Ballots, (2) Possible SEAW WEC Participation on Volume 2 SEAOC Wind Design Manual, and (3) development of a Kzt map for the City of Bellevue. All members are encouraged to participate either in person or via Go-to-Meeting.

[Read More](#)

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## Employment Opportunities

Are you currently seeking employment as a structural engineer, senior manager, or a senior engineer technician? Check out our job board for current employment opportunities. [Learn More](#)

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## Membership Postings

In accordance with SEAW bylaws, membership applications are vetted by the executive director, granted probationary status by the chapter board, and posted for membership comment.

Membership is considered accepted 30 days after posting if current year dues are paid and no member objections have been received. [Read More](#)

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## Free Structural Engineering Materials

By Paul Shanta, SE

After more than 40 years as a practicing structural engineer, I have recently retired. I find that I have several boxes of professional books, manuals, and reference materials I no longer need. I believe these materials would be valuable to other practicing structural engineers, a technical library, or students, to which I would be willing to donate as a single lot. Anyone interested in the materials I have can contact me via email: [paul.shanta@berkeley.edu](mailto:paul.shanta@berkeley.edu).

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## From the Editor

*By John Gunn*



Equilibrium publication Team:  
John Gunn, Editor  
Darrell Staaleson, Past Editor  
Zohrah Ali & Allison Tran - Grammar, spelling, and watching out for you'll-never-believe-how-they-spelled-that!

#### **ACTION ITEMS:**

1. All members are welcome to submit articles to Equilibrium. To help you with your writer's block, here are a few topics: Write Engineer's Notes from Afield, summarize an interesting technical design you worked on, write about how you have been successful and increased productivity with an accounting procedure or marketing technique, write about your experiences in community services, or share some construction site photos and talk about lessons learned.
2. "A Picture and a Paragraph." And please use the Article submittal form provided. Please note that when I say, "picture" I mean an actual image and not a blank space where the picture should be. And the picture needs a caption along with the names of the people in the photo.
3. Please submit your articles in Word format using the Article Template. [[Article Template](#)]
4. Please email your articles to John Gunn ([john.gunn@kpff.com](mailto:john.gunn@kpff.com))

#### **Corrections:**

The SEP edition listed Kyle Streck as the Sustainability Committee Chair. The current Sustainability Committee Chair is Rachel Vranizan.

#### **October Puzzle:**

Who has been credited with coming up with the theory of evolution by natural selection besides Charles Darwin?

Bonus: What is the alternate term for the effect named after him?

Clue: He also opposed compulsory vaccination and conducted a test showing that the earth is curved.

Look on the SEAW Facebook page for a picture clue!

The first SEAW member to respond on our SEAW Facebook Page or at the next Dinner Meeting – **with a correct and full answer** - will get coffee and a Danish pastry.

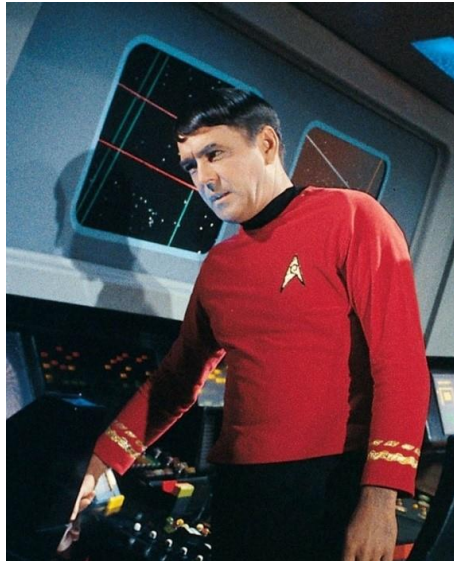
#### **September Puzzle:**

In this episode, after "that poppin' J. Fox" beams down to the planet, Scotty prepares to implement "Total War." Name the title of the episode. Bonus: name the General Order given and the StarDate.

Clue: "Joshua."

**Clue:**





Montgomery Scott, Chief Engineer, Starship Enterprise.

**Answer:**

The title of the episode is “A Taste of Armageddon”, Kirk gave Scotty General Order 24, and the Star Date is 3192.1.

[https://en.wikipedia.org/wiki/A\\_Taste\\_of\\_Armageddon](https://en.wikipedia.org/wiki/A_Taste_of_Armageddon)

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## Upcoming Events

October 17: [Southwest Chapter ASCE Meeting](#)

October 23: [Seattle Chapter Meeting](#)

November 6: [Seattle Basin Amplification](#)

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**Structural Engineers Association of Washington**

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