BY **KARL G. RULING**

Navigating with different maps

"Given that what different types of beings see is different, we should have some doubts about this. Is it that there are various ways of seeing one object? Or is it that we have mistaken various images for one object?" ~ from the *Sansuikyō* translated by Carl Bielefeldt.

IN *THE MOUNTAINS AND WATERS SUTRA: a Practitioner's Guide to Dōgen's Sansuikyō*, Shohaku Okumura uses the metaphor of maps to explain how our perception is limited and conditioned. The map metaphor came back to me repeatedly as I watched and listened to people explaining how they saw things during the TSP working group meetings at the end of January 2021. No rational person would confuse a map for the world, but the map you have certainly affects how you get from here to there.

Okumura writes that, when he was a child in Japan, the world maps he saw showed Japan in the middle. Japan is small, so it was shown in red to make it stand out. Okumura also took the color to mean that Japan is a special place. When he was older, he went to the United States, traveling east to get to "The West," going to the edge of the world on his Japanese map. While visiting a Japanese family in New Haven, he saw a world map in the children's room. The United States was the center of the world! "I was really surprised. Although I was an adult, it had never occurred to me that the center of the world is not fixed."

Okumura says all maps are distorted. The center of our map is usually our country, and the area around it is relatively accurate, but the edges are not. In some projections, Greenland looks larger than the United States, even though its area is less than a quarter of the US. In drawing our own personal maps, things we love or hate are big; things we don't care about are small. Eliminating distortion is impossible. Okumura says the important thing is to see that our maps are distorted, then we are free from our maps.

Okumura is a Buddhist priest; he offers zazen to see the distortion. However, I think we see the distortion if we carefully listen to each other. That careful listening was what I observed at the eight working group meetings, January 26 through 29. This is not to say that everyone or anyone had a flash of enlightenment, but we were able, by listening to each other, to chart a way with our projects despite having different maps. Following is a highlights travelogue.

The Mappa Mundi in *La Fleur des Histoires,* 1459-1463, is a schematic depiction of the world's land masses as understood at the time. Noah's Ark is shown on Mount Ararat.

Control Protocols Working Group

Forty-two people participated in the online meeting on January 23, spanning nine time zones from California to Niederösterreich. The working group had too large an agenda for the two hours booked for the meeting. Several items have been held until the next meeting, scheduled for April 14, but we did get some things accomplished.

There was long discussion on voting to reaffirm *ANSI E1.37-2 – 2015, Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 and DNS Configuration Messages*, a discussion that revealed fundamentally different views. Several people initially voted No on the reaffirmation, citing omissions in the document. There was agreement that things were missing, but adding them would make substantive changes, requiring filing for an ANSI revision project, revision, further public reviews, comment resolutions, and votes— and the standard is useful now, even if imperfect. People voting to reaffirm the standard would rather put our efforts into a new project, *BSR E1.37-8, Additional Message Sets for ANSI E1.20 (RDM) – IPv6 and Improved IPv4 Configuration Messages*, which would do much of what *E1.37-2* is supposed to do, but more, since it also would cover

IPv6 addressing. For people working in the Internet of Things or at the edges of it, IPv6 addressing is important; for those working on self-contained networks now, not so much. As I write this, the working group is in the final days of the reaffirmation ballot.

The working group voted to start a new project: *BSR E1.73, Next Generation Entertainment Control Model: Uniform Device Representation (UDR)*. The project is an outgrowth of the Next Generation Library Study Group looking at fixture libraries and the industry's need for a common digital format covering information about devices and their states, parameters, and physical properties, and the metadata needed to describe them. It will not include methods for controlling device parameters in real-time, but it will have a method for mapping parameters to existing controls. The Technical Standards Council approved the project, and it has been filed as a new project with ANSI.

Some of what *BSR E1.73, UDR*, is supposed to do is covered by *General Device Type Format (GDTF)*. GDTF was developed by MA Lighting, Vectorworks, and Robe; representatives of those companies argued in the CPWG meeting that we should not develop a standard competing with GDTF because this would confuse the market. The Library Study Group responded that they had looked at GDTF and found limitations with it, among them being its tight integration with DMX512, and limited extensibility and scalability. The Study Group was not condemning GDTF, simply saying it was not the way forward for us. Furthermore, there is no evidence that our industry is confused by different protocols that provide similar functionality. There has been widespread adoption of *ANSI E1.31* and Art-Net, protocols that provide similar functionality, but are not the same, and yet they co-exist in the market. People in the market decide what they will use, not standards developers.

The CPWG meeting ran out of time, but the working group started projects to reaffirm *ANSI E1.3 – 2001 (R2016)*, the 0 to 10 V analog control specification and its guide; *ANSI E1.27-1 – 2006 (R2016), the standard for Portable DMX512 Control Cables; ANSI E1.30-1 – 2010 (R2016), EPI 23, Device Identification Subdevice*; and *ANSI E1.30-4 – 2010 (R2015), EPI 26, Device Description Language (DDL) Extensions for DMX512 and E1.31 Devices*. They are all in public review on the ESTA website (http://estalink.us/pr) for reaffirmation through April 19.

Electrical Power Working Group

Twenty-two people in North America connected to participate in the EPWG meeting on January 29. Most of the meeting was discussing the most recent revision of *BSR E1.19, Recommended Practice for the Use of Class A Ground-Fault Circuit Interrupters (GFCIs) Intended for Personnel Protection in the Entertainment Industry*. One sentence was tweaked at the meeting, and the revised draft was voted to be offered for public review. It's now on the ESTA website for public review through April 19.

There were reports by EPWG members who serve on *National Electrical Code* panels. A major rewrite of Article 530 for motion pictures has been proposed by an industry committee headed by Alan Rowe. A proposal from Steve Terry for multi-circuit cables (often called "Socapex breakouts") was proposed for Articles 530 and 520, stages. Steve also pointed out a proposal for article 700.11, Class-2-powered emergency lighting, that would affect theatres. The proposal would require wiring, including PoE lighting conductors, to be installed in a raceway, armored or metal-clad cable, or cable tray. These requirements are difficult to meet with an Ethernet patch cord into a switch. The NFPA's *National Electrical Code* is not an ESTA project, but the ESTA meetings are a place where we can talk about it, and give notice if public input is needed. The first draft *NEC* report with the changes discussed at this EPWG meeting will be published July 2. Then the public can comment on it until August 19.

Event Safety Working Group

The Event Safety Working Group had 38 participants from across Europe and North America at its meeting on January 29. The definitely good news was that *BSR ES1.7, Event Safety – Weather Preparedness*, had been accepted by the working group and the Technical Standards Council. (As I write this, final ANSI approval has just come in. Look for it to be published soon!)

We had a few draft standards be brought to the working group with too little lead-time to let a vote on them be taken, but in many cases no vote was expected. One was *BSR ES1.2, Event Safety, Planning Management + Major Incident*. No vote was being asked, only informal working group comments. Another was a set of draft comment resolutions for *BSR ES1.4, Event Fire Safety Requirements*, a draft standard that had been offered for public review and received comments from only two parties, an architect and the NFPA's secretary. The architect had recommend that we incorporate some of the requirements and terms from the *International Building Code*. The NFPA's secretary reported no objections to the draft standard, but we had used some definitions on which the NFPA claims copyright; we should ask permission to use these definitions. The draft comment resolutions were sent to working group members on the day of the meeting, leaving scant time to consider them, so action will be taken at the next meeting, which is scheduled for April 16.

Floors Working Group

Nine people met for the Floors Working Group meeting on January 26. The big item of business was starting the process of reaffirming *ANSI E1.57 – 2016, Recommendations to Prevent Performer and Technician Falls On or Off Movable Parade Floats, Movable Stages, and Similar Moving Platforms*. This is a standard based on the Walt Disney Company's internal worker safety rules. There aren't a lot of street parades now, but there should be soon. The working group

doesn't want this standard to die of old age. It's in public review through April 5.

Fog and Smoke Working Group

The Fog and Smoke Working Group did not meet in January, but the Technical Standards Council approved a proposal about stage ventilation and assigned it to the Fog and Smoke Working Group. "Ventilation" is neither fog nor smoke, but it affects these effects, and the Fog and Smoke Working Group has members who are Certified Industrial Hygienists and who deal with ventilation as part of their work. The working group has to meet to vote whether to take up the project. A meeting is now scheduled for April 12.

Followspot Position Working Group

Seven people met on January 27 to review the working group's oeuvre and to decide if any works need to be added to it. No additions are needed, but the working group started the process of reaffirming *ANSI E1.28 – 2011(R2016), Guidance on Planning Followspot Positions in Places of Public Assembly*. It's in public review through April 5.

Photometrics Working Group

Eleven people met on January 27. It discussed working group comments on *BSR E1.69, Reporting the Low-End Dimming Performance of Entertainment Luminaires Using LED Sources*, but the more interesting discussion was about *ANSI E1.41 – 2016, Recommendations for Measuring and Reporting Photometric Performance Data for Entertainment Luminaires Utilizing Solid State Light Sources*. It's at its fifth anniversary, so we need to start work to reaffirm it, revise it, or withdraw it. Mike Wood moved that we open the standard for revision. The motion carried.

Mike argued that what the standard covers now is good, but there are concerns today that were not concerns when this standard was drafted. (See Mike's "Out of the Wood" column in this issue of *Protocol*.) Besides the Stroboscopic Visibility Measure described in his column, which relates to PWM dimming, there are concerns about efficacy in the EU Ecodesign regulations.

If you want to get involved in this project, you can do this by commenting during future public reviews of the revised document, or join the working group to help write it. Information about joining the working group is in the accompanying "Call for Members" sidebar.

Rigging Working Group

Seventy-two people joined the WebEx meeting January 26. The Rigging Working Group heard reports about more than a dozen projects, and moved four towards becoming American National

Standards. Three—*BSR E1.2, Entertainment Technology – Design, Manufacture and Use of Aluminum Trusses and Towers*; *BSR E1.39, Entertainment Technology – Selection and Use of Personal Fall Arrest Systems on Portable Structures Used in the Entertainment Industry*; and *BSR E1.67, Design, Inspection, Maintenance, Selection, and Use of Hand-operated Chain- and Lever Hoists for the Entertainment Industry*—received no comments in their last public reviews. They are all being voted on now by letter ballot to be accepted as American National Standards.

BSR E1.4-2, Entertainment Technology—Statically Suspended Rigging Systems is a new standard for dead-hung rigging systems. There were three comments in the last public review, two of which were easy to resolve. One took more thought, but the final resolutions for all three made no substantive changes. Bart Mueller moved to accept *BSR E1.4-2* as an American National Standard. That letter ballot is ongoing now, with all the votes so far being Yes or Yes with comments—the latter pointing out a misspelled word.

Stage Machinery Working Group

Twenty-six people joined the online Stage Machinery Working Group meeting on January 28. The working group has four active projects; a lot of the discussion was about defining scopes so that they don't cover each other's territory. The *BSR E1.42*, stage and orchestra lifts project is to revise the existing *ANSI E1.42 – 2018*. That standard was written so that AHJs would have a standard for

orchestra pit lifts more appropriate than standards for passenger or freight elevators. Now the discussion is about also including lifts built specifically for shows, not as part of the permanent building structure. Where's the border between *BSR E1.42* and *BSR E1.72*, floor machines? The division—for now—is up-and-down is *E1.42*, while side-to-side is *E1.72*. There is certain to be more discussion at the next meeting, now set for April 15.

I've sprinkled this TSP news update with the days for the next set of working group meetings. The full schedule, with the times, is available at https://esta.org/ESTA/meetings.php. They are all by WebEx, so no map is needed to get you to the meeting. The meeting log-in information is part of the agenda for each working group member or pending member. However, if you want to listen in, send an email to standards@esta.org. The meetings are not secret. If you find them interesting, perhaps you will want to join. ◾

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