



# Newsletter of the ASA & CSCA

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## Celebrating a Great Annual Meeting and 75 Years of ASA

With 290 participants, this year's Annual Meeting was record-breaking, a fitting way to honor ASA's 75<sup>th</sup> anniversary. In addition, the meeting honored ASA history and took some important steps toward the future. One participant said, "Overall, the experience was truly incredible. This was inspiring, compelling, and I felt very profitable on so many levels!!" All in all, it was a great meeting to celebrate the ASA's 75<sup>th</sup> anniversary and start our next 75 years.

The keynote speakers did an excellent job. William "Bill" Newsome explored his theological and scientific perspective on neuroscience and the mind, weaving in accounts of recent research in his talk "Of Two Minds: A Neuroscientist Balances Science and Faith." His thoughtful presentation was described by an impressed (and punning) attendee as "mind blowing." Roger Wiens shared moving stories about the scien-

tific and personal challenges and joys of leading the ChemCam instrument project for the Mars Curiosity Rover. Listeners expressed appreciation for his impactful testimony and presence as a role model for young Christians in science.



In his plenary speech, "Contemporary Trends in the Science of Religion," Justin Barrett explored how the cognitive and evolutionary sciences of religion attempt to explain religious belief, and how Christian faith interacts with those theories. Commenters praised his combination of scientific exposition and humor. Audrey Bowden gave a plenary talk entitled "Imag(in)ing a Brighter Future for Healthcare." She described how the lab she leads at Stanford uses innovative optical technologies to design and fabricate new medical solutions for those in need. Listeners celebrated Bowden

**Continued on page 3**



## Executive Director Leslie Wickman

### Director's Corner

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Dear friends,

It's hard to believe our 2016 Annual Meeting and 75<sup>th</sup> Anniversary Celebration at Azusa Pacific is already two months behind us, but that just means our 2017 Meeting at Colorado School of Mines is that much closer. What a great meeting we had at APU! For those of you who missed it, we had a record attendance of 290, surpassing our previous record of 273 in 2014 at McMaster University in Ontario, Canada. On top of that, we had a record number of 57 students in attendance, and we honored the twenty-two (out of our roughly 80 total) 40-plus-year ASA members who were able to make it to our anniversary dinner.

God most certainly smiled on us in this year of transition, and in spite of a couple of early hiccups with internet access and dorm rooms, things went surprisingly smoothly. Several attendees went so far as to claim that this was our best meeting ever, with many citing the fellowship and excellent plenaries as highlights. This is in no small part a reflection of all the hard work of our program chair (Michael Everest) and local arrangements chairs (Sarah Richart and Kathleen Tallman). I am personally grateful to each of them, as well as to Randy Isaac and all the ASA office staff (Lyn Berg, Vicki Best, Sharon Carlson, Hannah Eagleson, and Marty Herdrich) for laying a solid foundation for an ongoing series of successful ASA meetings!

In other news, thanks to a STEAM (Science & Theology for Emerging Adult Ministries) grant we received from Fuller Theological Seminary and the John Templeton Foundation right after the annual meeting, Vicki Best (ASA Director of Operations and Development) and I will be traveling to various locations across the country this fall and next spring as part of our "Local Chapters Campaign" in order to encourage existing ASA chapters and to help launch new ones to further extend the work and mission of the ASA. We look forward to seeing you while we're out on the road!

That's it for now; I appreciate all of you!

God is good,

Leslie

## Continued from page 1

as a role model for young Christians in science and described her talk as “exceptionally clear and compelling.” One attendee said, “Audrey Bowden’s talk really sticks out in my mind because of the encouragement to follow God’s leading in all of our lives.”

The workshop sessions before the meeting were very much appreciated. Denis O. Lamoureux shared “Five Online Sunday School Lessons on Science and Religion.” One participant remarked, “Denis Lamoureux offers excellent resources in advancing the conversation in the context of the structures of the church in North America.” Douglas Lauffenberger facilitated a workshop titled “Genomic Biotechnologies in Medicine—What Can Be Done, and What Should Be Done?” One participant observed, “The Genomic Biotechnologies workshop was really good and highly informative.”

ASA also celebrated its history with a special 75<sup>th</sup> Anniversary Dinner. Ted Davis gave a keynote address, sharing some of his wealth of knowledge about ASA’s founding and ongoing history. As one participant said, “Dr. Davis gave a great history of faith and science in America.” Walt Hearn shared a characteristically witty speech in his role as newsletter editor emeritus and long-term ASA member, and we honored VIP members (those who have been members for 40+ years).

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VIP members were also honored in a symposium, where many shared their ASA memories and vision for the future of ASA (see story below). Other tracks explored a wide range of topics, including teaching, stewardship, and various scientific disciplines. Christian Women in Science sponsored a number of events (see p. 6). Investing in the future of the ASA also included a pilot student track organized by InterVarsity’s Emerging Scholars Network (ESN). ESN has received grant funding to expand next year, in collaboration with ASA (see story on p. 7).

Future annual meetings will likely continue to include exciting field trips, enthusiastic volleyball tournaments, and lots of fellowship. ASA is deeply grateful to program chair Michael Everest, local arrangements chairs Kathleen Tallman and Sarah Richart, and all the other volunteers and staff workers for helping to make this one of the best ASA meetings ever. In reflecting on the meeting, one ASA member summarized much of the reason ASA does what it does: “A great number of people I encountered—in conversation, [and] through their talks—seemed to incorporate their faith and work in meaningful ways. This served as a profound encouragement to me.” Another said, “This was perhaps the highlight of my year, and I will definitely come back.” It was truly a time to remember God’s faithfulness and look forward to future growth.

*ASA announced its new Fellows at the Annual Meeting. Next issue, we’ll feature profiles of the Fellows:*

Kirk Bertsche

William Jordan

Douglas A. Lauffenberger

Chris Macosko

Don Nelson Page

Donald N. Petcher

**For audio/video presentations of the speakers and more photos, visit [asa3.org](http://asa3.org).**

# ASA at 75; Me at 90

For this special edition of the newsletter celebrating the 75<sup>th</sup> Anniversary of the ASA, we asked Walt Hearn, Newsletter Editor Emeritus and Extraordinaire, to contribute some reflections.

*By Walt Hearn*

For me, the 2016 Annual Meeting at Azusa Pacific was exhilarating and exhausting, brain-bending and heart-warming. My whole experience in ASA has been like that. As a grad student and then a fledgling biochemist, I needed exposure to a wide variety of Christian viewpoints on science to help me hammer out my own stance. In the process, my life was enriched by fellowship with so many thoughtful Christians. Together we've sought to witness to colleagues disinterested in faith and to "witness" to fellow believers distrustful of science.

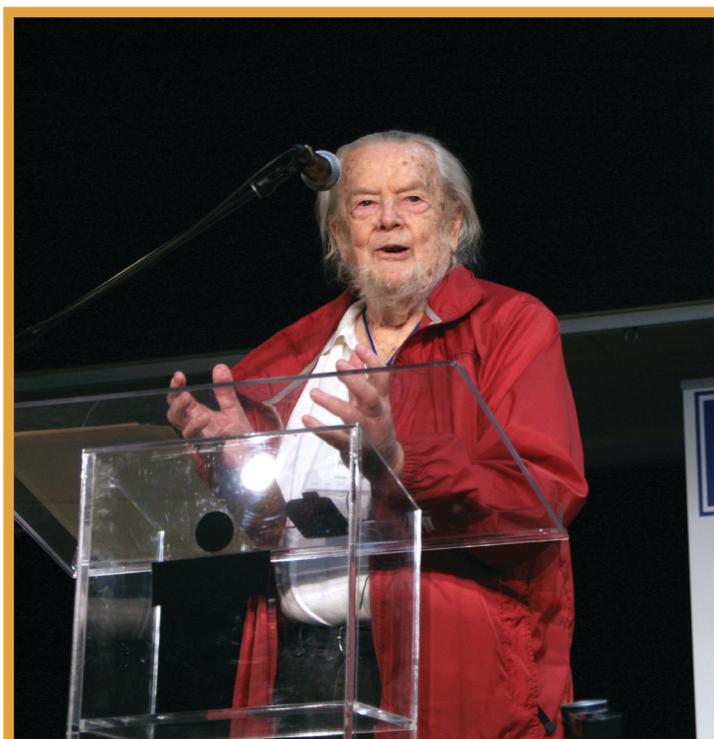
I wasn't expecting the fuss made over me as the oldest person at the meeting, and was overwhelmed by the *Festschrift* issue of *God and Nature* magazine. I'm still amazed at how Editor Emily Ruppel and her co-conspirators managed to pull that off. Even so, for me the most joy-producing aspect was seeing so many young people about to benefit, as I have, from ASA. I can offer them encouragement but hardly advice, the world having changed so much in the past 65 years.

Some ASA "newbies" may have felt that we devoted too much time to nostalgia and "ancient history." Fair enough—but a 75th anniversary is a special occasion. Since then, the current issue of *Perspectives on Science and Christian Faith* has landed on my desk with another batch of historical papers. It's fun to read historians' descriptions of events I was in on (with no sense of "making history"! ). Each account seems to get things right, though each with its own slant. Like the four Gospel records of Jesus' life, they differ, yet each rings true.

Before my memory gets any less reliable, here are a few incidents that probably *won't* make it into any "History of ASA." Actually many of our annual meetings have been forward-looking, ahead of their time. I remember one where a sociologist outlined in detail where society was headed, prophetically predicting many dismal things that have happened since. A questioner said, "I appreciate your paper but I think I missed the 'hopeful conclusion.'" After a moment's thought, the speaker replied, soberly, "There is no hopeful conclusion."

Speaking of sobriety, I recall the first time a thoroughly secular expert was invited to give an ASA plenary lecture on overpopulation, the theme of that meeting. He arrived with eyes looking bloodshot and breath smelling of alcohol—no doubt from fortifying himself to face the fundamentalist yahoos he probably assumed we were. He gradually got control of himself and gave a substantial lecture. The audience was cordial and asked probing questions. I think we convinced him that we were serious Christians who could think like serious scientists. It made me proud to be an ASA member.

Then there was the meeting (before the 1971 Hafele-Keating flight experiment settled the matter), when chemist George Schweitzer and I got into a heated discussion about how Einstein's theory of relativity could be tested. Although the topic was way "above our pay grade," that didn't stop us from arguing far into the night, at times switching positions. In fact, we argued all night long without coming up with a satisfying answer. Then it dawned on us.





## VIP Members Symposium

The ASA was delighted to have many VIP members (those who have been members for 40+ years) describe their ASA experiences and imagine the future in a VIP symposium at the Annual Meeting. Randy Isaac moderated three panel discussions. The first panel included John Wood, Harold Stephens, and Martin Price. The second featured Walt Hearn, Jack Swarengen, and Ken Olson. In the final panel, attendees heard from Ken Touryan, Leland Williams, and Phil Ogden.

Randy Isaac posed questions about each participant's journey with ASA, and also questions about ASA's history and future hopes. The individual questions included the following: What were you doing when you joined ASA? How did you hear about the ASA? Why did you join? and What impact has ASA had on your life? The questions about the past and future of ASA included What was ASA like when you joined? How has ASA changed since you joined? and How do you think ASA needs to change in the future?

Some memories included post-annual meeting tours in Scotland and Canada, which Ken Olson said were very helpful in establishing relationships and fellowships. Ken also recalled more talks in previous years on areas such as scripture, sociology, and psychology—he would like to see more of these. Walt Hearn recalled that everyone in ASA, in the early days, was an amateur at publicity and public relations. In order to help address this issue, as newsletter editor he made up an official sounding award for anyone who could get the ASA mentioned in any publication anywhere.

One key theme of the stories shared was how much VIP members appreciated ASA's interaction with both science

and faith. Ken Touryan described how he was attracted by the idea of being in a professional society for Christians that engaged science deeply and also took faith seriously. Phil Ogden articulated how much ASA has helped him integrate faith and science, observing: "The journals and the Annual Meetings have really helped to strengthen my faith dramatically."

Another important emphasis was the sense of fellowship and community across a wide range of geography. Martin Price shared that this sense of fellowship convinced him to join ASA, and pointed to it as an important key to encouraging new members.

Another theme of the stories was being introduced to ASA by a faculty member or more experienced member. For instance, Harold Stephens shared that as a young man he went to church with Alton Everest, the first president of ASA, and Everest recruited him to join. Harold said that, over the years, ASA has helped him learn all the different viewpoints that can be consistent with scripture, coming back to the basic foundation that it was God who did it [created] in the first place.

VIP members also celebrated the increased diversity of ASA over time. While acknowledging that ASA wants to grow further in this area, Moderator Randy Isaac agreed.

Other hopes for the future include seeing continued growth in the number of and attendance at local chapters, engaging further with local churches, attracting as broad a range of committed believers as possible in spite of differing positions on controversial issues, and continuing to reach out to students and early career science professionals.

### ASA Honors 50-Year Members at Annual Meeting

*The following VIP members were recognized for their 50 years of membership at the State of the ASA meeting. Terry Morrison was the only one able to attend the meeting, but all are deeply appreciated.*

Richard E. Carlson  
Vernon J. Ehlers

Peter D. Esser  
Richard L. Humphrey

J. Terrence Morrison  
Robert C. Newman

Sir Ghillean Prance  
Richard L. Ruble



**A Message from Lynn Billman**

CWIS is definitely having an impact on ASA! CWIS began in 2013, when women constituted 18% of total ASA members. That number rose to 22% in 2014, 26% in 2015, and 31% in 2016! Among our ASA student members, women number about the same as men—actually slightly more—which is always good news for women anywhere in science and technology. However, we still are working hard to encourage women to fill the pipeline of leadership roles in ASA. While women comprise 31% of total members, only 13% of the Fellows are women. (Similar to other professional organizations, a Fellow in ASA is someone who must be nominated and elected, meeting very high standards for educational and professional accomplishments, and service to ASA or the science/faith community.)

CWIS has a new leader! After helping to launch CWIS, Lynn Billman is needing to focus more attention on broader ASA obligations now. The CWIS Board selected Debra Shepherd to take over leadership, and we are SO excited! Deb is an astronomer and astrophysicist who just earned her Masters of Divinity from Fuller Theological Seminary, and is full of energy for how CWIS can make a bigger impact not only on the ASA itself but also in the broader world of Christian women in schools and workplaces pursuing science and related interests.

**Some Annual Meeting Highlights for CWIS**

It was a historic meeting for CWIS, with women in several key leadership positions within the ASA, including Lynn Billman as President of the Council, Leslie Wickman as new Executive Director, and Vicki Best as Director of Operations and Development. In addition to these strong examples of female leadership within the ASA, CWIS ran an excellent track and several other great events at this annual meeting.

Faith Tucker did a fantastic job of organizing the CWIS track, which

included three different panels titled (1) Man, I Feel like a Woman (Scientist)! (2) Calling All Men! and (3) Ask Not What Your Students Can Do for You.

Speakers on the first panel were Patricia Fitzgerald-Bocarsly, Skyla Herod, and Se Kim. The second panel featured Leslie Wickman and Lynn Billman sharing their perspective as women in science, and Ken Touryan and Andrew Bocarsly speaking about how male scientists can support female col-

leagues and relatives in science. Leslie Wickman emphasized the importance of treating each female colleague as an individual, while other panelists shared research on the experience of women scientists and stories from their experience.

The third session began with Dayna Nelson and Hannah Eagleson briefly discussing some things students are hoping for in a mentor. Then participants convened in small groups to discuss specific strategies for supporting students through mentoring.

Participants noted that the panelists were engaging and insightful. One male attendee observed, “The panel on Christian Women in Science was very well done and very relevant, especially to me as a male scientist who is involved in mentoring many students, including many females.”

CWIS also hosted a discussion on the State of Women in the ASA (open to all), a morning walk, and a lunch. In spite of a little extra excitement when a fire alarm interrupted the CWIS lunch, some good connections were made and participants were able to continue conversation later on.



generously stayed a long time and engaged students in conversation, and the students lingered into the evening conversing with speakers and each other.

Another fun highlight cosponsored by ASA and InterVarsity was a breakfast conversation on webcomics, led by ASA council member and past president Johnny Lin. Despite the 7 am start, students turned out in good numbers and discussed favorite webcomics. Some even tried their hand at producing a comic.

It's a perfect time to expand the student track, and thanks to God's provision through a grant we'll be doing that in 2017. InterVarsity's Emerging Scholars Network (ESN) has received a grant to expand the ASA student track for next year. The John Templeton Foundation and Fuller Theological Seminary are providing grant funding through a program called Science and Theology for Emerging Adult Ministries (STEAM). The program provides grants to various young adult ministries engaging in faith/science conversations, and it has awarded \$25,000 to ESN to launch a new faith/science engagement project.

The ESN project has four components, all designed to strengthen and inform each other: (1) ESN will publish a monthly faith/science curriculum based on actual student questions and drawing on the expertise of ASA members at the ESN blog ([blog.emergingscholars.org](http://blog.emergingscholars.org)); (2) ESN will collaborate with InterVarsity campus graduate student groups at secular schools to run discussion groups based on the curriculum; (3) ESN will host an expanded student track at the 2017 ASA Annual Meeting in Colorado, and encourage students from the campus discussion groups to come; and (4) ESN will publish the faith/science curriculum in booklet form for further use by young adult discussion groups.

We hope that this project will lead to another record-breaking year of student engagement, to a strong turnout from students at secular schools as well as at Christian colleges, and to lots of great discussions over time.

## Pilot 2016 Student Track with InterVarsity, Grant to Expand Student Track in 2017

With the record-breaking registration of 57 students, it was the perfect year for a pilot student track at the annual meeting. ASA was able to collaborate with InterVarsity's Emerging Scholars Network (ESN) to run a pilot student track and activities. Experienced panelists from academia, industry, campus ministry, and other areas shared on the following topics: Growing Spiritually through Your Work in Science, Finding Christian Mentors/Community in Science, Thriving as a Science Student (Graduate or Undergraduate), and Talking to Secular Colleagues about Faith.

The track was well attended, and comments from attendees included "The specific focus on Students/Early Career was great and the speakers were fantastic." Participants commented on individual sessions as well. One noted, "The panel on talking/sharing faith with secular colleagues was excellent—having this every year would be an excellent idea (and maybe make it longer too!)." Another said, "The Students/Early Career panels were all excellent! I particularly appreciated the panel on Thriving as a Science Student—the panel members all had successful positions and great insight into what it means to thrive in general."

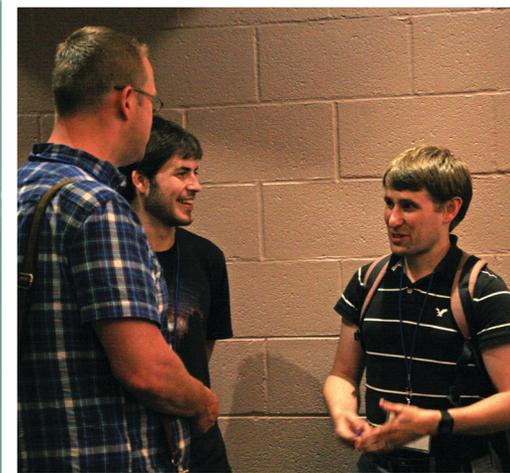
InterVarsity's Emerging Scholars Network also cosponsored some fun activities. Highlights included the InterVarsity/Meet the Plenaries reception. All the keynotes

# CSCA Events at 2016 Annual Meeting

Stay tuned for more CSCA news in the next newsletter!  
By Mark McEwan

We had around twenty members of the Canadian Scientific and Christian Affiliation (CSCA) make the trip to our annual meeting this year, including eight speakers (talks, panels, & devotions). Of particular note was a presentation by William Sikkema (from BC, now at Rice U), entitled “Carbon Nanotechnology, Neuronal Interfaces, and Self-perception.” He has since published his creation of a potentially life-changing nanomaterial for healing spinal cord injuries (C. Kim, W. K. A. Sikkema, I. Hwang, H. Oh, U. J. Kim, B. H. Lee, J. M. Tour, “Spinal cord fusion with PEG-GNRs (TexasPEG): Neurophysiological recovery in 24 hours in rats,” *Surgical Neurology International* 7 [Sept. 13, 2016]).

Four CSCA scholarship winners (funded by Templeton World Charity Foundation, Inc.) from Regent College, King’s U in Edmonton, and UWaterloo also attended. The experience challenged their communication on science-faith issues (A. Reeves), to think beyond Western-centric approaches (D. Nelson), and to seek Christian unity amidst scientific disagreement (C. Kemna). The opportunity to engage with scholars and fellow students was most welcome for all: “While many of us differed on the details; the lively conversations were always joyful and mutually affirming” (T. Opperman).



## Other Activities

There were a multitude of other exciting activities at this annual meeting, and we hope you enjoy these brief descriptions of some of the happenings, as well as pictures of the ASA community connecting.



## Field Trips

As usual, many ASA members headed out to field trip options before the meeting. They included Crystal Cove State Park, the Joshua Tree National Park, and the San Gabriel Mission and the Huntington Library. Crystal Cove State Park is a well-preserved example of 1930s and 1940s coastal development in Orange County. It also features a new 1/2-mile environmental study loop with field science stations, of interest to ASA members.



Joshua Tree became a national monument in 1924 and a national park in 1994, and was suited for an ASA field trip partly because it is the intersection of two distinct eco-systems—the Colorado and Mojave deserts. ASA members had a chance to visit this famous park, since it is relatively close to Azusa Pacific.

## Volleyball Tournament

Volleyball is an ASA tradition, and an excellent way for ASA members to get out and have fun, plus put some physics study into action! As InterVarsity Emerging Scholars Network Associate Director and long-time ASA member Tom Grosh said, “Volleyball with ASA members is a great opportunity to hang out and have fun with members at the annual conference. Can’t wait to serve it up again next summer in Colorado!”



The third field trip contained two destinations. The San Gabriel Mission grounds, in addition to housing the original Moorish-style church, hold a vineyard that helped introduce large-scale viticulture to the region, a museum, and water structures that allowed this mission to be agriculturally successful. The Huntington Library, Art Collections, and Botanical Gardens in San Marino were once the personal estate of railroad magnate Henry E. Huntington. Huntington was a collector of both art and rare and antique books. His book collection included many books on the history of science, and the library has a permanent display of some of these in their “Beautiful Science” installation. The backdrop to this amazing collection is 120 acres of distinct gardens, including Japanese, Chinese, rose, and desert gardens.



# Members in Glory

## R. David Cole

(1924–2016), chemist

Dave Cole arrived in heaven on Sunday, March 13, 2016. He joined the biochemistry department at UC Berkeley in 1958. He retired as Professor of Molecular and Cell Biology in 1990, and as Assistant Dean in the College of Letters and Science in 1992. The university presented Dave the Berkeley Citation in 1992. He also served as a Westmont College trustee for 12 years.

The research Dave did with his students throughout his career concerned the structure and function of proteins. He published more than 200 articles and book chapters on his research. He was in that first generation of biochemists who revolutionized the field in the 1960s and 1970s.

As an ASA member and very much interested in faith and science connections, he authored several chapters and articles on theological and ethical implications of genome research, for example, “Do Genes Control Us?” chapter 4 in *Whose Image? Faith, Science, and the New Genetics*, ed. John P. Burgess (Louisville, KY: Geneva Press, 1998). He taught many Sunday school classes over the years on faith and science.

While Dave had numerous professional accomplishments, he never talked about them and those are not the things he will be most remembered for. He will be remembered for his humility, his sense of wonder and gratitude, his love for God, his whole-hearted and unconditional love that extended not only to his immediate family, but also to his students, colleagues, church, and extended family and friends.

## Thomas Fulton Cummings

(1926–2016), chemist

Thomas Fulton Cummings, aged 90, died on April 20, 2016, at his home in Merritt Island, FL. He was born October 25, 1925, in Taxila, India (now Pakistan).

He completed a PhD in chemistry at Case Institute of Technology. In 1952 he took a position in the chemistry department at Westminster College in New Wilmington, PA. In 1955 he moved to Peoria, IL, where he taught in the Bradley University chemistry department for 42 years, retiring in 1997 at the age of 72. He earned Bradley’s Putnam Award for Excellence in Teaching in 1990. He spent the 1987–1988 sabbatical year at the Analytical Institute in Vienna, Austria.

In 1973, he returned to the US from his sabbatical year at Birmingham, England, via a 26-foot sloop. Crossing the Atlantic Ocean by a small boat was no small feat, as recounted by his wife in the December 1974 ASA Newsletter.

Tom was an ASA Fellow Emeritus, having joined ASA in 1953. He served on the ASA physical sciences commission in the mid-1960s and joined the *JASA* Editorial Board in 1963. He was a nominee for the ASA Executive Council and participated in many annual meetings.

## Joseph Spradley

(1933–2016), physicist, historian of science

Joseph Spradley passed away after a battle with cancer on March 29, 2016, at home. Joe earned his PhD in physics from UCLA. He taught physics, astronomy, math, and history of science at Wheaton College from 1959 to 2014. He had additional teaching assignments in Beirut, Lebanon; Zaria, Nigeria; Nairobi, Kenya; Cairo, Egypt; and Jinan, China. Three times a week you could find Joe performing stunts off the 3-meter diving board at Wheaton College until 2015.

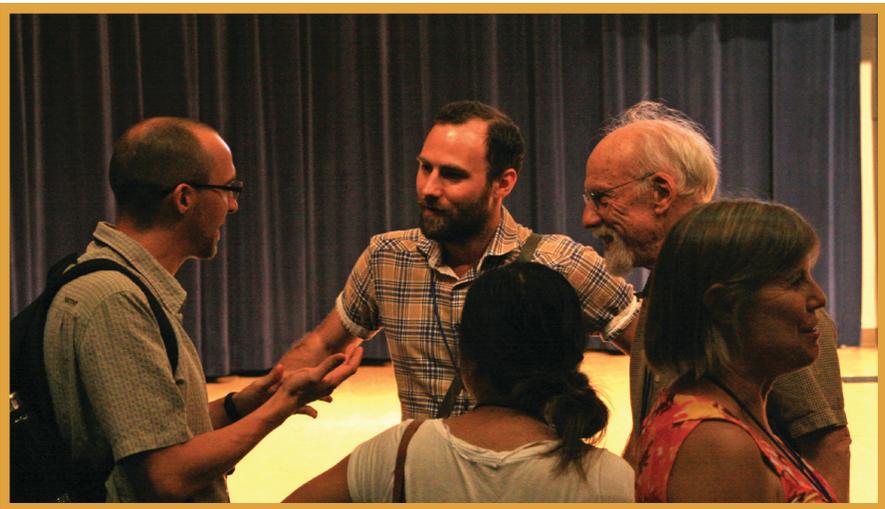
Joe joined the ASA in 1961. He published a dozen articles in *PSCF* and gave numerous plenary and contributed talks at ASA annual meetings and local chapter meetings. He served on the ASA History and Philosophy of Science Commission in the early 1970s. With his soft-spoken, mild-mannered style, he influenced countless students and ASA members.

He excelled in a broad range of disciplines in the natural sciences as well as in the history and philosophy of science. “A Christian view of the physical world sees nature in the light of Scripture and with a concern for culture. This involves a creative view of nature that recognizes the world as real and good,” he wrote in a chapter of *The Making of a Christian Mind: A Christian World View and the Academic Enterprise*.

Joe and Marilyn often had Wheaton College students over to their home and hosted dinners for Sigma Pi Sigma (SPS physics honors society) inductees in the Wheaton College chapter. He was working on a project dealing with women scientists at the time of his death. It was far enough along that it was the basis of a Sunday school class at his church, Immanuel Presbyterian in Batavia, Illinois, from September to December 2015. He had planned to teach the class, but his declining health required that others use his well-researched material each Sunday.



A few more  
images  
from our  
Annual  
Meeting.



The Newsletter of the ASA and CSCA is published quarterly for its membership by the American Scientific Affiliation.

Please send Newsletter information to the Editor: Hannah Eagleson, [hannah@asa3.org](mailto:hannah@asa3.org)

Send Coming Events information to David Fisher, [dfisherasa@gmail.com](mailto:dfisherasa@gmail.com).

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**Save the date for ASA Annual Meeting 2017:**  
Colorado School of Mines, July 28–31, 2017



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