

From the Editor

Arthur N. Popper



(Re)Meet *ECHOES*¹

I am starting my column by (re)-introducing members to *ECHOES*, a quarterly news and information publication of the Acoustical Society of America (ASA) from 1991 to 2013. I do this because as I randomly browsed the 23 years of issues, I felt like I used to when browsing the stacks in a great science library (way before the Web). I vividly recall the fun and excitement as I randomly opened journals and discovered articles and nuggets of knowledge that were either directly related to my research or perhaps that opened new areas of thinking. I had the same feeling when browsing *ECHOES* where I “discovered” material about the ASA, meeting reports, brief research reports, and many other things that I’d long forgotten or perhaps never knew. *ECHOES* is online at acousticalsociety.org/echoes.

ECHOES started in spring 1991 and continued quarterly until the end of 2013. For several years, it overlapped with *Acoustics Today* (*AT*), which first appeared in 2005. Each publication had a place. Whereas *AT* focused on longer scholarly articles, the mission of *ECHOES*, as defined by its first editor, ASA Fellow Alice Suter, was twofold: to provide brief technical articles about topics that would be interesting to and understandable by all ASA members and to provide news and current information about the ASA, including meetings and reports. (Before Dr. Suter took over as editor, she and Charles Schmid, then executive director of the ASA, served as ad hoc editors.)

In 1997, Dr. Thomas D. Rossing became *ECHOES* editor, and he continued in this role until its demise. Tom added additional material including a section called “Scanning the Journals” where he reviewed reports on acoustics from outside the pages of ASA publications. Tom passed away recently, and this issue of *AT* has an obituary honoring him (see page 85).

Rather than going on about *ECHOES*, I just encourage members to browse its pages. In particular, look at the

issues in 2004 when the 75th anniversary of the ASA was celebrated. Happy discovering!

This Issue of *Acoustics Today*

Our first article, by Colleen G. Le Prell, discusses something of great relevance to many members of the ASA, loss of hearing (see articles at bit.ly/AT-Health). Colleen gives an interesting overview of what happens when someone has a hearing loss and then provides insight into some of the amazing approaches being tried that could, many years from now, offer treatment to possibly reverse hearing loss.

Our second article is by Roy Manstan. Roy is very interested in both history and sonar, and he writes about the origins of sonar in World War I. Sonar arose because of the predation on Allied vessels by German U-boats and the quest to be able to find and destroy the subs. Many well-known scientists and engineers were involved in sonar development, and Roy introduces us to many of these people. You can find other articles on this history of acoustic devices and issues at bit.ly/AT-History.

Our third article focuses on the function and form of percussion instruments, a nice addition to our overall collection of articles about musical instruments (see bit.ly/3c4ltqi). The authors, E. K. Ellington Scott (bit.ly/AT-Scott) and Andrew Morrison, discuss the physics of drums of various types and focus on the origin of the modern jazz drum kit. As part of the article, Ellington and Andrew demonstrate the instruments with several demonstration videos that are, at least in my view, totally fascinating and make the article “come alive.”

In the fourth article, Dirk-Jan van Manen and Johan O. A. Robertsson provide insight into immersive wave experimentation and into approaches to providing virtual experiences to help people “hear” acoustics of spaces that have yet to be built. To help readers understand and appreciate this virtual environment, Dirk-Jan and Johan evoke ideas from *The Matrix*, and all fans of those movies will find this article a “must read.”

¹ I thank Elaine Moran for sharing memories about *ECHOES*.

The fifth article by Pavel Zahorik and Matthew T. Neal also discusses acoustic space but from the perspective of reflected sound. They ask the value of acoustic reflections and demonstrate how reflected sound can be a major problem in some instances, whereas it is very useful in others, such as, when controlled, in a concert hall.

I very much recommend looking at the essays in our “Sound Perspectives” (SP) section. Our first SP is part of our “Conversation with a Colleague” series (see bit.ly/ATC-CWC). This essay, edited by Micheal Dent, is by Robin Glosemeyer Petrone, an architect with expertise in the design of acoustical space. Robin shares insights into her work and career as well as into her very important contributions to the ASA.

A major function of the ASA is in acoustical standards and so *AT* has had several essays on the program (see bit.ly/AT-Standards). In this issue, ASA Standards Manager Nancy A. Blair-DeLeon talks about the latest efforts in our standards program, with particular focus on education about standards.

This is followed by an essay by Shane Guan, Jill Lewandowski, and Erica Staaterman about the Bureau of Ocean Energy Management (BOEM). BOEM is a part of the US Department of the Interior that supports research on anthropogenic sound and marine life, particularly that associated with the development of offshore energy and mineral resources. This essay is part of an informal *AT* series on the agencies that provide funding to members of the ASA that started with an essay about the National Institute on Deafness and Other Communication Diseases (see bit.ly/AT-NIDCD). I invite representatives from other agencies, in the United States and abroad, that fund ASA members to contact me if they would like to discuss possibly having a similar essay in *AT*.

One way that the ASA supports many of its functions and many of its members is through the Acoustical Society Foundation Fund. The work of the Foundation is reported to members of the ASA annually in *AT*, and the 2022 report by James H. Miller, Fund chair, is in this issue. Jim uses the essay to highlight some of the recipients of various awards given out annually to members. A complete set of Foundation reports is at bit.ly/ATC-Foundation.

Several of the ASA technical committees host student competitions, and we are delighted share these with the *AT* audience, with a focus essays on the work of the winners and their projects. Thus, in this issue, we have an essay by Christina J. Naify and Michael R. Haberman about a student challenge in additive manufacturing. The descriptions of the winners and the brief videos that resulted in the awards show off three amazing young people who are the future of acoustics.

AT also hosts an annual article from the ASA Women in Acoustics (WIA) group (see past WIA columns at bit.ly/AT-WIA). In this essay, Tracianne B. Neilsen and Anna C. Diedesch focus on the value of involvement in the ASA in career development. They do this by featuring descriptions of two remarkable long-time ASA members, Alexandra Tolstoy and Fredericka Bell-Berti. Also note that Alex, besides be an outstanding scholar, is also a very fine water colorist. Her paintings have graced several *AT* covers, including the wonderful cover of this issue.

As many of you will know, we regularly have an *AT* intern, a young member of the ASA who wants to be involved in science communication. Each intern makes contributions in different ways. Our 2022 intern, Dr. Erik Alan Petersen, has been developing additions to “*AT* Collections,” and he will be writing several essays about the value of study abroad as part of graduate or postdoctoral development. In the current essay, Erik talks about United States students working abroad for some or all their training. Many of our members will certainly “relate” to the experiences Erik describes. In a future essay, he will discuss the experiences of students coming to the United States for some of their training.

In our final essay, Ning Xiang and K. Anthony Hoover explore the history of ASA Fellows. In doing this, they examine the history of the Fellows program from its inception and provide a web link to a database of past Fellows.

I end by mentioning again the *AT* intern program. Interns are still in graduate school or newly out, such as in a postdoc or first acoustics-related professional position. Anyone interested in the 2023 intern position should drop me a note at apopper@umd.edu.