

## From the Editors

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D. Keith Wilson and Kathy Vigness-Raposa



Mindfulness is a prominent topic these days.

When you write about your research, are you mindful of why you are writing and who the audience is? These are the basic questions to consider with any science communication. Communication inherently involves the reception and comprehension of information; mere exchange of words is noise, but with communication, there is a genuine connection and understanding of the content among the participants. In science writing, we are perhaps predisposed to viewing communication of our research as a routine component of a larger process, namely the scientific method, the end result of which is a manuscript in a peer-reviewed publication. A problem is identified; experiments are designed, conducted, and analyzed; and results are communicated to colleagues within the discipline with the goal of advancing the field of study.

When we write about our research, however, we make choices, consciously or subconsciously, about what is important and interesting to communicate, what prior knowledge readers may have about the topic, and how we will persuade them of the value of the research topic and results.

Whether we are mindful of it or not, our personalities, motivations, and aesthetic preferences can also play a role, although we may be taught that these factors are best removed from scientific writing. One of us (DKW) recalls how his early career aspirations touched on both science and art. After settling on science, he has wondered over the years whether his scientific writing style is inclined towards painting aesthetic pictures with multiple elements fitting together in a harmonious way. The other (KVR) started her science career in high school education, transitioning to graduate studies after a year with eighth graders. However, the passion to communicate science to others outside of our discipline has persisted and definitely influences her writing style.

Steven Pinker, in his book *The Sense of Style*, stresses that many stylistic choices in writing are situational, depending on the intended audience and the psychology of how they perceive the words on the page. For example, writers are often counseled to avoid the passive voice, but it may have a legitimate place in scientific writing when describing a process in a manner intended to deemphasize the individual performer(s). Connecting back to the theme of mindfulness, scientific writing will be most effective when you carefully consider the intended audience and use a style that is engaging and understandable to them.

Mindfulness to these topics is particularly important when writing for a publication intended to appeal to a broad audience, such as *Acoustics Today*. Habits developed when writing refereed journal articles can become barriers when communicating to readers outside your specialty. Please *do* try to capture the joy of the research experience and why the topic excites you! If you have fun writing an article, readers should have fun reading it.

This issue features six regular articles. Hopefully you will find all or at least some to be enjoyable reading! First is “The Importance of Being Tortuous,” by Keith Attenborough, which plots the many twists and turns of recent research on the complexities of sound propagation in porous media and efforts to optimize desirable material properties such as sound absorption. This topic has broad applications to noise control, atmospheric acoustics, and ocean acoustics.

Have you ever wondered how you can often guess the age of a person solely from hearing them speak? Our second article, by Mark L. Berardi, Sarah Hargus Ferguson, Eric J. Hunter, and Benjamin V. Tucker, covers this fascinating topic. The discussion weaves together the physiology of speech production and our auditory perception.

Next, Stephanie T. Grady and Junenette L. Peters sound the alarm on the ever-increasing consequences of noise to public health. All too often, noise is seen simply as an

annoyance. But it can have very real, adverse impacts on our physical and mental health, which must be addressed in a multidisciplinary manner and better communicated to the public.

Metamaterials, which conglomerate multiple materials and inclusions at a microscale to create novel properties at a macroscale, are a hot topic in acoustical research. This issue provides an article by Nicole Kessissoglou, Alexei T. Skvortsov, Gyani Shankar Sharma, Ian R. MacGillivray, and Karthik Modur on the history and recent developments of metamaterial coatings for marine vessels, which can make ships nearly undetectable and endure harsh environmental conditions.

Do you prefer your live music with sharp clarity and definition or with lush reverberation? The fifth article, by Jeremy Rothman Salesin and featured on the cover, describes how computational advancements in architectural acoustics are ushering in a new age where we can select concert seats tailored to our personal listening and visual preferences.

Finally, the last article comes from the *Acoustics Today* Editor, D. Keith Wilson; it focuses on statistically modeling random signal behavior, which is useful in many applications, from noise control to preventing fading in communication signals to inferring properties of the environment. Surprisingly, some recent, fundamental developments in mathematical statistics enable new models for problems commonly encountered in acoustics.

This issue also features several Sound Perspective columns. With “In Search of a Cochlear Implant and Beyond,” Aravind B. Akella describes his own early experiences with a cochlear implant. It provides an inspiring example of how acoustical research can provide breakthroughs that improve lives.

For the winter 2024 issue of *Acoustics Today*, the previous Editor, Arthur Popper, assembled a collection of essays on the topic of serendipity. In “Reframing Serendipity in the Current Climate,” Adrian K. C. Lee contributes a thoughtful perspective of how culture shapes our perception of the role of serendipity and setbacks in our lives and careers.

Next, members of the Acoustical Society of America (ASA) Publications office, namely James F. Lynch, Elizabeth A. Bury, Kat Setzer, Helen Wall Murray, and Kelly Quigley, provide an informative, encouraging update on ASA publications during this time of rapid change.


This issue also features a column from the ASA President, Michael Vorländer, which examines the ASA past, present, and future. In particular, the column covers the Society’s financial picture and strategic initiatives in areas including supporting and attracting members, outreach and advocacy, and enhancing meetings and member engagement.

No matter your field of expertise, we hope you find the articles in this issue interesting and informative — as well as accessible! And, as always, if you have suggestions for articles for future issues, please feel free to reach out to us at [AT@acousticalsociety.org](mailto:AT@acousticalsociety.org).

#### Reference

Pinker, S. (2015). *The Sense of Style: The Thinking Person's Guide to Writing in the 21st Century*. Penguin Books, New York.

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