

PRESIDENTIAL ADDRESS

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WORK TOGETHER

“As President of your Society, I have taken the liberty of reviving the annual address. It seems to me that each year your president should have a message for you. In Paleontology we have many problems, not only scientific ones but problems that involve our very existence as a society and as a Science. Now that the custom has been renewed, I hope that future presidents will have the desire to talk over affairs with you.”

These words are not my own, but those of G. Arthur Cooper, a remarkable brachiopod paleontologist who worked as a curator at the National Museum of Natural History for many years. A man of extraordinary focus and work ethic, a man I have enormous respect for, and who served as the President of the Paleontological Society in 1958, when he gave the Presidential address I just quoted from (*Journal of Paleontology*, 32:1010–1018).

In talking with some colleagues on Council over the past year, we realized that we agreed with Gus Cooper, and so decided that in the two-year service as President, we would revive the presidential address in the first year with a “message” address, and in the second year with a research address. Next year, be prepared to hear all about brachiopods!

So what is my message or vision for the Society? I gave this question quite a bit of thought over the last few months—I scribbled notes on napkins at restaurants as thoughts came to me, or on long airplane flights or, I confess, during faculty meetings, and eventually came up with a list of possible messages that I felt quite proud of. As I started to flesh them out a bit more, I decided that it would be prudent for me to read more of the previous Presidential addresses, for historical context. I soon realized that, of course, all of my trenchant insights had been stated many times before, and far more eloquently, by those who served this society over many decades. Where did that leave me? After some soul-searching, I decided to follow the example of my dissertation advisor, Dan Fisher, and return to first principles for inspiration. Whenever some issue or other was bothering me in graduate school, and I would ask Dan for advice, he would invariably give me his opinion from a completely different and much more fundamental perspective than I could ever muster, and it would allow me see those issues in a different light. I am very grateful to him for that. I hope that there might be a fundamental thread of insight in these four messages that I share with you now, that allow you to see our field in a renewed light.

MESSAGE #1

REALIZE HOW FORTUNATE WE ARE

Take a moment to remember when you first realized that you wanted to become a paleontologist—was it during a field trip as an undergraduate, looking for fossils in the dark by the headlights of the class field vehicle? Or during first grade, digging in the dirt to try to find a dinosaur? Or that Aha! moment when you really grasped what evolution as “change over time” was about? Whatever the memory, it is undoubtedly a very fond one. I would wager that almost every person in this room is overcommitted with tasks, has too little time for

research, and feels occasionally overwhelmed by the stressful pace of professional life. But we can’t afford to surrender to pessimism and cynicism about our chosen field of study. Remember why you love fossils, why you love the study of evolution, why you love paleontology. Each day, we have the luxury of spending at least some of our time learning about the fossil record and the history of life; most of us then have the privilege of teaching, either formally or informally, what we have learned about paleontology to others, and illuminating their understanding of the natural world we live in. How different is the world today than in the geological past? Is the present the key to the past? How might learning about the past be the key to preparing for the future? It is a great gift to be able to earn a living in the way that we do, and it is wise to remind ourselves of that gift from time to time. To quote Coach Jim Harbaugh (since the 49ers won their football game today): “Who has it better than us? Nobody!”

MESSAGE #2

APPRECIATE THAT THERE ARE MANY DIFFERENT WAYS TO CONTRIBUTE TO THE FIELD OF PALEONTOLOGY

I could very happily tell all of you right now to stop doing what research you’re engaged in, and start conducting phylogenetic analyses of the groups for which you have a passion. But I won’t do that—that’s not my job—each one of us has to find what question or process or group or time period or continent we have a burning desire to understand. And the ability and desire to keep those fires of curiosity burning through difficult times is what drives the best scholarship. There is such a rich diversity of questions and issues and puzzles in paleontology, we will never be able to answer or solve them all—and that is perhaps the most exciting aspect of our field. Not every paleontologist has to work on the same subset of questions, or work on the same questions for an entire career. Interests evolve, methods evolve, technology evolves. Cooper’s address in 1958 caused quite a bit of consternation, because the problem that he articulated was the decline of “pure or old-fashioned” paleontology—meaning taxonomy, morphology, and biostratigraphy. I understand Cooper’s rather pessimistic concerns and recognize that those very concerns are present today among some members of the Paleontological Society—as a morphologist and phylogeneticist, I know that some think this type of work is considered dull or boring, or worse yet, irrelevant to tackling the “important” questions. And yet, the ability to ask broader and more synthetic questions in our field is dependent upon having the “pure” knowledge of specimens and localities and species and stratigraphy. Not everyone has to engage solely in specimen-based research, but neither do fossil specimens have to be ignored entirely. There is plenty of room for multiple approaches to the vast, vast range of questions to be answered in paleontology. Diversity of approach is a very healthy thing.

MESSAGE #3

CONTINUALLY STRIVE FOR EXCELLENCE, WITH INTEGRITY

People who take the time to find out what they really enjoy doing—whether it is geochemical analysis of fossils, or

statistical analysis of fossil communities, or alpha taxonomy or phylogenetic analysis or biomechanics, are likely to be happier and do a better job than those who don't take the time to find out what they enjoy. Do what you do, to the very best of your abilities, throughout your entire career. Don't settle for just good enough; don't cut corners in research; don't short-change your colleagues in time or intellect; don't simply follow the crowd in choosing a research direction. Focusing more on quality and less on quantity is a goal that, I think, will lead to greater overall excellence in paleontology.

MESSAGE #4

WORK TOGETHER, AND HELP EACH OTHER TO SOLVE PALEONTOLOGICAL PROBLEMS

Most paleontological problems worth tackling at this point in the history of our field require diverse sets of skills, diverse abilities, and diverse perspectives—one person doesn't have to do it all, and most individuals can't do it all single-handedly. Those who are willing and able to benefit from colleagues around the world, from their different experiences, different cultures, and different areas of expertise, will be better positioned to make major strides in our understanding of the history of life. Combining strengths can yield extraordinary results. Facilitating this type of communication and interconnectedness is one of the major goals of the STEPPE consortium. And the new NSF Earth-Life Transition program is structured specifically to encourage the type of interdisciplinary collaboration that can help us find answers to vexing paleontological questions, in a geological context. But not all of us are best

suited for this type of large-scale, formally organized, collaborative work; many of us could benefit from locating just one other person with similar interests but different skills, to form small research partnerships. Large and small-scale collaborations can have great value in paleontology.

Gathering together a diverse group of outstanding, principled scientists, each with a particular passion, talent, and ability, each one doing what he or she does best, enjoys doing, and is very good at doing, can facilitate remarkable discoveries and promote clever and creative solutions to the most intractable problems. Being generous with our time and sharing our knowledge and experience and enthusiasm, we can help to make each other better scientists, and can then make better sense of the evolution of life on Earth. My main message for paleontology is that our strength lies in collaborations, both large and small, and in our willingness to work together more effectively, in a wide variety of ways, to solve the big questions that keep us up at night.

Since I began with a quote from Cooper's presidential address, it seems fitting to end with one as well: "The paleontology of the future will require an imaginative and devoted group to revivify it and to raise its standards. Any change for the better must come from you. This is a challenge well worth your best effort." Let's all try to give this our best effort going forward. Thank you so much for listening.

Denver, CO
October 2013