

PRESIDENTIAL ADDRESS

Commitment, Collaboration and Communication: The Backbones of Geoscience*

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*Adapted from the Geological Association of Canada Presidential Address, as given June 1st, 2016 in Whitehorse at GAC-MAC 2016: Margins through Time.

This work, whether it be in the form of my original oral presidential address with a few slides for emphasis, or this later transition to a publication in the Association's flagship journal *Geoscience Canada*, is truly the most daunting part of being President of the Geological Association of Canada (GAC®). I have pondered on what topic to speak to, and how I would present it, ever since I made the decision to accept the Vice-President role – I did know that this was coming. The past-presidents on the nominating committee do not make it any easier – their advice that “you can speak about anything you want” did not help at all! Good grief! To address peers, colleagues, mentors and students to speak about anything; why would anyone take this on? I knew, however, from almost the first moment that I wanted to address the dynamic nature of geoscience and the things that are needed to preserve it – hence, the three C's in my title: Commitment, Collaboration and Communication. This idea inadvertently answered the question of why anyone would actually take on the presidency of GAC. Such things are done by those who are truly passionate about geoscience, and care about these ideas. I have been honoured to serve in this way.

The title and the messages have come from a place in my mind that struggles to share what it is we do and how we keep up with the ever-evolving hypotheses, ideas and technologies in our dynamic vocation. How do we as geoscientists, or as a wider organization, ever keep up with advances? I think the answer is simply put – being a geoscientist is not just a job or a career path – it is truly a lifestyle (choice) and those of us who are truly passionate about geoscience ('lifers,' as I call us), have a very real and heart-felt commitment to what we do and how we do it. We miss birthdays, anniversaries, weddings,

funerals, and much more, leading some around us to suggest that we do not care, but that could not be further from the truth. Geoscientists are passionate folk who are so extremely focused on what they are doing that they often forget that there are other things besides their samples, drills, rocks, laboratories, classrooms or stock prices. Fortunately, there are many things we can do to accentuate our knowledge and many forums through which we can improve, evolve and be successful together as geoscientists. The passion we hold for our calling is an important part of this, but there are more specific things that are essential to the success and future of our profession.

I feel that success in the geosciences is highly dependent on Commitment, Collaboration and Communication. Without these, discoveries are not made, understanding is not advanced and the building blocks of our resource-based lives will not exist. Those who contribute to associations such as the Geological Association of Canada, the Society of Economic Geologists (SEG) or the Prospectors and Developers Association of Canada (PDAC), to name just a few, help all of us to stay current and achieve success in our work. The people who serve in these kinds of organizations truly do this out of a sense of unstated duty – that is, Commitment – and it is this that defines the 'lifers' I have already alluded to. No one is making money offering a short course or writing a textbook, or writing a scientific article for that matter; you do these things because you are fully committed to your passion, your chosen field. In mineral exploration or scientific research, or any aspect of geoscience, Collaboration is a vital part of how we approach things – we can achieve far more working together than alone. This in itself depends on Communication, not just within our discipline, but beyond it. There is more often than not a misconception as to what geoscientists actually do, and we all should feel the need to educate others.

Many people think that what we do is very adventurous, bordering on cavalier or even like the exploits of Indiana Jones – but the truth is very different. Geoscientists actually act with great planning and precision after doing lots of background work and research, and results may take many years to create minor advancements. Also, what we do varies widely (in location, accommodation and activity) and it changes over time – from field or laboratory-based work, to interpretation and presentation, to modelling and mining and beyond. It is far broader than most realize. Geoscience is a dynamic field, and never static. We are involved in mineralogy, climatology, materials supply, chemistry, construction, conservation, paleontol-

ogy, energy, forensics and even in medicine. But why should we try to communicate the breadth of what we do? The answer is simple – because we find and provide the materials that give us things, from space shuttles and supercomputers to mobile phones, and from posh jewellery to simple forks, knives and spoons. The value of geoscience is generally poorly explained to anyone other than those we work most closely with, even though we would not have our 21st century technological society without geoscience. As the saying goes, “If it cannot be grown, it must be mined,” and the latter part always requires geoscience in some way. Nevertheless, mining is often construed as a negative by current society and its merits remain often unsung. Many associations, including the GAC, have geoscience outreach programs that focus on communicating to the public, to foster collaborations with other branches of geoscience, and provide information to government, educational institutions and others explaining what geoscience is, what it does, and why it is needed. This effort must continue! Particularly if organizations such as GAC are to continue to provide the hub, the nexus, the coalescence point that we all utilize.

Why should or would anyone want to be a geoscientist in the first place and why should geoscientists volunteer and/or get involved? There is a marvellous, unattributed quote that explains this well:

*“Geology is a magnificent and unique science. What makes geoscience unique, you may rightly ask; well, a good geologist has to know something of everything: physics, chemistry, geography, math, biology, engineering, and many, many more. But it’s worth it, oh how it’s worth it!”*¹

Geoscience of any type is not a ‘sit still’ career; there are always new things to apply, to do, to test and to explore. These things are done through working with our colleagues and peers and sharing our ideas, theories and geoscience knowledge. We do not do our work alone, nor do we do it without some kind of unrelenting drive to discover and achieve. We geoscientists also have tremendous capacity to deal with economic cycles, extreme conditions, weather, changing cultures, a great variety of languages and customs, and much more. All of this comes from the first of the C’s – the Commitment that I have alluded to as defining the ‘lifers’ of geoscience. There is so much we can do, and so many areas where we can contribute in our varying specialty fields, but all require a strong focus, and a drive to achieve, discover and advance. In other words, they demand Commitment.

As we all know, geoscience is always evolving; it can be truly exciting and inspiring as there are a multitude of techniques, theories, technological advancements and innovations that can help us grow and to develop as geoscientists. We need to be aware of all of these new things and committed to undertaking the work to grasp them. As John Thompson stat-

ed at the Association for Mineral Exploration’s (AME) annual Mineral Roundup conference:

*“Making quality discoveries is, however, harder than ever and, in addition to technical challenges, exploration is complicated by social, legal and other non-technical issues. Over the last 50 years, major step changes in exploration have resulted from radical advances in our understanding of ore-forming processes; new geophysical, geochemical and remote sensing technologies; and new ways to integrate and interrogate data.”*²

All geoscientists need to adapt to and solve progressively greater challenges to make those next discoveries, identifications and develop new understanding. Keeping our discipline up-to-date and meeting these challenges brings me to the other two C’s – Collaboration and Communication. The ways in which we collaborate and communicate include field schools, field trips, tours, visits, focused workshops, short courses, and writing papers and articles. Much like geoscience discoveries or developments, these things do not happen in a vacuum. Other aspects of Collaboration and Communication include mentorship and our participation in conferences, trade shows, short courses and colloquia. Most of these ways to work together require a host, a venue or a champion that provides a mechanism to share our knowledge as it grows. Annual conferences, regularly published journals and newsletters, and maintained networks, including those on social media such as Facebook and LinkedIn, provide outlets for us to achieve this collaboration. Organizations such as GAC, MAC, CSPG, PDAC, SEG, AME, and many others consistently provide these venues and pathways. So in the end, Collaboration and Communication depend vitally upon the Commitment of those who keep such entities viable.

However, over the past 10–20 years most of these organizations have experienced dwindling sponsorships, decreasing memberships and even further contractions in the number of volunteers that help them survive, thrive and provide us with these crucial opportunities. We all have used, and keep on our shelves, important key reference volumes, such as *Facies Models*, *Minerals Deposits of Canada* and the *Atlas of Alteration*. These are just a few examples of widely-known geoscience contributions that have had an influence well beyond Canadian borders. Such contributions do not write themselves, but come from those who are willing to give both their time and their knowledge so that the rest of us can benefit. Diminishing participation in geoscience organizations will, over time, limit our development as scientists and will reduce what we provide back to the world around us. What we do as geoscientists and how we share it truly matters to the world. We should be proud of what we do and the importance of our work. When journalist Rex Murphy spoke at AME’s Roundup 2016, he reminded geoscientists to not be ashamed of what we do, as it is critical to the way of life we have come to want, need, and increas-

¹ Sourced from ZME Science at www.zmescience.com

² Dr. John Thompson, AME Roundup 2016, Vancouver, BC



ingly expect. We mitigate hazards, identify and foster the supply of the raw materials that we need, work to protect the environment by better understanding our surroundings, and we do much more besides those ‘mere’ things. The dissemination and sharing of this knowledge helps society respond to natural hazards, manage our water and air, and in the end manage all of our resources. It also encourages a wider understanding of how the world around us works, what benefits not only geoscientists, but all of society.

The comic strip *Frank and Ernest*³ has a published panel that shows three apparent expeditionists (complete with pith helmets and rock hammers), and one says to the other two: “I’m an internationally renowned geologist. Would you two stop referring to me as a Rock Star?” I believe we geoscientists should embrace the term ‘Rock Star’ and work hard to bring our science and its benefits to our peers and to the rest of the world – we have a lot to offer. To do this we need to be adept at all of my three C’s. Commitment means that we need to keep up with our profession, support it and stay current; Collaboration means that we need to work with our peers and others to make discoveries and advancements; and, last but not least, Communication means that we need to share what we do within our profession, and with the public.

It is especially vital that more of us engage with those professional associations and organizations that we have benefited from in the past – these organizations need our contributions if they are to continue to be the repositories and forums that we have all come to depend upon. These organizations are both the foundation and the back bone of what we do; they give us access to the knowledge, information, ideas and the people that we need to succeed, both individually and collectively.

Commitment, Collaboration and Communication are the reasons why anyone would want to be the president of, or actively participate in, an organization such as the GAC. With fewer individuals willing to give their time and energy to such organizations, there is a real danger that we may lose them and also the knowledge they make accessible to all geoscientists. So in closing, I wish to challenge all geoscientists – be Committed, Collaborate and Communicate well. And above all, become involved in geoscience organizations, if you are not already doing so, and please stay involved if you are already part of this vital framework. Your colleagues and your profession need you, and we will always achieve more together than we can as individuals.

I wish you all the best for continued success in your pursuits, and it has been an honour to have served as your *GAC president*.

*Cheers,
Vicki*

³ As created by Bob and Tom Thaves © 2000

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