

*Introduction of Richard H. Sillitoe, SGA Gold Medallist, Glasgow, 2019, by Jeffrey W. Hedenquist*

Richard H. Sillitoe, the leading practitioner in the profession of economic geology, is being recognized today with the SGA Newmont Gold Medal; this is a momentous event.

Dick's early work was in South America, which led to the publication of a dozen papers prior to the mid 1970s, by the time he was 30. They covered a wide variety of topics related to mineralogy and ore deposits, as well as earth processes such as tectonics, volcanism, and weathering. Many of these papers presented ideas that were new at the time, and like all iconoclasts, Dick suffered push-back from numerous establishment figures. Who was this British upstart, still wet behind the ears?

These publications included the first observations for a relationship between subduction and porphyry copper deposits, a decade before petrologists started to think about subduction recycling. Dick also argued for a genetic association between volcanism and the hydrothermal systems that form porphyry ore deposits - a contentious issue at the time - after observing variably-eroded volcanoes while flying south along the Cordillera, and subsequently ground-truthing some of them. At the end of this formative period, Dick started to consult in mineral exploration, soon becoming involved with the discovery of a variety of ore deposits. His work with industry, while at the same time publishing in leading journals - a dichotomy to some - continues to this day. His published record, over 140 papers in international journals and books at last count, extends from first descriptions of ore deposits, or their reinterpretation, through ore-formation and earth processes, to reviews. One of his more notable overviews, simply entitled *Porphyry Copper Systems*, has been cited well over 1600 times since 2010. In addition to a publication record of which any academic would be proud - with manuscripts penned in his free time, largely on aeroplanes - he has written over 950 technical reports for clients.

For the younger people in the audience, I should back up a bit and fill you in on Dick's early career. While completing a B.Sc. Honours degree in Geology at London University, he supplemented his student stipend with some part-time copywriting. However, on graduation, he was offered a Ministry of Overseas Development fellowship to investigate supergene oxidation and enrichment of copper deposits in Chile; fortunately for us, this is what he chose. Three years later, in the summer of 1968, he was back in London writing when the director of the Chilean Geological Survey unexpectedly showed up and Dick, being

the only Spanish speaker available in the department, was assigned to assist. This fortuitous meeting led to Dick being offered a position in Chile - as Dick says, his only real job - until events three years later led to his departure. This is when the next fortuitous opportunity came by, to advise on a copper project. Dick has never looked back, consulting on nearly 1000 field-based assignments on numerous commodities and ore deposit types in over half the world's countries for more than 300 companies, plus four international organizations and seven governments.

I first met Dick while a research student, when I drove him to the top of a rhyolite dome that had recently been split by a basaltic eruption. Given the steep and slippery slope, I opted for the momentum that speed provides. About half way up - knuckles white from gripping the roll bar - Dick firmly suggested that I slow down. That was the start of his long influence on me, in which he has served as an example to aspire to. I know numerous others who also have had their careers significantly influenced by this itinerant geologist.

If anyone thinks that this is a eulogy, they would be mistaken. Dick's career has been centered on prodigious field-based investigations over more than five decades, and yet he shows little real indication of slowing down, with a good part of the year still spent on assignment.

Coupled with Dick's extraordinary insight, his observations in the field have led to numerous new interpretations, many subsequently demonstrated to be correct, often at the end of a drill hole. However, the best observations and interpretations are of little consequence unless they are communicated, and this is where Dick's mastery of language comes to the fore. He merges a focused discipline - second to none - with the ability to write clearly and concisely, whether it be a company report or an article in *Nature*. Dick's thorough knowledge of the literature is legendary, and his notable recall allows him to build on previous observations and ideas by others, which he cites scrupulously. These are the reasons why I started with the adjective "momentous" to describe today's ceremony, as SGA is recognizing the importance of field work, observation, scholarship and communication. I trust that some of the younger members of the audience may see a way forward, following Dick's example.