

ORIGINS OF ELEMENTS MAGAZINE – PART I: CONCEPTION (APRIL 2001–NOVEMBER 2003)

J. Alex Speer

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Because the Mineralogical Society of America (MSA) is a publishing society, the MSA Council determined at its Fall 2000 meeting that individuals elected Vice President would automatically serve as Chair of the Publication Committee to provide direct exposure to a central aspect of the society. As a result, Rod Ewing, elected MSA Vice President in Fall 2000, became the first Chair of the Publication Committee.

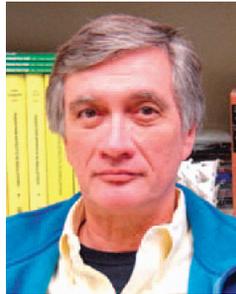
Rod took his responsibilities—whether as a committee member, chair, or an elected officer—seriously. He had the habit of calling the office with questions about various aspects of MSA operations, and did so many times with regards to MSA publications. He never explained why, only that he was curious.

Rod arranged to visit the MSA offices on the morning of April 5, 2001, which were located on 18th Street in Washington DC at that time, while he was in town on other business. He wanted to meet the staff, see the operations, and discuss publications before his return flight that afternoon. During the visit, Rod addressed topics such as *The American Mineralogist*, (AM), the then-active *Geological Materials Research* (GMR, MSA's attempt to produce an entirely electronic journal, which later folded into *The American Mineralogist* as “electronic articles”), *Reviews in Mineralogy and Geochemistry* (RiMG), a proposed new *Journal of Environmental Mineralogy* with the Mineralogical Society of Great Britain & Ireland, and MSA's newsletter, *The Lattice*.

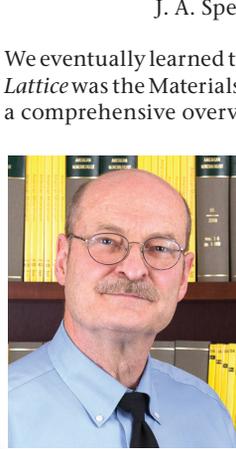
Rod's intense interest in *The Lattice* was unexpected. During his visit, and in Alex Speer's follow-up email that same day, the idea emerged to expand *The Lattice* into an attractive and informative gateway to the other MSA publications and activities:

“... expanding *The Lattice* as a more attractive and informative gateway to AM, GMR, RiMG, and the website would be a nifty mechanism to reach the same goal. It could also address other problems at the same time. You are right in that it would be easier to change and continually change *The Lattice* to reflect the evolving scientific scene than to change the AM.

I think that the cost of expanding *The Lattice* into a magazine format would be much smaller than starting a new journal, and the difference could be better used to expand AM, GMR, etc. The difficulty I see is getting content for such a *Lattice* magazine. *The Lattice* Editor would have to be very committed to the rather difficult task



Visionary of *Elements Magazine*, Rod Ewing.



J. Alex Speer, former MSA Executive Director and key player in *Elements* development and operations since 2001.

of getting review articles or news on current advancements. I think opening up a *Lattice* magazine to other societies could help here, as well as providing some financial support that would otherwise go to a scattering of newsletters. If such a magazine were to attract sufficient advertising, then the costs may eventually decrease for MSA, and everyone else.”

J. A. Speer email to Rod Ewing, afternoon April 5, 2001

We eventually learned that Rod's inspiration for the expanded role of *The Lattice* was the Materials Research Society's *MRS Bulletin*, which provided a comprehensive overview of a specific materials theme in each issue, including original research articles, review articles, news and features, and updates on industry and policy developments, offering a broader range of society-related news than what was seen in AGU's *Eos*, AGI's *Geotimes*, or *Physics Today*. The technical articles in the *MRS Bulletin* appeared more scientifically engaging and useful as reviews than those usually found in geological publications.

In a follow-up May 23, 2001 letter, Rod asked how *The Lattice* could be upgraded or transformed into a mineral discipline magazine. On June 11, 2001, MSA Executive Director at the time, Alex Speer replied with a Business Plan for a potential new magazine, which was developed with the assistance of Myrna Byer, MSA's print advisor. Some sections of the outline required further discussion before they could be finalized. Addressing the “objectives and basic characteristics” of the publication would be necessary before defining the roles and responsibilities of other societies' members and finalizing production details. The outline aimed to provide a more systematic approach to planning that could be expanded or revised as new developments arose. Alex Speer informed Rod that a similar document would eventually be needed for the MSA Council and any other societies he might approach.

Rod replied on June 24, 2001, that the Business Plan provided him an excellent guide for preparing a proposal for the 2001 MSA Council Meeting that fall. In his September 30, 2001 MSA Publications Committee report to MSA Council, which utilized the Business Plan outline, Rod proposed that MSA—in close collaboration with other mineralogical and geochemical societies—consider launching a monthly, multi-society magazine. The goal of the magazine would be to introduce the mineralogical and geochemical fields to the broader scientific community and help shape the image of these disciplines as they evolve and intersect with other fields. Rod's report emphasized that much of the important work in our field often goes unnoticed by scientists in related areas like geosciences, environmental science, and materials science. He pointed out that our communication



Compilation of MSA's historic newsletter, *The Lattice*, which was published quarterly from 1985 until 2004.

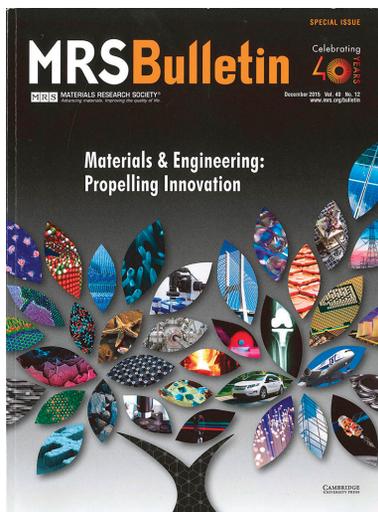


with the wider scientific community has been ineffective, with individual societies often fragmenting our efforts. The success of such a publication could potentially make the newsletters of the participating societies unnecessary.

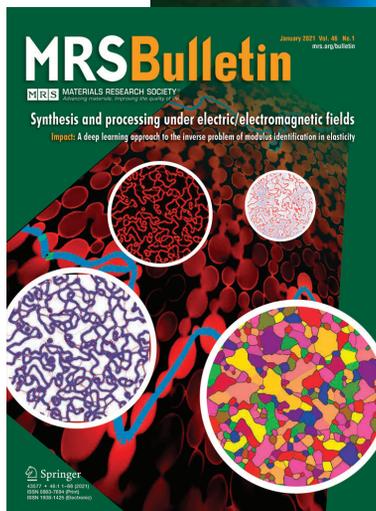
Rod did not present the idea as a formal proposal, but instead sought a “Sense of Council” to gauge support for developing a proposal with other societies. The “Sense of Council” was that creating a joint publication of general interest to the scientific community, involving multiple societies, should be pursued. Council recognized a key advantage of such a publication: it could help reunite many societies that had fragmented over time and fulfill the outreach roles of those organizations. The main concern raised was financing. Rod estimated that it would take at least one year to negotiate the project and another year to launch the publication.

By April 2002, Rod had developed a more formal proposal for a monthly magazine focusing on mineralogy and geochemistry. After it had been reviewed by the MSA Executive Committee and the Executive Director, it was sent to the presidents of the Mineralogical Association of Canada (MAC), the Clay Minerals Society (CMS), and the Geochemical Society (GS). Rod was scheduled to meet with the governing board of the GS at the Goldschmidt Conference in Davos in August 2002. If he received interest from several societies, a steering committee would be formed to create a detailed proposal for consideration by each society.

On April 18, 2002, Sharon Mosher contacted Alex Speer to see if the MSA would be interested in joining as a founding member a proposed geoscience electronic journal aggregate. This offer was extended to MSA at the suggestion of Anthony J. Naldrett, then President of the Geological Society of America. This initiative was being developed in collaboration with the American Association of Petroleum Geologists (AAPG), the Geological Society of America (GSA), and The Society of Exploration Geophysicists (SEG). The plan was to recruit five to seven founding societies that would help formulate how the aggregate would be organized, financed, policies formulated, etc. then invite all publishing geological societies to participate. On April 21, 2002, Rod Ewing agreed that MSA could respond positively about joining this initiative, although final approval would be required at the next Council meeting.



Compilation of the *MRS Bulletin*, which served as a model inspiration for Rod Ewing to develop what would ultimately become the popular geoscience society magazine, *Elements*. The *MRS Bulletin* has been published monthly by the Materials Research Society and Springer Nature since 1974.



The concept of launching a magazine focusing on mineral science and geochemistry was first announced to members in the May 2002 issue of *The Lattice*, Volume 18, Number 2, in Rod’s “Letter from the President.” The relevant excerpt from the letter reads:

“As discussed in my previous column in *The Lattice*, a topic of continuing concern is the rather low profile of mineral sciences within the broader communities of earth science, materials science and the environmental sciences. Declining enrollments in mineralogy programs, nearly static numbers of members in mineralogical societies, and indeed, our lack of visibility at national and international meetings are all symptomatic of our failure, as a community, to visibly contribute to the important scientific and technical issues of our time. As a partial response to this problem, I have proposed to Council that we create a monthly magazine, highlighting topics in mineral science and geochemistry. I envision a magazine that is a mixture of the features of a number of other monthly magazines, such as *Geotimes*, *GSA Today*, *Science* and the *Bulletin of the American Ceramic Society* – but something closer to the *Materials Research Society Bulletin*.

*Before dismissing this idea as too grand, read on.* First, the proposal would rely on the cooperation of a number of mineralogical and geochemical societies. Although each society or interest group has their own archival journals for their disciplinary specialty, as a larger community we have no unifying publication. Not only do we not have a means of communicating among ourselves, we have no medium for presenting our work to the larger scientific audience outside of the mineralogical and geochemical communities. Concerning the required resources, consider that many societies, including the MSA, are investing

heavily in newsletters that are increasingly sophisticated and interesting—but *go only to their members*. A collective effort could produce a very attractive and informative monthly publication under the aegis of all of the participating societies. The content of such a magazine would include material that is now typical of our present newsletters (e.g., society news, short course announcements, calendars of events and advertisements), but it would also include profiles of members, book reviews, and most importantly, short review articles written for a technical audience. As an example, the *MRS Bulletin* features thematic issues (e.g., nanocomposites, biomaterials, polymers, etc.) with three to five invited summaries of topics relevant to each theme (examples can be seen at the Materials Research Society website: <http://www.mrs.org/>). These thematic issues are

immensely valuable in broadening one’s research perspective and presenting new developments in the field. I expect that many would also use these thematic issues as a source for lecture material.

The first steps have been taken. A draft proposal has been presented to the Mineralogical Association of Canada, the Clay Minerals Society and the Geochemical Society. If these societies find value in this proposal, a steering committee with representatives from each society will develop a detailed proposal and business plan.

Other societies will be invited to join in this effort. Each society will have an opportunity to review and approve the proposal, and if the response is positive, we will begin. Please call this effort to the attention of your colleagues in other societies and invite them to contact me if they want to participate. This will only succeed if it is broadly based and inclusive.”

At MSA Council’s Spring meeting on May 29, 2002, Rod presented an updated proposal that included financial plans and theoretical budgets. This proposal was intended to stimulate discussion among the societies to which it was distributed—namely, the GS, MAC, and CMS. Rod reported that, while these societies were still deliberating the idea, the initial informal feedback had been very supportive.

At the same meeting, the MSA Council unanimously approved participation in the e-journal aggregate initiative and appointed Alex Speer as MSA’s representative to its steering committee. The committee was responsible for developing a business plan to present to other Earth science societies. By this time, the steering committee had selected the name “GeoscienceWorld.”

At the MSA Council’s Fall meeting on October 26, 2002, Rod reported that at the Goldschmidt Conference in Davos, he had presented the proposal to the European Association of Geochemists (EAG), the International Mineralogical Association (IMA), the Mineralogical Association of Great Britain and Ireland (MSGBI), and the German Mineralogical Association (DMG). The societies expressed enthusiasm for the proposal but raised concerns about the cost for participating societies and its potential impact on society publications, particularly their newsletters.

All interested societies each appointed members to a Steering Committee. The Steering Committee for the “New Magazine of Mineralogy & Geochemistry” came together during January 2003. The societies represented:

- The Clay Minerals Society - Kathryn Nagy
- Deutsche Mineralogische Gesellschaft - Walter Maresch, Juergen Glinnemann
- European Association for Geochemistry - Eric Oelkers, Janne Blichert-Toft
- Geochemical Society - Mike Hochella, Johnson Haas
- International Mineralogical Association - Ian Parsons
- European Mineralogical Union - David Vaughan
- Mineralogical Association of Canada - Norman Halden, Frank Hawthorne, Pierrette Tremblay
- Mineralogical Society of America - Rod Ewing, Nancy Ross, Alex Speer
- Mineralogical Society of Great Britain and Ireland - Kevin Murphy, Peter Treloar
- United States Geological Survey - Robert Finkelman

By the end of January 2003, Rod had initiated discussions within the Steering Committee on four key “points”: title, editorial structure, content, and finances. At its April 2003 Spring meeting, Rod updated the MSA Council on the Steering Committee’s progress. Given the broad interest in the project, Rod now presented the initiative as a collaborative effort by the participating societies to shape the image and activities within the mineralogical and geochemical disciplines, while also engaging with the broader geoscience, materials science, and chemistry communities.

The Steering Committee’s discussions concentrated on the magazine’s content, particularly the concept of thematic issues. A single issue would focus on a major, current topic of broad interest, such as nanomaterials in the environment, biomineralogy, or toxic metals. Guest editors would organize each thematic issue, inviting articles that are concise and geared towards a broad scientific audience. The articles needed to be educational, interdisciplinary, and suitable for use in mineralogy or geochemistry courses. Each thematic issue would include an overview of the field and introduce prominent contributors through photographs and brief biographies.

Other proposed content list for the magazine included the usual features: conference reports, policy news, book reviews, media watch, member profiles or interviews, society news and announcements, short course announcements and registration information, student activities

and awards, award and medal honoree announcements and profiles, historical articles, calendar of meetings and events, advertisements, funding agency announcements, and job advertisements. Rod acknowledged that while this list was neither surprising nor innovative, a key concern was how each participating society could maintain its identity, particularly if the magazine were to replace existing newsletters.

The consensus was that the magazine’s content should go beyond merely combining information from existing society newsletters. While individual societies would need to maintain their own direct member communications, the magazine would clearly identify participating societies (e.g., using society logos on the title page) and provide information and contacts for each society.

The editorial structure of the publication was designed to include two editors (later expanded to three) responsible for magazine content, ensuring a broad representation of disciplines and major geographical regions of the participating societies (Asia, Europe, and North America). A managing editor would oversee the overall management of content and production, potentially supported by a technical editor. An editorial board would consist of two representatives from each participating society, with corresponding editors from each society providing news. Finally, guest editors would be responsible for the actual thematic content of each issue.

A title for the publication was still elusive. Rod wanted to avoid disciplinary “traps” by excluding terms like “mineral,” “mineralogy,” or “geochemistry.” Suggestions at the time included “Triple Point: A Journal Dedicated to the Interactions of the Hydrosphere, Atmosphere, and Solid Earth”, “International Magazine of Mineralogy and Geochemistry”, “Elements”, “Mineralogy & Geochemistry in the Earth Sciences”, “Earth Materials,” and “Earth Materials and Processes.”

Rod concluded his report to MSA Council by saying that the next phase of the discussion would focus on:

- What will the magazine cost?
- How will the cost be recovered?
- How do we get the magazine into the hands of the society members?

Rod’s goal was to develop a finalized proposal by the end of summer for submission to the governing bodies of each participating society for review and approval. Rod emphasized the need for detailed cost estimates and suggested using the experiences of societies with existing newsletters.

**“A collective effort could produce a very attractive and informative monthly publication under the aegis of all of the participating societies.”**

— Rod Ewing, May 2002, in his “Letter from the President” published in MSA’s newsletter, *The Lattice*

From March to August 2003, Alex Speer (MSA), Pierrette Tremblay (MAC), and Kevin Murphy (MSGBI) were tasked with addressing two financial questions. The initial publication parameters called for 6 issues per year, with plans to increase to 12 issues annually. Each issue was to consist of 50 pages, including 24 pages of thematic articles, 5 to 10 pages of advertising, and 15 to 20 pages of other articles and announcements. It was estimated that there would be 4,000 initial subscriptions as a member benefit for MSA (2,074 members), GS (1,400 members), CMS (792 members), and MAC (700 members). Eventually, subscriptions were expected to grow to 10,000. Staffing for the publication was to include a Managing Editor, Layout Editor, and Administrative Assistant, with an estimated annual cost of \$110,000, including benefits. Subscription income was projected at \$20 per member, totaling \$80,000 annually. *The Lattice* was the only newsletter that featured paid ads, and from this advertising revenue, an anticipated income of \$30,000 per year was projected.

By August 25, 2003, Speer, Tremblay, and Murphy had completed their analysis of the estimated costs for printing and mailing the magazine in the U.S., Canada, and Great Britain. Due to the complexity and fluctuating exchange rates, costs were reported in their respective currencies, with only the final figures converted to US dollars. Their key finding was that the cost to produce and distribute 4–6 issues was comparable to the total expenditures the societies were already incurring for their newsletters. This suggested that there were enough resources to begin publishing, with the goal of increasing the number of issues supported by advertising revenue.

Printing costs in Great Britain were higher than in the U.S. and Canada, leaving only the latter two options for production. Printing in Canada was approximately 25% cheaper than in the U.S. Mailing the magazine involved several costs, including the mailer's fee to print labels, insert the magazine into a wrapper, the cost of the wrapper itself, and delivery to the post office. Canadian mailing was more expensive and Canadian mailers typically prepared materials to meet U.S. postal service standards and transported them to a U.S. post office to take advantage of lower U.S. postal rates. Postage rates varied significantly depending on the service used.

Printing the magazine in smaller quantities in different countries was unlikely to result in cost savings. Additionally, distributing the magazine through the societies to forward to their members was not expected to reduce costs and could potentially delay delivery, undermining the magazine's goal of providing timely news. For the most cost-effective printing and mailing options, the initial production cost of the magazine was estimated at US\$8,553 per issue for a print run of 4,000 copies, totaling US\$51,318 for six issues. This estimate was based on a 48-page, full-color magazine, professionally typeset, and delivered within 7–10 days. The printing costs covered the entire process, from the final electronic layout submission to the delivery of bound copies for mailing. Alex Speer estimated mailing costs for one issue based on *The American Mineralogist's* mailing practices, which included a 4-oz mailing of the magazine, a mailing sheet, a plastic envelope, and an equal distribution between U.S. and non-U.S. addresses. He also factored in additional costs for international surface airlift, which would expedite delivery (7–14 days compared with 1–3 months).

Potential income sources that had not been included in the previous financial plans were library subscriptions, with an example of 100 subscriptions at \$100 each, generating \$10,000. Other income sources included the inclusion of the magazine in the GeoscienceWorld aggregate and advertising, which could be attractive given the magazine's distribution of 4,000 copies. Adding more societies to the project could also help reduce the per-unit production cost. *To be continued...*

## PREVIOUS REFLECTIONS ON ELEMENTS ORIGINS AND HISTORY



## ELEMENTS 20th ANNIVERSARY HERITAGE SERIES

The *Elements* Heritage Series is pleased to narrate the magazine's origins and history in each issue of 2025 in celebration of *Elements'* 20th anniversary. **Stay tuned for the follow-up article** by former MSA Executive Director, J. Alex Speer, entitled "Origins of *Elements* Magazine – Part II: Planning (November 2003–December 2004)" in *Elements'* August 2025 issue—and join us in celebrating the geoscientific and educational bounty of these early labors.