

1. *Assignment*
 - a. Continue consideration of Tarski 1955.
 - b. Continue formulating questions about the social organization of mathematics. Why should professionals belong to societies?
 - c. Consider possible topics for an in-class outline of an expository paper.
2. *In-class outline*
 - a. A successful activity of the two previous offerings of this course was construction in class of an outline for a hypothetical expository paper. In each case, the class chose a topic, then we brainstormed in class, with me as recorder and outliner. We chose a topic for which the students shared a common background. Where a real expository paper would go beyond that background I provided some information from mine, and we worked it into the outline.
 - b. Imitating that practice requires choosing a topic of reasonably major interest, for which the class shares a common background, which I can extend without having to study too much.
 - c. The previous topics were
 - i. the fundamental theorem of calculus, and
 - ii. the fundamental theorem of algebra.
 - d. I quipped that we might be running out of fundamental theorems. The following suggestions were bandied about briefly.
 - i. The fundamental theorem of arithmetic. The problem: extending it beyond common knowledge enough to make it interesting would require some ideal theory that I haven't studied for about 40 years.
 - ii. The fundamental theorem of linear algebra. I don't think that's a definite term, but "dimension considerations in linear algebra" is. I certainly know enough about that, because it was involved, for infinite dimensions, in my PhD research, and even touches Math. 800 a bit. The only problem I see there is that it's rather close to one student's already chosen topic. We might have to jockey a bit not to be writing the first part of his paper.
 - e. You all should think about this and maybe we can brainstorm a selection at the next meeting.
3. *Social Organization of Mathematics*
 - a. We continued discussion of the American societies: CBMS, AMS, MAA, AMATYC, NCTM, and more specialized societies such as SIAM, ACM, ASL, and ASA. Some of those are in fact international.
 - b. I forgot to mention that there are also organizations fostering the needs of particular groups of people as opposed to subjects or professions: for example, the Association for Women in Mathematics (AWM; I used to belong), and the National Association of Mathematicians, which is dedicated to underrepresented minorities.

- c. What happened in San Diego this January at the Joint Meetings of the AMS, MAA, and ASL?
 - i. Plenary one-hour talks on research of major common interest.
 - (1) I attended a good one on the history of algebra by Karen Parshall of the University of Virginia.
 - (2) I attended a much less distinguished one on the problems of reapportionment in a body such as the U. S. House of Representatives, which is reconstituted with fixed size every decade according to the changing ratios of population among the states. There was a bad problem with unreadable displays.
 - (3) The speaker I most wanted to hear, John Conway, slated to speak on crystallography, didn't show up.
 - ii. Specialized half-hour talks on research of limited interest.
 - (1) I went to one, on the application of logic to the study of randomness, only a little outside my area, but failed to understand a thing.
 - (2) But the history talks, my passion now, proved of uniform unexpectedly high quality. I attended at least a dozen.
 - iii. Half-hour talks on teaching techniques.
 - (1) I attended one by my coauthor Elena Marchisotto on her Internet-based capstone course at CSU Northridge for future elementary teachers. While I don't think much about such things anymore, this proved more interesting and substantial than I had expected. Glad I went.
 - iv. Book sales, etc.
 - (1) The major publishers display their latest wares and sell at a discount. I spent a small fortune.
 - (2) I talked with a techie at the *MathType* booth and determined that they couldn't fix a bug in their interface to *WordPerfect*.
 - (3) I agreed to provide some data on Italians to the Math Genealogy website management, who had a booth.
 - (4) I spoke with some agents of Elena's and my publisher, Birkhäuser, about our plans.
 - v. The Meat Market
 - (1) Thank heavens I no longer need to deal with this. This is the in-person aspect of the mechanism the AMS has developed to facilitate job seekers' and prospective employers' contacts. It's inhumane—fifteen-minute interviews in a public hall—but that's one way many departments pare down their long lists of applicants. Or, as I experienced several times in ACM meetings as a chair seeking computer-science faculty, how many applicants pare down their long lists of courting employers.
 - (2) SFSU hasn't used that AMS service recently, but senior faculty have occasionally held longer conversations with prospective hires in less formal settings.

- vi. I missed meetings devoted to awards to outstanding researchers, teachers, and managers, and to considerations of national science policy.
- d. I circulated examples of all the journals published by the MAA: *American Mathematical Monthly*, *Mathematics Magazine*, *College Mathematics Journal*, *Math Horizons* and *Focus*. The first four are expository journals, with a decreasing level of sophistication; the last, a news organ. *Math Horizons* is aimed at undergraduate students.
- e. I sketched the process of refereeing articles for research and expository journals.
- f. You should visit the websites of some of these societies. They are a major source of information that even I am not utilizing as well as I could.
- g. Various countries have counterparts of the American societies. Their activities are quite parallel.
 - i. For the UK and Russia, perhaps I should say various major cities.
 - ii. For example, I belong to the *Deutsche Mathematiker-Vereinigung (DMV)*, because my work in geometry has been almost entirely in a German context. They, the AMS, many other national societies, give major discounts to permit multiple memberships.
- h. There are international bodies, too:
 - i. The *European Mathematical Society* hosts international meetings. I went to one in 2000 in Barcelona. Their website is in English.
 - ii. The *International Mathematical Union* hosts a worldwide meeting every four years, and awards the Fields medals, our equivalent of the Nobel prize. Their website is in English.