

DMRCP Fellow introduction: Michael J. Barany

Social, cultural, material, conceptual, and institutional studies of modern mathematics

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Outline

- What people who have heard of my work have heard about
- What I've done recently
- What I'm doing now



Better-known interventions

- Social studies of contemporary mathematical collaboration
 - Early infrastructural analysis of Polymath ‘blog maths’ project
 - Ethnographic study of **blackboards**, seminars, and scrap paper in Analysis research: writing-up/reading-down, situated media
- Counting is racist
 - Prehistory and the ‘1, 2, many’ trope
- Fields Medal killjoy
 - Smale Affair as origin of “Nobel Prize of Mathematics” trope
 - First direct evidence of early committees’ views of purpose/criteria
 - Olga Ladyzhenskaya on 1958 shortlist

Better-known interventions

PhD project: Theory of Distributions and the 1950 International Congress of Mathematicians

- Political economy of mathematical institutions
 - ‘Math isn’t everywhere’
- Fellowships and funding in mid-century mathematics
 - Especially Rockefeller Foundation
- International and transnational mathematics
 - Especially Bourbaki and associated figures
 - ‘Truly international’



Mathematical Centers of Europe,
International Education Board, 1926:
Rockefeller Archive Center

Recent work

- Information infrastructures of modern mathematics
 - ‘Abstract relations’ and ‘sociable structuralism’
- Algorithmic thinking, indeterminacy, and repair
- Historiography of mathematical practice
 - Time and contemporaneity
 - Erasure and reconstruction
 - Organizational practice and language



Title image from Recorde, 1543,
Ground of Artes

Current projects



- Situating International and Global MATHematics (SIGMA)
 - Can we tell a six-continent history of 20th century mathematics?
 - How would it change how we think about mathematics, who does it, how, where, and why?
 - *Global mathematics* as ‘recent, contingent, and precarious’
- Responsible Mathematics
 - How do public understanding and public responsibility relate for maths?
 - Can historical and social understanding help make better (more responsible) mathematicians?
 - ‘stakeholders and impacts’ → ‘responsible professional communities’