

# Biographies

December 10, 2019

## Overview

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- 6 Questions

- How did your collaborations start?
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Breslau → Leipzig → (Freiburg + Berlin) → voluntary military service → 2 years work at observatory → Habilitation → Bonn → Greifswald → Bonn → "Enderich - ist vielleicht das Ende nicht"

- "Viel Zeit soll Hausdorff, der **vorwiegend nachts arbeitete**, am Abend seinem geliebten **Klavierspiel** geschenkt haben"  
Work at night and play music.
- "Mir kam es **mehr** auf die Konsequenz und Klarheit der Begriffe, **als auf absolute Neuheit** der Resultate an"  
(absolute novelty not required)
- financially indep. (parents **rich**)
- Pseudonym: **Paul Mongre**.  
**Search contacts** to Max Klinger (sculptor), Frank Wedekind (writer), Max Reger (composer).  
published more than 20 literary works, **theatre pieces** etc.



In Mathematics/Physics:

Optics, Non-euclidean Geometry, hypercomplex numbers ...

Set Theory, Measure theory, Metric Theory, Probability Theory as Measure Theory (10 years before Kolmogorov), etc

Ernst Zermelo, Eduard Study, Otto Toeplitz

In other creative branches:

Hausdorff liked to write **aphorisms and Nietzsche** was a reference point, both in thinking and writing:

Paul Mongre – "Sant Ilario. Gedanken aus der Landschaft Zarathustras"

Paul Mongre – "Das Chaos in kosmischer Auslese" (epistemology 1898)

Paul Mongre – "Der Arzt seiner Ehre" (theatre piece 1904)

1938 Kristallnacht (November Pogroms)

Felix tried to ask Richard (Courant) for a research fellowship. But not successful.

About to be sent to Bonn-Endenich and then concentration camp.

**Letter by Felix** to his attorney Hans Wollstein:

Lieber Freund Wollstein!

Wenn Sie diese Zeilen erhalten, haben wir Drei das Problem auf andere Weise gelöst auf die Weise, von der Sie uns beständig abzubringen versucht haben. Das Gefühl der Geborgenheit, das Sie uns vorausgesagt haben, wenn wir erst einmal die Schwierigkeiten des Umzugs überwunden hätten, will sich durchaus nicht einstellen, im Gegenteil:

auch Endenich ist noch vielleicht das Ende nicht!

Was in den letzten Monaten gegen die Juden geschehen ist, erweckt begründete Angst, dass man uns einen für uns erträglichen Zustand nicht mehr erleben lassen wird.



Budapest (1913 - 34) → Manchester → Princeton, Perdue, Notre Dame, John Hopkins (not accepting full-time employment). → re-entry visa to US not granted (spy?) → Communist Hungary allowed re-entry → Hungary, Israel, Australia, UK, US, etc

- grant money goes directly to **award money** for solving a problem
- mathematics is a **social enterprise**.
- speaker didn't show up ;) and Erdős jumped in to talk about color vision of bees
- problem solver and **problem poser**
- travel from colleague to colleague.
- Erdos was the most **loyal of friends**. His friendship extended not only to his professional colleagues, but usually also to their families

During the 1940s he wandered around the United States from one university to the next: Purdue, Stanford, Notre Dame, Johns Hopkins, spurning full-time job offers so that he would have the **freedom** to work with anyone at any time on any problem of his choice.

With **no home, no wife, and no job** to tie him down, his **wanderlust** took him to Israel, China, Australia, and 22 other countries (although sometimes he was turned away at the border).

Erdős would show up often unannounced on the doorstep of a fellow mathematician, declare **My brain is open!** and stay as long as his colleague served up interesting mathematical challenges.

Children = epsilons

Israel = isreal

Soviet Union = Joedom

God = Supreme Fascist (who was always tormenting Erdős by hiding his glasses, stealing his Hungarian passport, or, worse yet, keeping to Himself the elegant solutions to all sorts of intriguing mathematical problems.)

Himself = Paul Erdős P.G.O.M (poor great old man)

## Questions:

- Is a nomadic existence possible?
- How can one deal with existential uncertainty?
- How can one deal with discrimination (against joblessness and aimlessness)
- Are only renowned and eminent figures like Erdős able to live a nomadic life as a scientist?

Also mentioned in [this article](#) in Ukraine.

**Self-Experiment:** Let's see what the obstacles are.

Some Projects:

- 1 Quit the postdoc position at Complexity Science Hub Vienna.
- 2 Power Transitions in Byzantine Empire
- 3 Dimensional Reduction and Random Dynamical Systems
- 4 Motif Densities for Null-Tests
- 5 Vienna Sock Exchange
- 6 Hypergraph dynamics
- 7 Moduli spaces of parameterized (statistical or any other kind of) models
- 8 Podcast about a cross-section of arxiv-publishing authors with Berna.
- 9 Make all my clothes by myself
- 10 Dance Project
- 11 Film Project
- 12 Collective Mathematics Project
- 13 ...

# Learnings from This Experiment

I want to present some learnings from the experiment.

And I want to illustrate these learnings by examples.

- How much definition does a project need?
- How flexible should one be to change projects?
- How easy is it to contact people?
- How important is reputation?
- How willing are people to talk to you?
- How about financials?
- How about other social stresses?
- Base or no base?
- Where to live?



# Contacting Researchers

My experience with contacting researchers is positive. They are eager to speak. Usually have no time. The word grant application appears very soon into the discussion.

## Examples

- Power Transitions in Byzantine Empire: contacted Johannes Preiser-Kapeller, National Academy of Sciences in Austria, nice person. Gave me two data sets of ancient china and byzantium and discussed for some hours. Offered to put me into grant. I declined.
- Mark Strembeck, Wirtschaftsuniversität Wien, I declared that I believe upper and lower bounds for motif densities for a given out and in-degree sequence could be found analytically. Grant application suggestions followed quickly. Collaboration dormant.
- Krzysztof Kulakowski (Krakow) - Skype Discussion about power transitions and graph theory (very open to discussion). Collaboration dormant.
- Volodymyr Koshmanenko (Kiev) - visited in person. Works on mathematical models of conflicts. Two days of discussion. Great! Soviet Style... discuss until solved. Not US Style (from 12 till 13, then lunch).

# Contacting Researchers

## Examples:

- Yurij Holovatch. Professor of Condensed Matter Physics in Lviv (Ukraine). Contacted in Winter in person. He invited me to give a guest lecture at the Ising Lecture Workshop Series. Gives **human warmth** to his research colleagues. Hiking.. **making music... making fire...** hugging everyone also PhD students and their children... provided me an **office space for 2 months in Lviv.**
- Teona Mataradze. Professor at the Tbilisi State University (Migration Research for Caucasus). Skype discussion whilst in Tbilisi. Felt **asymmetric** at first. **She wanted to bring me into an applicant position.** But I told her, that I can offer collaborations. mathematical modeling and data analysis.

# Sock Exchange

March 2019 — Single-Börse für Socken



# What to take home?

- I contacted various cultural institutions and none allowed to install the sock exchange in the public space.
- Museumsquartier (nope)
- WUK (nope)
- Innenhöfe UniWien (nope)
- Magistrat M46 (nope)
- have to resort to guerilla methods.
- installed it in an abandoned corner. Was used for 2 weeks and then taken down.

# All Year Clothes Project

Another Project where I have zero connections and very little previous knowledge: Make my own clothes for next year.

I would consider it  
a **research project about my own processes.** (c.f. last session).

"I want to create all my clothes for 2020 until the end of the year 2019. But why? And where is the starting point? My starting point is close to zero: I have no plan, no time allocation, no materials, not many contacts in the sewing world and almost no sewing resources so far. This is not supposed to be a cooking show, where miraculously everything is prepared already. It is instead supposed to be a documented self-experiment. Starting from zero, I wonder how the project evolves and morphs into something and I wonder how I and things around me co-morph with it. "

Website of <http://allyearclothesproject.de> on github server.



What can be the sources of self-sustainment? Clearly not everyone is Erdos and even Erdos barely survived in the beginning.

- Austrian State (benefits) - not sustainable and conditional to not leaving the country. I was on this from March till July.
- Start-up money - conditional on opening a business. I was on this from August and will be till March.
- Tuition - in London one may earn quite a lot from private tuition. I used to earn 40 GBP per hour a few years ago. But often bound to a particular location.
- Foreign language - Teaching German or English somewhere. I taught some German in Lviv (Ukraine) at Dadad. (negotiated price once per week)
- Working seasonal, say half a year. ( I have no experience with this).
- Collective sustainment through mathematics

## The **collective principle plus mathematical consulting**

Contracts for mathematical modeling/consultation/data analysis/ etc are acquired, **distributed** and worked on together. Revenues are redistributed again.

Key areas: Energy market, energy distribution, carbon taxation, waste market, but also research institutions.

The idea is to build a basic infrastructure for this. Online presence, client acquisition, collective, transparency everywhere.

This could also allow researchers to be free (in a different way) and unbounded by academic institution.

Website on <http://www.collective-denominator.org/>. Https certificate still required.

People who showed interest: Christoph Straeter, Bruno Pace, Ruggiero LoSardo.



# Where next?

- What are the (dis-)advantages of a nomadic way of science?
- What are nomadic modes of science?
- Is science already nomadic?
- How free is science?
- What are the support methods.
- Can we be Erdoses/ Can we be Hausdorffs?
- Should we find our ways? Should we not bother?
- Should we find alternative ways?

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