

# RALPH IN VIENNA, 2005

August 21 to September 2

The International Institute for Applied Systems Analysis (IIASA), near Vienna, invited me to give a lecture in its series in honor of Tjallingis Koopmans on August 24, 2005. Linda and Raoul Kneucker, old friends in Vienna, invited me to stay with them. In addition to the lecture at IIASA, a presentation had been arranged at the Rudolph Steiner Schule Wien-Maurer on August 30. This newsletter is a souvenir of my visit to Vienna.

## About IIASA

IIASA is an important institution for the application of complex dynamics to social problems, the environment, AIDS, etc. It was the model for the Santa Fe Institute. It is in Laxenburg, about 30 miles south of Vienna in the Vienna Woods. It is housed in the summer palace complex built by Emperor Franz I ca 1800. I had given a lecture here 16 years ago and vaguely remembered it.

## The Kneuckers

Linda and Raoul Kneucker were my hosts in Vienna. I had met them there about 10 years ago. Linda works at IIASA doing websites, data bases, etc. Raoul, in his role as director general for science and technology in the Austrian Ministry of Education, has been involved in the funding of IIASA for many years. Both of them played some role, no doubt, in my invitation to speak in the prestigious Koopmans Series at IIASA.

Here are some highlights, day by day.

Saturday, August 20

I left home at 5 am, and was surprised at San Jose airport to find that the ticket provided by IIASA was first class! The flights were splendid, and much less tiring than the usual tourist class. I changed at Washington Dulles, and then found Austrian Airlines business class even better than United's first class.

Sunday, August 21

I was met at Vienna Airport 9 am (midnight in California) by Raoul and Linda. After a short nap I had my first excursion around Vienna with them ... beautiful in unexpected sunshine ... ring road, architecture of every period, huge parks ... to the Belvedere, the palace complex of King Eugene, of the time of Leibniz, with an exhibition in honor of the 40th anniversary of post-war Austria ... we were there to see a show of paintings by Klimpf ... early fractals similar to Kupka ... Vienna on a par with Paris ca 1900 ... caught napping by a major thunder storm with heavy down-pour.

Monday, August 22

Feeling better after 12 hours of sleep, more-or-less on European time now ... close inspection of an all-organic health food store with Linda, more variety than I have ever seen before ... tour #1 of the old city with Raoul, who knows the intimate details of every brick from the Roman legions up to today, and tells the story with philosophical depth while walking in chronological order ... the old city is so appealing I think I could live there with pleasure, maybe in part because there were so few people around ... the old synagogue is still guarded by police armed with ma-

chine guns although there has not been a bombing since my last visit ... dinner at a Japanese restaurant.

## Tuesday, August 23

Today, Linda and Raoul drove me to IIASA. I tried out my powerbook with their projector in the lecture hall for tomorrow. Everything seems ok, and they have blackboards and chalk. We had lunch with Leen Hordijk (IIASA director), his wife, and Paul Cruizen (atmospheric chemist, Nobel laureate, and official of IIASA). There was much talk of the future directions of IIASA, such as world water resources, and the political problems obstructing all new programs for IIASA. It is sponsored by 18 nations so it is difficult to do anything. Paul said James Lovelock was a great scientist but his Gaia Theory was wrong. After lunch I met with Brian Arthur, pioneer economist of the Santa Fe Institute. We made a date for tomorrow. Then Linda and Raoul drove me to Baden, a Roman spa with hot sulfur springs like Esalen. We walked on the path where Beethoven wrote the Ninth Symphony, with views of the Vienna Woods, and then home. The surroundings of Vienna are as beautiful as the old city.

## Wednesday, August 24

I setup my powerbook in the lecture hall, an excellent room with 80 seats. Considering the 70 graduate students and 80 full-time scientists of IIASA plus 15 people of the general public in Vienna who had registered, this seemed hardly enough. But later I was told that the preceding lectures of this series normally drew only a half dozen people. Meanwhile people filtered in, and at lecture time the room was almost full.

I guessed that most people in the audience were either nonspecialists or graduate

students, so I decided to expand the historical introduction into most of the one-hour lecture, and do a fast forward through my powerpoint slides and Netlogo demo at the very end, which I did.

There were some very useful questions and comments at the end from the experts, eg, Brian Arthur corrected my history of agent based modeling, which he had pioneered, and Ulf Dieckmann noted that I had forgotten to place adaptive dynamics in the chronology, which was uncool as IIASA is the world center of adaptive dynamics, and it is one of the five primary programs here, which he directs. Many people appreciated the elementary talk, but the director, Leen Hordijk, said that he would have liked more of the technical details of my recent work, and half a dozen other experts probably shared that feeling.

Then half an hour of reception, the usual "questions" from people who wanted me to know about their own work, and on to lunch with the director, assistant director, Brian Arthur, Jack Corliss, an old friend who had come from Budapest, Linda and Raoul, and a couple of the staff scientists.

After lunch, I met with Jack to plan the next phase of our joint research on morphogenesis (discontinued 15 years ago) -- we will try to further this project by video conferencing. Then I met with Brian Arthur, who amazed me with his stories of spiritual experience, Taoist studies in Hong Kong, and other interests very similar to my own -- he lives in Palo Alto and we will get together soon.

## Thursday, August 25

I spent the day talking with Jack about software and hardware issues regarding our project, which requires massive supercomputers and 3D animated computer graphics. In the evening Jack and I took Linda and

Raoul to dinner at a museum and then an outdoor classical concert and very memorable ice cream.

## Friday, August 26

Today Jack has returned to Budapest. Linda has taken me through the outdoor market, the largest and most beautiful I have seen. And Raoul has given me the second installment of his sequence of three walking tours through the old city. His encyclopedic knowledge of the history of Vienna -- religion, philosophy, music, arts, theater, opera, politics, etc -- is integrated like general systems theory. I realized that Vienna is high on the list of great historical cities like Kyoto and Florence -- what a treat it is to be here. The combination of wealth and taste required to create cities like these is rare -- presently there seems to be only the wealth.

My online course "Chaos and the Evolution of Consciousness" at CIIS has just begun, so I have to actually do a little work now.

## Saturday, August 27

Today was the third and final episode of Raoul's tour of the old city. We saw the Medieval jump to the Baroque without a Renaissance phase, due to the brief splitting of the Habsburg capital into three sites, Graz, Prague, and Innsbruck. Then we paid a visit to Freud's apartment, where I glimpsed the "couch" on which the master abused his patients. Lots of photos of course, and a bust, which quite reminded me of the late Terence McKenna. Freud belonged to my grandparents' generation, and his cigar paraphernalia and daily costume reminded me of my father. In fact the entire old city, so extensive and intact, provides time-travel to my European roots.

## Sunday, August 28

Today, at last, it is time for my Kepler pilgrimage to Graz. This is where, in 1594, Kepler was dislocated from his dream vocation -- Lutheran minister in Germany -- to his destiny -- school math teacher in the boondocks. It was here, in the summer of 1595, in an elementary astrology course at the Stiftschule, that he had the second of the three epiphanies that ruled his life, and channelled modern astronomy into being: the solar system model constructed from the five Platonic solids. My mission was to see the classroom in which this miracle occurred. A mission impossible, given that the schoolhouse no longer exists. However, Raoul was again my guide. He grew up in Graz, and knew exactly where to look. We succeeded in nosing around in the successor school building, and also found Kepler's apartment. We had lunch in the "Kepler Keller", and Linda took photos of all these places, for my Kepler website. (See the map.)

## Monday, August 29

My first day off since leaving home nine days ago. Linda and Raoul took me to dinner at a fabulous Chinese restaurant in Maurer, a suburb of Vienna, with their daughter Hannah and her partner, Andy.

## Tuesday, August 30

I had been invited back to IIASA by the Dynamic Systems Group to explore mutual interests. This group turned out to be just two Russian mathematicians from the Steklov Institute in Moscow, Arkadii and Alexi. They work at IIASA part-time, with short monthly visits, on optimal control theory. I guessed that they have limited relations with the

other groups at IIASA (forestry, fisheries, air pollution, etc) and proposed a collaboration in which my NSF sponsored work with Dan Friedman and Pablo Viotti at UCSC would try to bridge between their work and IIASA's more applied groups. This would give them a chance for increased support within IIASA. They seemed to like this proposal, and I have yet to see if it is possible.

Next on my agenda was the second presentation of my Vienna visit, a fireside chat with the parents and teachers of the Rudolph Steiner Schule Wien/Maurer. This is one of the earliest of the Waldorf schools, and includes an important teacher training program, led by Tobias Richter. It was a visit to this school a decade ago that brought me into contact with Linda and Raoul and their children. Sasha, the youngest child, was a senior at the school during this earlier visit.

I was to tell the parents and teachers about the program I had developed with Bill Thompson for the Ross School on Long Island. This went surprising well, as some of the basic concepts of the Ross curriculum are very similar to the original ideas of Rudolph Steiner 70 years ago, which I had never known. So here also, like the IIASA Dynamical Systems Group, there is a possibility for future collaboration.

## Wednesday, August 31

Today was devoted to a visit to Elizabeth Gergele, one of the founders of the Rudolph Steiner Schule Wien/Maurer, who had just celebrated her 85th birthday. Her country home is beautiful, peaceful, and almost monastic in the Steiner style. It was she who had organized my earlier visit to the Maurer school, and she was keen to hear about last night's chaos dialogue.

## Thursday, September 01

Linda and Raoul took me on a tour of the Hundertwasser buildings of Vienna. These are comic but comfortable buildings somewhat like Gaudi's apartment buildings in Barcelona, of which I have fond memories. Although I laughed at Hundertwasser today, I have a feeling they will stick in my memory for a long time. It is the contrast with staid and classical Vienna that gives them such power. And tomorrow: home-ward bound !!!



# Ralph and Raoul

At the Sphynx, Baden. August 21.

Photo by LinK.



## Ralph and Linda

Teatime at Lakakiko. August 22. Photo by Raoul.



## Lunch at IIASA

Raoul, Paul Cruizen, Ralph, Leen Hordijk and wife.  
August 23. Photo by LinK.



## Raoul and Ralph

Finishing a walk at Baden. August 23. Photo by LinK.



## Tjalling Koopmans Distinguished Lecture

IIASA, August 24. Photos by IIASA.



Brian Arthur and Jack Corliss during the Q&A session. Photo by IIASA. August 24.



Leen Hordijk moderating the Q&A session. Photo by IIASA. August 24.



## Asian Party

Raoul, Ralph, and Linda at IIASA. August 24. Photo by IIASA.



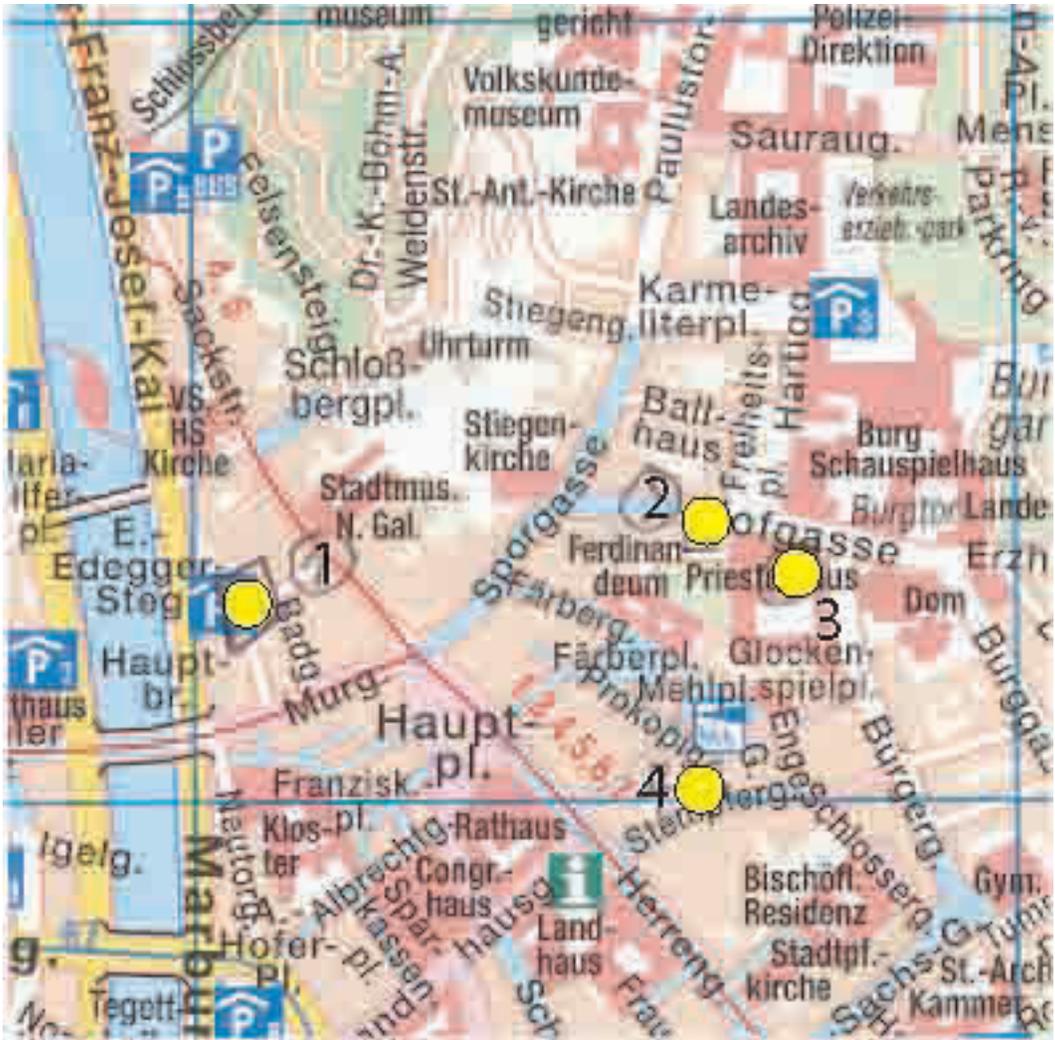
## Jack and Ralph

Jack Corliss came from Budapest for the lecture and to meet with me. Here we are on the terrace of Linda and Raoul's apartment. August 25. Photo by Link.



## At the Nashmarkt

Raoul and Ralph, vinegar, and exotic fruit.  
August 26. Photo by LinK.



## Graz Center

1. Stiftschule
  2. Gymnasium
  3. Old University
  4. Restaurant "Kepler Keller"
- See August 28.



## Stiftschule, Graz

Present location of the Stiftschule, number 1 on the map.

August 28. Photo by LinK.



## Kepler Gymnasium, Graz

This is the new location of the gymnasium where Kepler taught. Number 2 on the map. August 28. Photo by Link.

## Old University, Graz

Next page. Number 3 on the map. August 28. Photos by Link.





## Kepler Keller, Graz

Ralph and Linda in the Courtyard of Kepler's home. Number 4 on the map. August 28. Photos by Raoul and LinK.



## Kepler Keller

Ralph and Raoul in the Courtyard of Kepler's home. The Kepler apartment is on the second floor above the doorway (photo below). Number 4 on the map. August 28. Photos by LInK.





# Rudolph Steiner Schule

August 30. Photos by LinK.





## Elizabeth Gergele

At her summer house, Guntrams, near Vienna. August 31. Photo by Link.

