

Liverpool January 1st, 2014

Dear Barbara and dear Gary.

Many thanks for the Koopman/Bogue family summary and the extra letter a few days ago. The +-21 degree story reminded me on Dubna, near Moscow, when we had, back in 1978, +28 inside the flat (in Dubna there existed one average inside temperature of the village (!) - you could not regulate, just like now at our University btw, the radiators and either you were lucky or freezing..) and -42 outside, which made a prompt difference of 70 degrees when one dared to leave the house, for a short time.

Uta and I are now at home at Liverpool, it is grey, wet, 7+ (all in Celsius, not like the age of B's mom..) and we enjoy it. We went to sleep at 10pm, the midnight noise was waking us up, we had a wonderful breakfast with Champaign and we just heard a not only wonderful New Year Concert of the "Wiener Philharmoniker" under Barenboim, who probably thought a bit of Strauss was enough, although that concert, as BBC told us, is heard by 50 Million people, of which 2000 are in the Concert Hall. We realized that in 2013 we had seen, mostly together though this year a bit more by me, Lancaster, Glasgow, Dresden, Frascati near Rome, Marseille, Shanghai, Stockholm, Les Houches near Chamonix, Teupitz near Berlin, Hamburg, Mainz, Marrakesh, Aix Les Bains, often Geneva and not so very often Liverpool, then a few times Berlin, last over Christmas - why wonder that we like to not move and stay home these days. And yet we would have liked to be on a Safari.. In 2013 we have worked on ATLAS and the new accelerator project LHeC, we gave our courses, Uta had students to work with, PhD and master, we had lectures, seminars, we got our boat and built a new water bridge into the Teupitz lake, we bought 482m² of land, designed a house and are about to have it built, we enjoyed the time with our 5 growing children, our mothers and Uta's father, who is still doing ok in the hospice with downs but returning ups as well, an intense year is now gone indeed and a not much less intense one seems ahead.

In certain struggle for shaping and defending the LHeC project, a new accelerator upgrade to the LHC, we suddenly found an amazing support(er): when we were at Dresden and I received the Born Prize, there was a man I knew from long time ago, Herwig Schopper, who at Dresden became a honorary member of the German Physical Society, 89 years old. That was the moment were the LHeC looked like not going anywhere further. I congratulated Herwig to his honour during breakfast. We then, including Uta, had a 2h discussion about particle physics and our project also. In June, following a consultation with the CERN directorate, Herwig agreed to chair the new international advisory committee of the LHeC. Since then there comes extra intelligence, guidance and experience into the project from a man who was twice DG of CERN, made big projects happen and dealt with kings, the Pope and Maggy Thatcher. For our house, my uncle, Ludwig Deiters, former Chief Monument Conservator of the DDR, is giving us most competent advice. Ludwig is now 92, Herwig becomes 90 in February (you find both on Wikipedia). I am still trying to understand why the experience with them is so extraordinary. It is not just the valuable advice we receive, which comes of

course with the experience and style of 9 decades of culture. It is probably more the attitude of the still existing generation of my father, not to forget our mothers, which has a true interest in shaping something they are convinced of and interested in. Concerning future projects in our field, which have a lead time of 10-20 years, often we hear the throwaway remark 'by then I am already retired', which sounds daunting. Here one sees an attitude completely different, positive thoughts, humour, real competence which speaks by itself, and this makes everything looking better, more positive, more normal, more natural. We have passed a year, with the LHeC, of a so called 'European strategy' debate, which was nothing but the fight of more or less impressive individuals for resources, no wisdom, no tolerance. That is passed now, also since the memory of modern times shrinks it seems. So Herwig and Ludwig they are our heroes of 2013, whatever follows. One can engage, one can trust, one can collaborate, one can listen and be heard – not a bad experience, and the age limit is moved up by 30 years, perhaps. Ludwig, the brother of my mother, helped this year building the water bridge at Teupitz with his *hands*, and he now has a heart operation to come.

The political scene, I must say has led to a bit of disillusion, may be because the hopes were too high. It is of course better to have a president one likes to listen to, someone with a real personality, intellectually capable than the known, oil related opposite. When near Grand Park, 4th of November 2008, I think I told you, in a lift going down, a sad man expressed his concerns that BO would introduce socialism in the US, I tried to give him comfort by saying that the constraints of that office would not allow him doing that, even if he wanted to. Not sure I could help the man.. However, and as an East German one may be overly sensitive, and yet, the celebrated peace Nobel prize winner is politically responsible for spying out all and everything which moves or is said by essentially the world, not last the mobile of his partner Angela Merkel. The man who made this known is not welcome to his own land but quite the opposite although he served it especially well, in the view of many of us. At that point one feels probably those often hidden 'constraints' particularly strongly. But one also is irritated about ones intellectual capability if someone really believes he can control, to the best (?) of his own country, indeed the full world with a massive computer system and an army of software freaks who must, decoupled from human values, do nothing but invent techniques and algorithms to filter out what is of whatever interest. That not only is a-human and frightening, it is also useless. The DDR system tried with a massive engagement of personnel, they had no computers of any value, to collect information about what people thought and did. At the end they were caught in their own amount of information, lost indeed full control and eventually had contributed massively to the corrosion of the system and values they pretended to develop and defend. One cannot by secret control build and maintain a free society, however much that society might be questioned and sometimes indeed be endangered. It is not right to take billions of people, their lives hostage for detecting ten enemies who are most likely more clever than any mouse click based computer system anyhow. It is not sustainable either to use such a system for economic or technology purposes. The disappearance of the DDR, not comparable with the present situation, yet could have told something, for example as to how many friends a state can make by controlling everyone. A

public support is of MUCH higher value than a 5k Exabyte system at Utah with unmanageable information about that public (all of ATLAS has produced 0.2 Exabyte of data with what we would call a huge, distributed computer system). So BO has something to correct here but it is a moloch, a ghost out of the bottle one needs to catch. Part of the disappointment is the silence about this, by the way including Angela Merkel who must know everything I wrote here from her own life. One of course must not have lived in DDR to see how our lives, its roots and future are attacked, Orwell was enough of a warning.

Still, this is on a good New Year not about a grave mistake of the previous one. Coming back to age. In November Higgs and Englert received the Nobel for the prediction, 50 years ago, of what our and the CMS experiment had discovered in July 2012. The moral is you should do something great, whenever is the right moment, but then you better try to live long. Englert had published his paper with Brout, but Brout died a few years ago. There are fortunately also other good reasons to live long, and that prize is not without questions. It focuses all to a few superbrains, a 1-3 heros, an achievement which, perhaps with exceptions, yet is the result of a development of a field, in which what is celebrated often is only one step out of many, impossible without previous work and then followed by new insight. We heard Peter Higgs at the Conference of the European Society in Stockholm in July 13. He explained, with Francois Englert in front, what he had done. All felt it was just right, not underselling and neither overstating his contributions. He is a very humble, normal man. Now he is instrumented in a Higgs hype. This is of course also positive, how many more people now know about this. The downside is that our directors have no time anymore as they are constantly engaged in VIP visits. Yet, a new particle was discovered, it had been predicted to exist, I thought with many others it would not, it has properties partially unusual which will require 2-3 decades of further research with even larger accelerators than the LHC constitutes, in fact we have a "kick off" meeting in February 14 for a study of a 100km ring accelerator complex under Geneva, and I have been asked to coordinate a part of this.

2014 is also a 100 years away from Sarajevo, the trigger of WW-I. That was the subject of my fathers life as a historian, and he would have become 90 in July 14, may be that is why Herwig is near to us in the way he is. Europe struggles. In our field Asia moves on with plans for big new machines in Japan and another one not far from Beijing. The collaborative, federal structure of the governance of the old continent is a huge achievement, especially when viewed against 1914, and what followed for decades. However, it poses questions. It would need a common, one joint government to act efficiently but that governance would naturally run into conflict with national needs and traditions. Europe enjoys one currency but individual states lost the opportunity to adjust their monetary system to as we know strong variations, which the UK maintained. In fact the pound lost 20% of its value, actually since we arrived as we sometimes say .. The future is uncertain indeed. Jacob Augstein, son of the late Rudolf Augstein, former editor of the SPIEGEL, just noticed that Germanys attempt to dominate Europe and Chinas attempt to conquer the world are reminiscent also of 1914 and one would need to defend and care for the future peace.

This year we will be more at Berlin to build the house, much in Liverpool and Geneva also. We realised that in-time booking of flights is economic but not when life forces too many changes closer to the flight dates. In fact we will again have difficulties to determine early on where we will be. One dreams of quietly being at one place and receiving you whenever you have time to pass by. That dream will be with us for a while. In summer, sth like end of July-mid August we will be at Teupitz again and we hope for one week at the Baltic Sea. In the 2nd half of June we will be at Sibiu/Hermannstadt in Romania. That is particularly interesting to us. Once a year, the ATLAS Collaboration goes outside of Geneva, in 2013 we were in Marrakesh (Uta at home – dommage), and in June 14 we go to Romania. Hermannstadt is the town the parents of my father stem from. They left in the early 20ies for Germany and Fritz Klein sen. became a leading journalist in Berlin. But a big part of their families remained in what is called “Siebenbuergen”, the land of 7 castles. As children we went there with my father several times, one of his cousins served as bishop of the Evangalian Church for decades, until 2 years ago, and we thus intend to go by car and take time to visit him and the old places. We will be in touch to be able to see you at the right place. Geneva may be interesting as we could show you a bit around, CERN, and could have a weekend in the mountains, for example.

Most importantly, the children: Anna is now 37, two grandsons, her husband Jan works in a technical job and in parallel is studying to become a engineer. She does coaching, solving people’s conflicts and got a part time job for teaching at a private University of Berlin. Dani is 30 and has begun another qualification to eventually (in 3-4 years time) work as a psychologist, a profession, which probably has a good future in this society, not to sound ironic, her husband Kris is working for IMACS. Felix is now 35 and you know about him, this year will become his year, where he finds his way forward, we hope and believe. Mascha, 25, left 3 days ago to Sao Paulo for 3 years, with the husband Karsten who has taken a job as teacher (Chemistry, Math) at a private school which has 8000 pupils, 700 of which belong to the German part, many tears at the airport. Basti, also 25, is working towards his Master in Chemistry to then likely begin a PhD. As in your case, they are all a joy, a cause for not loosing touch to life and sometimes a concern also. Uta’s mother Helga, 78, lives for her husband, and the family and that is currently not easy as there is a contradiction between her phantastic intellect and the sheer service she has been doing for very long. My mother, 88, Anna Dorothea, is a reliable rock in the storms a family can generate, she is the living generation and tradition we come from, and which I described with Herwig and Ludwig. We call our mothers very often, and that is always more than a family update, as you will guess.

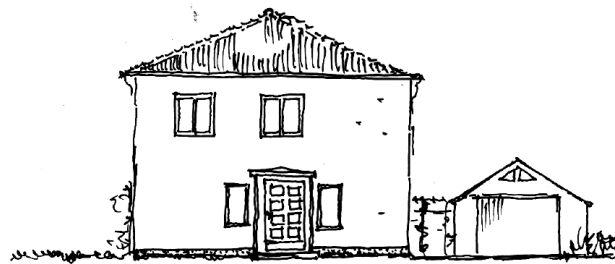
Barbara, Gary, we often think of you happily, as good friends. Below a few illustrations. Please take our very best wishes for the New Year, stay healthy, strong and close, yours Max and Uta

Anna Dorothea Klein, born Deiters (with Anna and Mascha at her 88th birthday)

Helga Harfenmeister, the rest you will recognize..

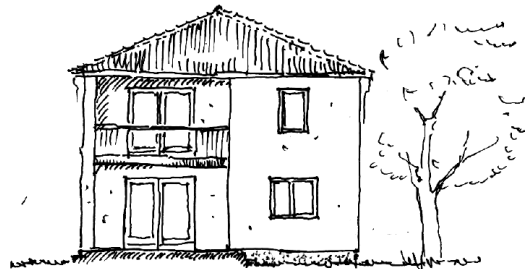






ANSICHT VON NORDOST

HAUS MAX UND UTA KLEIN JOHANNISTHAL
M 12100
Am 9.9.13



ANSICHT VON SÜDWEST