

CRITICAL THOUGHTS OF AN EAST GERMAN ACOUSTICIAN AFTER UNIFICATION OF GERMANY.

O. Alberts

Cirrus Research plc Schlueterstrasse 29, Dresden, Germany.

INTRODUCTION

The paper attempts to give a critical evaluation on the effects of the unification of Germany with aspects of life and the economy, especially in the field of Acoustics. The paper comes to the conclusion that the scientific landscape in the territory of the ex-GDR has lost and is still losing attraction.

This paper reflects on the developments in the field of acoustics in the ex-GDR after the unification of Germany. There was more than one reason for me to delay the writing this paper and to throw away draft after draft.

1. I am not one of the top rank of acousticians and many of the facts I have, come second hand.
2. You have to put acoustics into the context of the general political and economical changes.
3. To do this, at least in Germany, it is a fashion today to talk about the rotten economy and that it is the fault of the old system, particularly when 'things' break down after being confronted with the cold wind of market economy. I cannot join that train, as I am not yet convinced that everything was wrong, particularly in acoustics, in the GDR. Nor can I say, - and this may be difficult for some to accept - that the system we have now offers the solutions the world is longing for. Again, particularly in acoustics.

But I think you will forgive the fact that I am not able to trim my sail to the wind. I have, as most people at least in the early days of GDR, supported that system, as we thought that it was the answer to the many questions of mankind. It was a hard shock, when it was fully disclosed, that there were methods used which cannot be defended. Further more, there was the power with persons who may have begun with the real belief in the justification of what they did, but the longer they stayed the more they were just longing for power. That was the beginning of the end.

However, the theme of the congress is Acoustics and again I cannot praise the development since the unification of Germany.

Let me start quoting Professor Schommartz of University of Rostock, from the paper which he read at the DAGA conference in April 1992, the first all German conference of the Acoustical Society of Germany.

CRITICAL THOUGHTS OF AN EAST GERMAN ACOUSTICIAN AFTER UNIFICATION OF GERMANY.

"If I had to talk about the situation in the acoustical landscape of the ex GDR: I would not be able to. Too much is changing, influenced by desolate or closed factories and thus missing resources. This situation does not have a positive influence on the so called evaluation procedures (methods with which authorities, mostly from the western part of Germany try to find out if an Institute, a working group or a person should continue to exist). However, the potential, people as well as ideas, should still be existing. Now, some people open their own business and find support by governmental or other institutions. Many, however, and unfortunately mainly the young and dynamic experts, find better paid jobs in the old states of the German federation. Even if I can be glad for the individual, that he gets a new job and money, I am in sad for the potential of brain which should be kept on site to assist new and productive ventures in the East. Please take my words from this angle and not as a sign of a melancholia."

There has not been much change since, at least not for the better. To give you a few examples:

The same man who was greeted enthusiastically at the DAGA congress one year ago will be fired this month. The reason is as foolish as it is typical in many such cases, reasons which will reduce the scientific strength of famous and recognized institutions: Professor Schommartz is an expert in the field of hydro Acoustics. His Institute was situated on the Baltic Sea, with the GDR navy nearby. Any navy in the world is interested in hydro acoustical research. Thus, the Institute of Professor Schommartz got orders from the navy for such work. Of course, as everywhere in the world, the secret service had to observe these activities and, naturally the leader of the team was called on for reports. With these connections, inevitable at the time of the GDR, the result being, that he is not qualified for work with students and must go. Many people, especially the older ones, must go with him. Together with huge structural changes in the Universities and colleges the capacity for research work in our field is being reduced to a high degree. The capacity of the chairs at Universities is just sufficient to continue the teaching of students, but as many experts may leave, the level must be doubted. Similar development has taken place at nearly all Institutes, where there was capacity in acoustical work (and not only in Acoustics!). There was a strong working group in Dresden for noise and vibration abatement, belonging to a governmental Institute. Only a few of the experts have survived in terms of jobs (they now do bureaucratic work in the Umweltbundesamt) and the very fruitful work has gone.

The Bauakademie (academy for building) has been scrapped and the sector of Acoustics has nearly disappeared.

Experts also had to go at Dresden University and those who are still there, have not yet had their jobs confirmed. Just on the day of writing this paper one of the rainbow press Dresden came with the headline "900 jobs to be cancelled! Everyone at the University has to make an application for his position." That means, that the new term at Dresden University will at least begin with professors not knowing whether their jobs will still exist in a few weeks. You will be able to imagine, how that helps in enthusiastic work.

The capacity is still sufficient for teaching, but research can only be done in a small frame. It was in Dresden, where also during the GDR period fundamental research work was done with practical results. In Dresden the air condenser microphone was invented and the first precision sound level meter was designed, using the results from Dresden University. The production started earlier there than at such well known companies like Bruel & Kjaer or Hewlett-Packard. The research into equivalent sound level was also heavily influenced by the works of Dresden experts and the basic works of Dr Weissing in this field were so good that they are still quoted in a DIN standard.

CRITICAL THOUGHTS OF AN EAST GERMAN ACOUSTICIAN AFTER UNIFICATION OF GERMANY.

No wonder, that the first industrial instrument to measure Leq came from a Dresden company. This company has also practically ceased to exist. The remains were bought by a Munich company who specialise in activities in roof reconstruction- clearly the acoustic mainstream. The company, Messelektronik Dresden, lost more than eighty percent of its market with the monetary union on July 1st 1990. There is no company in the world able to withstand such sudden damage. One of the reasons given for the fall of the B & K empire was, as a leading newspaper wrote, "the loss of 20% of its turn-over in the East European market".

So what! If you had not lost 20% but 80%? In this case, even the best management is helpless. The GDR had supplied all of the Eastern block countries with their everyday needs in acoustical instruments. Only a small part was covered by highly specialised products from other suppliers, mainly from B & K. Now most of this capacity has gone. Only a few experts have kept their jobs. All or nearly all of those being over 55 years of age and these again are the people with experience, forced into the system of so called "age transit money", a system of early retirement created to give these people a social security, who in most cases have no chance of a new job. It relieves the unemployment statistics by a big part, but does nothing for practical acoustics. Social security in this case means, that they receive 65% of their last net income, whereby this last net income again is about 60% of the income at an equivalent place in the west of Germany. Thus, the pension received by such an expert is about 35% of the money which a West German expert of the same experience receives. (This is not valid for higher positions, as there it may be only 20%). All this is not very satisfactory for people who were promised by the Germany chancellor, that "no one will be worse off after unification."

Let us also have a few words on the word "unification" as I use it. Often you hear of re-unification, which, as I see it, is wrong to a high degree. Germany was divided as one consequence of World War 2 and from the very beginning, both parts were shaped by the powers occupying it. So 44 years of increasing differences in education, culture and everyday life also shaped the people. While in the West, you grow up knowing that there is always a risk in your social position, there may come unemployment, a landlord who throws you out of the flat etc., all this did not exist in the GDR. People were told that work is not only a means to earn money but also an obligation to society. Now suddenly all of these measures are wrong. This leads to a high degree of frustration, again especially with elder people. It is clear to everyone who has learned to think, that the inner unification of Germany will take at least one generation, if outer conditions allow. For the time being, I doubt that they do.

Another problem to consider is the fact that we believed, that in Germany there would be less bureaucracy than we had in the GDR. Quite the contrary, where we had one paper before there are now three. The system of laws; in the GDR all essential laws were written in order to be understood by people with average intelligence. Now all this has gone. You need a lawyer if only to translate the laws into readable German. This particularly applies in acoustics where we have to start again on laws and standards.

CRITICAL THOUGHTS OF AN EAST GERMAN ACOUSTICIAN AFTER UNIFICATION OF GERMANY.

In the fields of Standards the old system was clearer. All standards in GDR were written by experts from different sectors of society and they had to fit into the international system of Comecon. This in the beginning was purely based on Soviet standards but then moved more and more towards IEC. After they were agreed there was only ONE system, the so called TGL. Even, if their quality at the beginning was not always as high as an IEC standard, it was easy to find and understand them. Now we have this mixed system of DIN, VDI, Technical Instructions and regulations, which does not help clear decision. We also have to learn new fundamental units like the Takt maximal level, which was invented in Germany some dozen years ago and even though we now have computers and methods with physical meanings to replace Takt max it is like Johnny Walker: still going strong.

Of course, as Germans tend to be perfect, simple L_{eq} is not enough to describe a noise situation, there must be different additions to it, such as impulsivity and tonality addition. The regulations go into detail in describing, how accurately it has to be measured. Then, you suddenly read for certain measurements "if the additional value cannot be determined by measurement, it may be estimated according to the remarkability of the impulses to either 3 or 6dB." Everything is clear now. However, who of you can estimate the impulsivity of noise if it should be 3 or 6dB?

The same is valid in the field of Airport noise monitoring. The whole world measures the equivalent sound level with $q = 3$. In Germany you have to use $q = 4$ and to calculate values for which no international equivalent exists: with no hope of altering that system, as it is included in a law which has passed the Bundestag. Who is keen enough to charge a parliament with the change of a number from 4 to 3 in a law with no essential meaning.

Of course, while I have given here mainly negative examples, it does not mean, that the majority of people have not welcomed the end of the repressive system of the old GDR. At the beginning the movement was for a better GDR and it was sheer monetary aspects which led to the quick - in my eyes too quick - unification. The slogan, which was shouted first in Leipzig at the beginning of 1990 says that clearly (the translation is poor English, but you will understand):

"Comes the De Mark we stay here, comes it not we go to her." It was this thinking which has forced thousands of people to leave and go to the west. The official policy claimed that only by quick introduction of the DM in the GDR could that migration be stopped.

The DM came and a lot of our ideals went and with them much good acoustics. Yet even so thousands of people migrate to the west, mainly the younger and more dynamic. They are afraid of unemployment and they get full pay in the West but only 65% in comparison in the East. Thus the Eastern part of Germany offers less to investors and this leads to a vicious circle. Nobody now seems to have a real solution and much acoustic work is lost.

Again, if I had to choose between the system of the GDR in her last years and the all German ones, of course I would choose the latter as this is the better of the two choices. However, I would wish that we really had unification using the best of both sides and not just another semi-colonial system as most in the East now see it.

Our small company, Cirrus Research, cannot alone change all this, all we can do is to continue to work in Dresden, part of the greater Germany, and work for a better acoustic future. Certainly, the use of high technology is coming to the Eastern part of Germany as fast as it has elsewhere. Will we soon be all the same?

CRITICAL THOUGHTS OF AN EAST GERMAN ACOUSTICIAN AFTER UNIFICATION OF GERMANY.

REFERENCES

- 1 G.Schommartz 'Zur Akustik in der ehemaligen DDR' DAGA 1991 Bochum
- 2 'Family Dynasty falls' Berlingske Tidende 8 July 1992
- 3 DIN 45645 Teil 2 item 6.4.1.

