

Developing and deploying graduates`capabilities for entrepreneurship and innovation via the High Potential Program of the Management Institut, of the University Mittweida
(Prof. Dr. Rainer Jesenberger)

Abstract:

The following paper reflects some general considerations on the requirements of the modern working world. The author then shows the results of a survey which was finished beginning of 2002 and which describes the requirements for academic professions. The statistical groundwork is set up by more than 1000 job offers in German newspapers. Another issue deals with the methodology the High Potential Program has developed to train entrepreneurial key qualifications

Mr. Chairman,
Ladies and Gentlemen

.....It is a simple truism that we have difficulties to realize slowly proceeding social changes. Behavioural scientists call this phenomenon the so called frog syndrom. When you put a frog in a flat pot of boiling water it will immediately leap out or at least it will try. However, if you place the same frog in the same pot of lukewarm water and then slowly heat up the pot on a hotplate not to frighten the animal – it will feel quite comfortable and remain seated even when the water is boiling. But finally it begins to feel faint and at the end it is too weak to come out – literally the frog will boil itself to death.

At this point you may ask: What has that to do with Entrepreneurship or Innovation?

I think there is a strong connection with the frog in the lukewarm water as far as our ability is concerned to realize changes of the working and professional life respectively. We still teach our children in the same way as we were brought up. To learn a profession, to work a full life, to receive promotions from time to time and then finally retire at the age of 65 as honourable parents. We assume or at least we hope that our children will have lifelong employment in the same enterprise until they retire, although we know that this will not be the case. Even in Germany, we know that we shall have a job for some time and not lifelong employment. We know that happiness in the profession is such a fragile thing. We have a challenge or a job for some time and if we are lucky we shall get another one also for some time and so forth.

Flowing from these preliminary remarks I dare to state my theorem: To make a distinction between entrepreneurs and employees as non-entrepreneurs has lost

its importance in the modern world of business. Instead of considering the legal relationships from a pure shareholder's point of view it is much more essential in industries to claim that anybody who takes responsibility is an entrepreneur. This definition implies that a designer, a service engineer or a chief buyer of a car manufacturer who may dispose of several hundred millions of Euro every year is an entrepreneur although from a legal point of view they are employees. However, they have one essential aspect in common: They take responsibility for quality, design, expenditures etc.

Auswertung des Stellenmarktes

Quellen: Frankfurter Allgemeine Zeitung und Süddeutsche Zeitung

Auswertungszeitraum: 01. November 2001 bis 02. Februar 2002

Stellenangebote gesamt: 1037, davon werden bei 64 % der Stellenangebote Hochschul- oder äquivalente Ausbildung gefordert

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It's always useful to prove statements even if they seem to be truthful. The MIM Management Institut, an industry subsidized Institute of the University of Mittweida, had surveyed the trends of job offers in Germany. For this purpose we looked at more than 1000 advertisements of the 3 best known German newspapers: Die Frankfurter Allgemeine Zeitung, Die Süddeutsche Zeitung und die Welt. The period of investigation was from November 2001 to February 2002.

Let me summarize the results of the survey:

1. The graduates of the so called Fachhochschulen or Universities of Applied Sciences, which are the equivalent to the Technikons in South Africa, dominate job offers for engineers and management experts. Our Dipl.-Ing. (FH) or Dipl.-Betriebsw. FH) Graduates are equally in demand in the real working world as are Hochschul Absolventen or University graduates respectively. Needless to say that this applies to engineers and management experts and not to graduates of other programs such as history, philosophy etc. Approximately 70% of the job offers had explicitly referred to graduates of Fachhochschulen.
2. Nearly one third of the academic job offers consider the qualification gained by experience combined and mixed with continuous education courses as equivalent to a University degree. This result is surprising as we have anything but a booming economy at present. So one can expect that enterprises could select their young blood amongst a greater generation of academics. It did neither dawn upon Universities that there is an eminent danger for them nor do they have the slightest idea of how to meet this challenge. The conclusion, in my opinion, is that the industries feel that they can provide proper training without the traditional support of Universities. Let's call this lifelong training on the job. By the way: I fully agree with Latagan: "A degree is incidental....This new approach places more emphasis on life long learning than on any qualification attained at an institution...."(Prof. Laetus O.K.Latagan: "Economic-Driven Higher Education: A philosophical analysis")

So in future Universities will compete with enterprises for educational programs and training courses and vice versa. Both will have to search for new ways of sharing the responsibility to train students and offer continuing education as well as adult education.

Another result of the survey is that nearly all jobs offered, required some skills in addition to the professional qualifications. So beyond the engineering, management and economic capabilities, a number of so called key qualifications

were requested, e.g. the ability to handle conflict or stress situations or to be creative or a team player and so on. To meet the demands of the jobs, a good command of the English language as well as a good knowledge of information technologies, PC and computer programming were required too. Regarding the actual professional qualifications the majority of the job profiles were aimed at a broad knowledge in engineering instead at specific subjects. The explanation for this is obvious. To facilitate a flexible reaction on a variable order situation, to changing products, capacities on the shop floor, at the assembly lines and so on, management needs engineers and administrative staff who are able to do various qualified jobs in the designing, servicing, and purchasing department, depending on the actual workload situation of the company. This is not contradictory to a highly specialized working environment. It is just the other way round: Since industries are that complex, we can't learn and study everything needed at Universities but have to rely on our key qualification and on learning on the job.

I can not pass judgement on Universities in other countries, but the German Universities focus on imparting knowledge, on specialising in materials and fields. However, it is apparent from the previous remarks that they do not fulfill the requirements of modern entrepreneurs. German Universities don't aim at giving young men and women an understanding with leadership, responsibility and other key qualities since this is not part of their frame of reference.

So let me now explain what we are doing in the High Potential Program to overcome these educational deficiencies. First at all, the High Potential Program is a systemic and systematic approach. This implies a comprehensive view of human being as the foundation of the training program. There is an important difference between our program and the numerous courses which are offered in rhetoric, psychology etc. inside and outside of Universities. On the basis that a human being consists out of body, mind and soul, we have developed what we call "areas of competence" embracing the human being in its entirety.

The first area is directed at **competence of fundamental and methodical principles**. In this module we promote thorough and critical thinking. There are a lot of so called "management by....(something)" waves spilling over from the USA into the rest of the world. Some of them disappear within a few weeks, other trends such as the shareholder value philosophy survive long enough to find its way into books and lectures of professors. After having frittered away money and time, the recent technical concepts of cellular radio in Germany and some other European countries turned out to be unrealistic. We would like to put our graduates in a position to judge correctly and critically before wasting time and money. This is a real entrepreneurial approach. We aim to support this with some philosophic courses. It is not important whether you study the work of

Kant, Nietzsche or Rousseau as long as you work through the reasoning and the body of thought of one of these works.

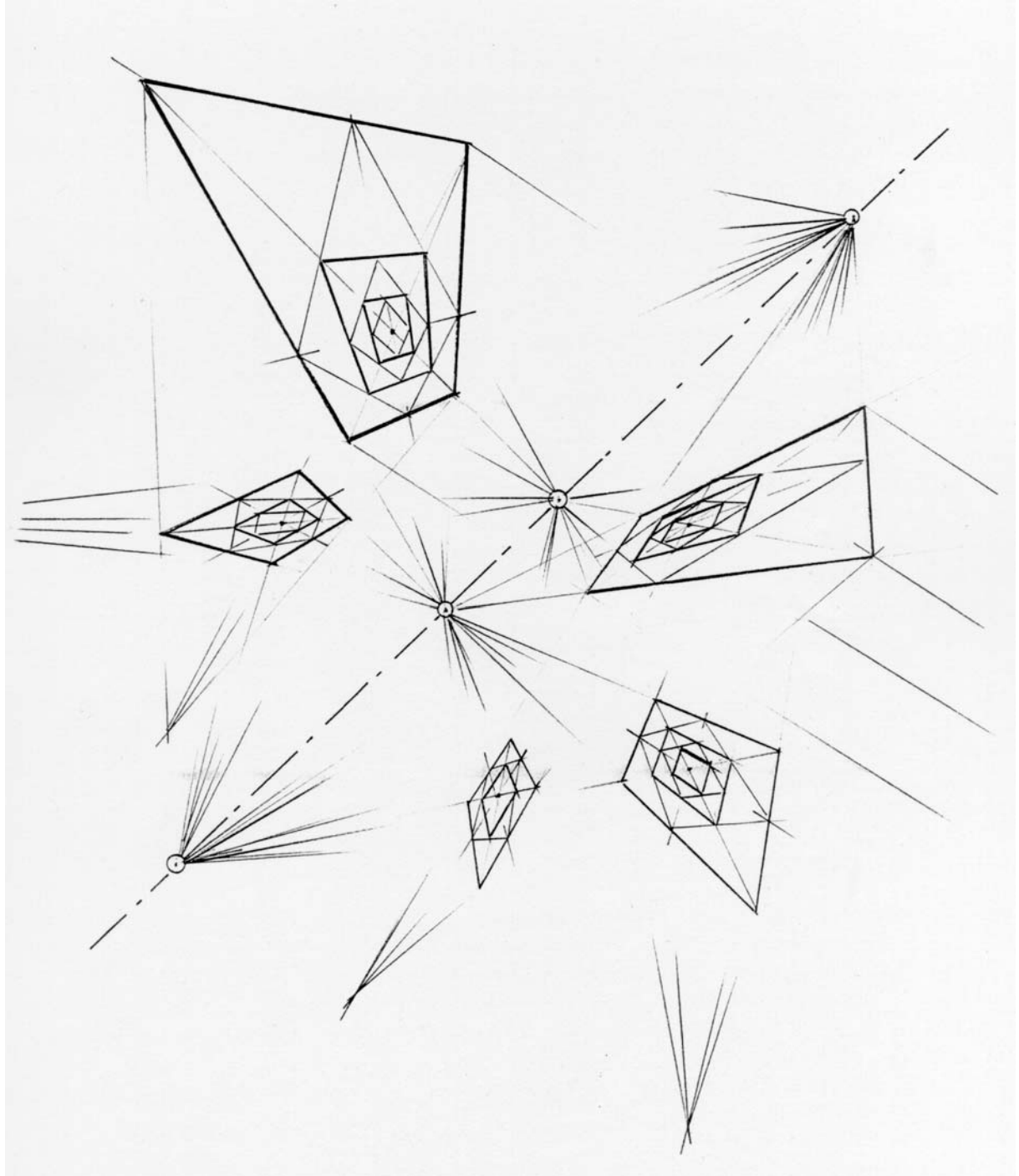
At present we have a module "**Dialogische Führung**" or "**Leadership on the basis of dialogue**". We investigate the following issue: What leads an individual to take the initiative? And how can individuals be induced to cooperate fruitfully? What kind of capabilities lead us to a functional dialogue? How can we practice mutual understanding and comprehension?

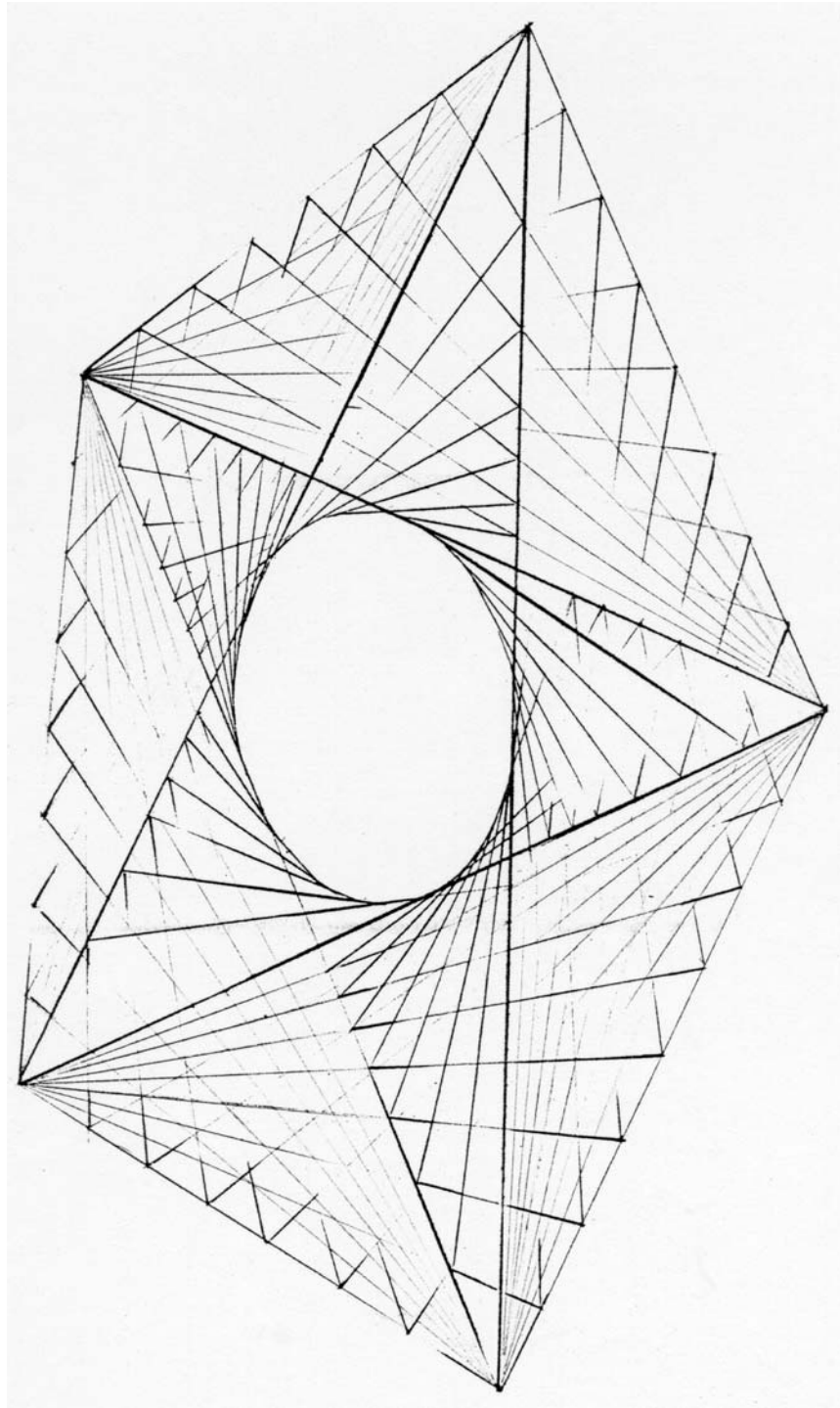
Another module deals with "**creativity by means of projective geometry**". This course is also intended to foster the development of will and imagination. The projective geometry is only the instrument in a process of broadening the horizon of thinking. It goes without saying that we neither plan to convert our students of engineering or of economics into mathematicians nor do we intend to teach them more mathematics, which some of our professors believe they would need. To develop and use creativity is a slow progressing process. Contrary to a commonly held opinion the development of creativity requires a lot of energy as well as clear and precise thinking. Composing sonatas and other pieces of music were hard work of studying in the laws of harmony and composition even for a genius such as Wolfgang Amadeus Mozart, as we know from letters he had written.

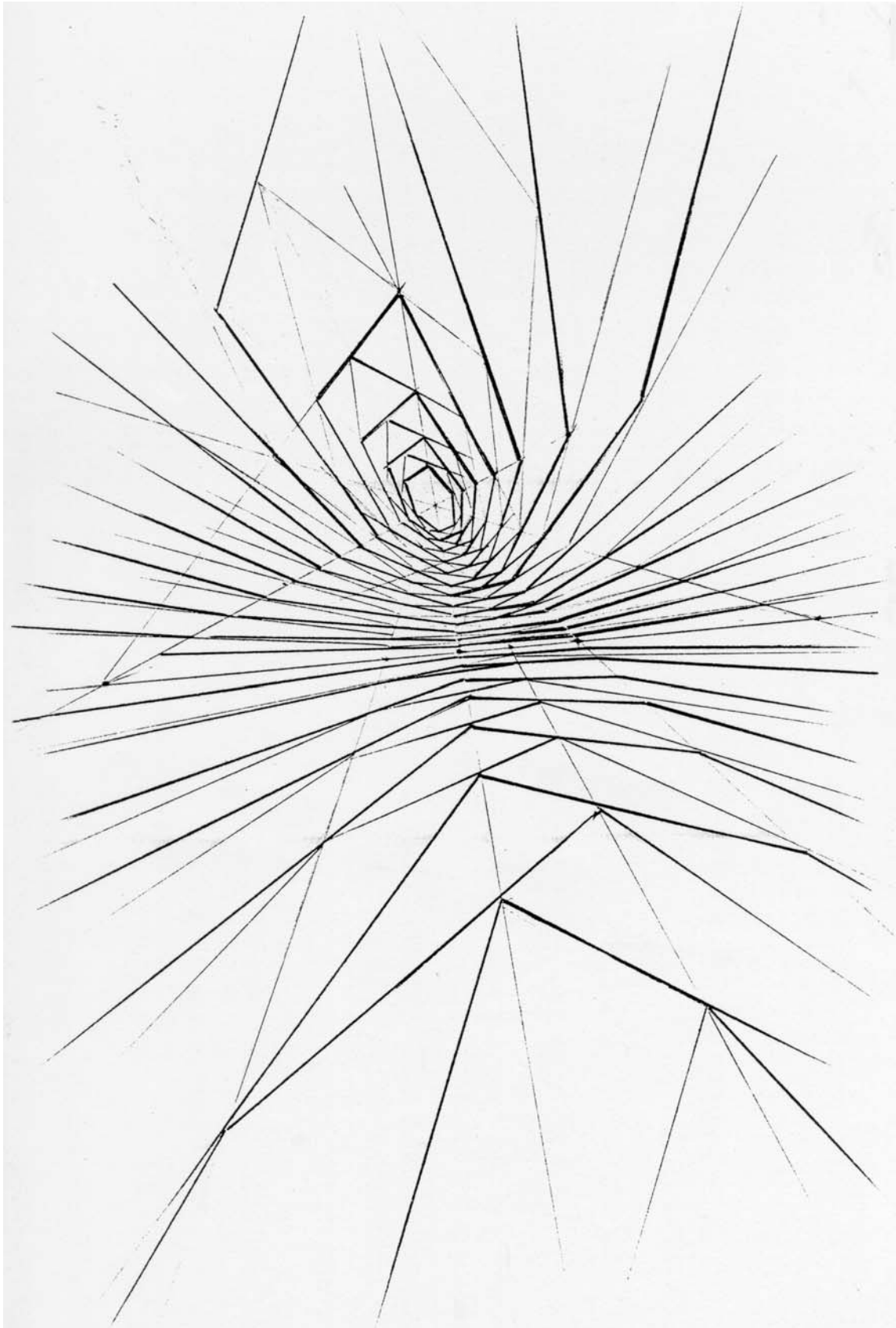
Projective geometry supports similar processes of creative working. With the laws of polarity, the infinite distant elements as an infinite distant point, infinite distant straight line and the infinite distant plane we develop unusual conceptions and imaginations. Another peculiarity is a new conception of measurement, which is not the metric system of measurement.

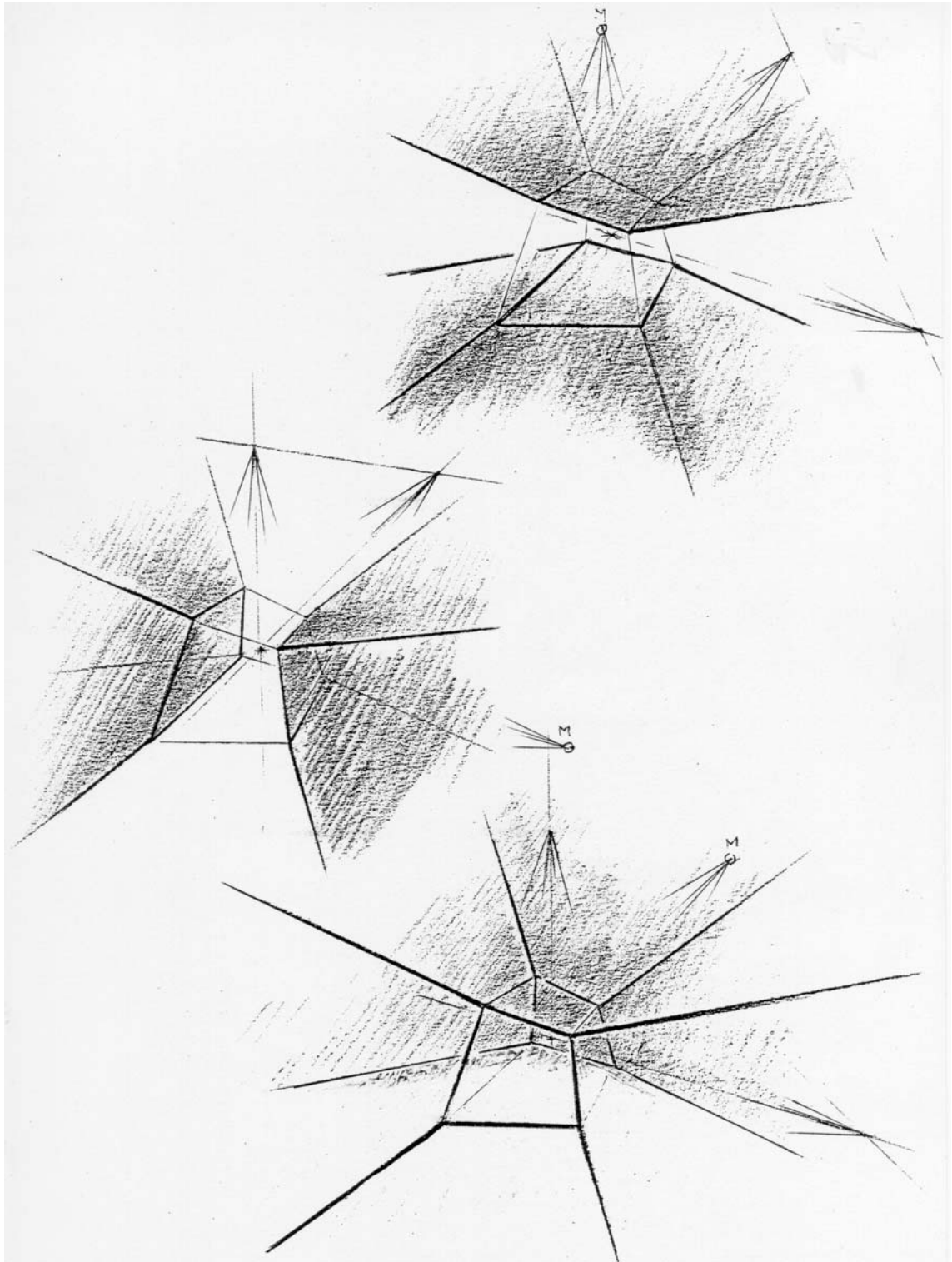
The course is organized as a workshop. Emphasis is placed on doing the process, in this particular case priority is given to drawing. Space is experienced through drawing.

A few samples will illustrate the essentials of this course:









A good example to develop creativity is the employment of the method of defamiliarization or alienation. Since creativity is something like a hyper quality, which applies to all human actions we can not develop it by doing our specific job as a bookkeeper or design engineer of circuits. However we show students in this workshop examples of engineering and economics where unusual ways of thinking lead to new products and results.

There is a further unusual module "**Wie eine Theaterszene entsteht...**" or "**Creating a theatre scene....**" Again we do not intend to open a new faculty for dramatic arts. We contracted a lady who is an actress and producer. What she intends to convey is improvisation and not finished and fixed patterns or schemes. Her sense of direction goes back to the Russian actor and producer Michael Tschechow. According to him everything that turns out in the performance to be rigid, paralyzed or stiff keeps the actor from the essentials of his profession – improvisation and extemporization. He also emphasises the strengthening and refining of human expressiveness in order to gain harmony and balance between thinking, feeling and will. The course starts accentuate attentiveness as the basis for all further activities. The next step is to make the body permeable through psycho-physical practice which transforms the body of the actor to an instrument of expressiveness. This is gradually followed by the establishment of relationships, based on a partnership founded on truthfulness of feeling.

Again, as with creativity we don't plan to transform our students of engineering into actors. It's about developing sensitivity. It's about sovereignty in so called open and not preconceived situations, it's about imagination.

As you can imagine, unusual methods of education leads to envy, mistrust and criticism. Among many other reasons, misunderstanding can easily be clarified: The key qualifications, will never replace the professional knowledge a mechanical or electrical engineer or any other profession requires. However, professional knowledge alone is not enough in a high cost country such as Germany to compete against the emerging markets. We realized that in Japan and in Asian countries they produce the same quality of cars, machines, consumer goods etc. In other words we need to use our personality and individuality in addition to the laws of Kirchhoff and Ohm and all the professional and scientific details electrical or mechanical engineers etc. have to master.

One of the strongest arguments promoting unusual ways of education and training is to refer to applications in industrial branches. Industry is much less conservative in experimenting with new methods than Universities are. Quit

opposite: Entrepreneurial entities are hunting for unconventional methods since they are confronted with competition, customers, new technologies and would like to survive. All these features create a climate of innovation in the training, teaching and educational methodology. A good example is that the High Potential Program has actually learned from industry by adopting the course “Creating a theatre scene...”. There is a large drugstore chain in Germany, called DM which stands not for Deutsch Mark but for Drogerie Markt but of course the similarity is not coincidental. The DM has sales of several billion Euro per year, with more or less 15.000 employees operating in Germany and Austria. They also have 1000 branches, concentrating their sales on large cities in Germany and Austria. This enterprise had introduced “Creating a theatre scene....” as a course for the sales personnel. Needless to say that the training of so many sales people is expensive.

As a last example I would like to refer to the module “Erlebnispädagogik”. Normally the German language has longer descriptive terms than English. Consulting dictionaries I found the English equivalent as “System of education through practical experience rather than classroom studies.” We have to bear in mind that we deal with young people in the age bracket of 22 to 25. Learning through thinking and recognition is the academic way. However, there is another approach which is underestimated by Universities: This is Learning through experience. The method applies especially to some key qualifications. What we do, is that we take a 6 – 7 hours hike into the Austrian mountains, which is not dangerous but requires effort and strength. In this manner we train endurance, another essential key qualification of entrepreneurs. It may sound strange but by hiking in the high mountain region we experience what entrepreneurs are confronted with in another way: The feeling of being a winner, embedded in a beautiful landscape and on the other side, a mortal feeling which you can experience in high mountain areas and deserts. The latter is in analogy to the failures and flops entrepreneurs and leaders in business have to withstand.

Without going into details I would like to summarize the High Potential Program as follows:

It's an overall concept for students in the last semester before leaving the University. This is what makes it valuable for both sides. For the students since they receive valuable training of which the content is not included in their normal studies and which would cost them a lot of money they likely could not afford. To the enterprises it's valuable since it saves them the time they would have to spend on incorporating and integrating young people in the business world.

The latter is the reason why we receive money from the industry to finance the program. We don't get any money from the local government or from our

University for the program, however we may use the University premises and facilities at a favourable price. Our main sponsor is T-Systems, a 20.000 employee subsidiary of the Deutsche Telekom. They have explained the costing to us: An advertisement in one of the large German newspapers costs anything between 10.000 to 20.000 EUR. Then somebody has to work through the batch of applications trying to find out the most suitable ones which is a costly and laborious undertaking. Then you invite maybe 10 applicants for an interview, select 2 or 3 of them you would like to have on board but unfortunately two have changed their mind in the meanwhile. So after all this effort you may end up with one, and this graduate needs a half year training period to cope with the change from theory to practice which again adds cost to the whole process. So an entrepreneur has to invest in the range of EUR 30.000 to 40.000 to get a graduate really productive.

Another interesting aspect is how we select the High Potential students. The selection of 17 students out of 40 to 50 candidates is the responsibility of some line managers of our sponsors, executives and chiefs of the personnel department. So we establish a group of decision makers with a varied technical or management background as well as experience in industry. But the common characteristic is that they all have experience in leading personnel. So we let them decide – on the basis of the interviews and discussions - whom they consider a High Potential candidate. In this selection process, no professor is involved since it is important to realize the potential of an individual which is completely different from something like being „excellent“ or a „very good“ student in mathematics or another subject to base a decision on that basis. They have an interest in identifying the leaders, knowing that there are different types of leaders as social leaders, technical leaders, management leaders etc.

Of course participation in the program is voluntarily to the students. All workshops are held on weekends or during the semester, many of them outside the University at seminar hotels. Motivation and engagement is one important criteria. We charge the students EUR 300.- for the whole program, which is a moderate fee considering that this includes all costs of accommodation in hotels, meals etc. Our total costs for the whole program and for 17 students amount to Euro 30.000 to 40.000. This is because most of the workshops or courses are held by freelance consultants and not by professors. So good freelance trainers cost something like EUR 1.000 to 2000.-per day. As mentioned before the program is subsidized by industry. As you can imagine the sponsor companies are watching “their” candidates during the program. But the students are not obliged to join the sponsor companies. So the whole situation reminds to a ball we organize. Some of the dancing partners may marry later on or not. So we are the organization committee of the ball but of course we have nothing against if some couples marry.

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