

# Obituary Jean MOOTZ (1931 - 2013)

[Francis Massen](#), [Claude Baumann](#)

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*Jean Mootz in May 2011 with Computarium members and former students Claude Baumann and Louis Wilmes during a workshop in Luxembourg City.*

## 1. Biography

Jean Mootz was a single child born in a typical pre-WWII family: his father was a mechanical technician, and his mother a housewife looking after the family. Jean's father rapidly switched from mechanics to chemistry and started to work as a laboratory technician in the department of chemistry at the *Athénée de Luxembourg* (AL), one of Luxembourg's best-known secondary schools. So Jean became familiar with chemical analysis very early, as in these times the department of chemistry at the AL carried out numerous food related chemical analyses that today make the bread and butter of the National Health Laboratory.

His parents bought a small dual floor house at 79, rue d'Eich in Luxembourg City; Jean who remained a bachelor, lived in that house up to 2011, when he moved over to a retirement home.



*Jean Mootz in front of his home. This was one of the last houses in Luxembourg having a 110 Volt tri-phase AC power connection. The grey box is a special 220/110 Volt transformer installed for this single customer. Usual 220 V rated house appliances were connected between two phases, and many lamps fitted with 220V bulbs, which gave a rather dim light. Electronic devices usually had their own step up transformer, of which there were at least ten sprinkled throughout the house. (picture taken in October 2010)*

After primary school, Jean made his secondary studies at the Athénée, before starting his university level studies in Luxembourg (the first year had to be done at the Cours Universitaires in Luxembourg). The remaining years were spent at the University of Strasbourg and finally at the Sorbonne in Paris. To become a lyceum-type teacher, one had to follow two curricula: Jean choose biology (as the minor) and chemistry as his main subject. Having finished the academic years, and after the last examination delivering the title of "professeur-docteur" required to be allowed for entering the training years preceding full tenure, Jean found that no opportunities were available for a chemistry teacher (or as we say in Luxembourg, a chemistry professor). So he spent about two years as an assistant to a minister (M. Emile Schaus) of the Luxembourg government; he never had any regret about doing a clerical job far from his scientific matters, but found this side trip into more or less unknown terrain very stimulating. Finally, he was admitted to the trainee years, which he spent at the Lycée de Garçons (LGL) and the Athénée, both in the city of Luxembourg. Having passed the last examination (called "examen pratique") he started his full-time teaching career at the Lycée classique de Diekirch (LCD) in 1960. Each day of the week he took the train from Luxembourg to Diekirch to teach biology and chemistry for all classes (K-7 to K-12). He was a member of several commissions and of the jury holding the practical teacher's examinations.

Jean retired in October 1992 and lived in his home until 2011. Starting about at 2007, his health deteriorated constantly. The symptoms were increasing pain in his feet and legs, and more and more difficulties to move. After many medical tests, he was told having [polyneuropathy](#), an incurable disease where the muscles do not respond properly to the nerve signalling (similar but not identical to ALS or Lou Gehrig's disease). As living alone in a house with back-breaking staircases became impossible, he entered the retirement home "Fondation Pescatore" in Luxembourg City. Alas, his disease continued to progress, and the last year of his life he was nearly unable to move his limbs and was forced to keep his bed 24h/24h. The crew of the Fondation Pescatore did an admirable job to make his life as tolerable as possible. His mind remained mostly crystal clear, even if talking became practically impossible near the end. Being fully aware of his worsening conditions and remaining nevertheless open to discussions and comments showed that Jean had an tremendous courage until the very last weeks, when terminal fatigue led him to pass away.

## 2. The teacher

Jean was an extremely colourful teacher, who left lasting impressions on most of his students. His nickname was "Goofy", and much affection was associated with this name. Jean's teaching lessons never were boring, and he never was the man of one single book. Be it biology or chemistry, he always knew the practical sides and industrial applications, and he kept up to date by building a huge private collection of scientific books. His interests were not limited to biology and chemistry, but he also was fond of mathematics, graphics, electronics and computing.



In the 60's, biology also meant anatomy, and Jean built a large collection of white mice used for dissection by enquiring students (these mice were usually put into deep sleep by chloroform, so that terminating their lives was never painful).



*Jean Mootz in 1963 as a young teacher during the "Buudskiirmes" (the fair of the Pensionnat St. Joseph, a boarding house for students of the LCD). Students from left to right: Roland Fritz, Paul Quintus, Francis Massen, Robert Schmit (+).*

### 3. Electronics

One of his biggest successes nevertheless was his electronic workshop. Jean was an autodidact in electronics who rapidly became a real expert in the most arduous matters: first in analog circuitry, then in integrated, digital electronics and finally in micro-controllers. He started in the 1950's by building radio and TV kits, and making a lot of TV repairs. His collection of Heathkit assemblies is very large, extending from power supplies to measurement instruments, plotters and even spectrum analyzers. He also was a well-known ham-radio amateur (LX1SK), and the president of the Luxembourg "Radio-amateurs" association for some years. Receivers and transceivers, slow-scan TV and RTTY were familiar subjects. This background enabled Jean to offer electronic workshops for interested students. He installed an electronics lab in an unused (and not well known!) part of the attic of the LCD, doing all the installation work with the help of one or two persons. One or two times a week (and often even daily) students gathered in this attic and learned the basic of transistor circuitry. Printed boards were etched with homebrew devices. These electronic circuits may appear primitive from today's point of view, but were then almost ahead of time.

Jean very often was called for help when a complicated problem seemed unsolvable (such as the problem for synchronizing sound and video, which drove the LCD filmmakers to despair). He had a "green thumb" regarding electronic problems, often finding a solution by guided intuition, sharp reasoning and fearless testing!

### 4. Computing

When the first microcomputers (like the Altair) started to show up in the electronics journals, Jean saw a new opportunity to acquire new knowledge. Francis Massen had started with optional BASIC programming courses in 1974, but the programs had to be executed on a HP2100A minicomputer located in Luxembourg City (which meant travelling every Saturday to Luxembourg with buckets full of marked cards or perforated tapes). When Jean read about an obscure Texan company "Southwest Technical Products Cy." and their microcomputer kit based on a Motorola 6800 microprocessor, hell broke loose. He quickly found that an US guy with name Kirkland sold these kits in Brussels. So he convinced me (F.M.) to make the trip to Brussels and to investigate the shop. Actually, there was no shop, but Kirkland sold his kits in his kitchen and flat-corridor. I typed a few commands on the single running machine, and was dumbfounded that the BASIC of that tiny box outperformed the HP2100A. So we ordered two kits, and each of us assembled with great care the thousand of pieces (nothing was prebuilt, even the keys of the keyboard had to be assembled). Jean was first in having his computer running, but I was close second. These were the 2nd microcomputers in Luxembourg (the first one was built by a young engineer C. Welschbillig). After a few months it became clear that this microcomputer could replace the big HP2100A, and we built a third one for the computing lessons of the LCD making the weekly travels to Luxembourg superfluous.

From that year 1977 on, computing and informatics did fascinate Jean Mootz. Similar to his previous achievements in electronics, he became a computer guru, both in programming and hardware. He assembled numerous interfaces to command stepper motors or other devices. His attic at home was an Ali Baba cavern of

everything that was related to electronics or computers. As he made numerous trips to the Belgian second hand shops selling disused military equipment and components, there was practically nothing that could not be found in this lab!



*Jean Mootz in his attic, showing former technician Marcel Schauls of the physics laboratory a tape puncher driven through the parallel port of a PC. This was the last electronic and programming job done before his entry into the retirement home Fondation Pescatore.*

After his retirement, he became a regular visitor to the computing department of the LCD, of which I was the manager. Usually I put aside one or two irreparable machines, and when Jean came for his visit, he normally was quick in solving the problem. These visits (about one every three weeks) continued up to 2010, as long as Jean was able to walk and take the train.

In 1999-2000 the meteorological station of the LCD was offered a definitive housing. Jean was instrumental in planning and helping to install the main rack with all the cabling and components.

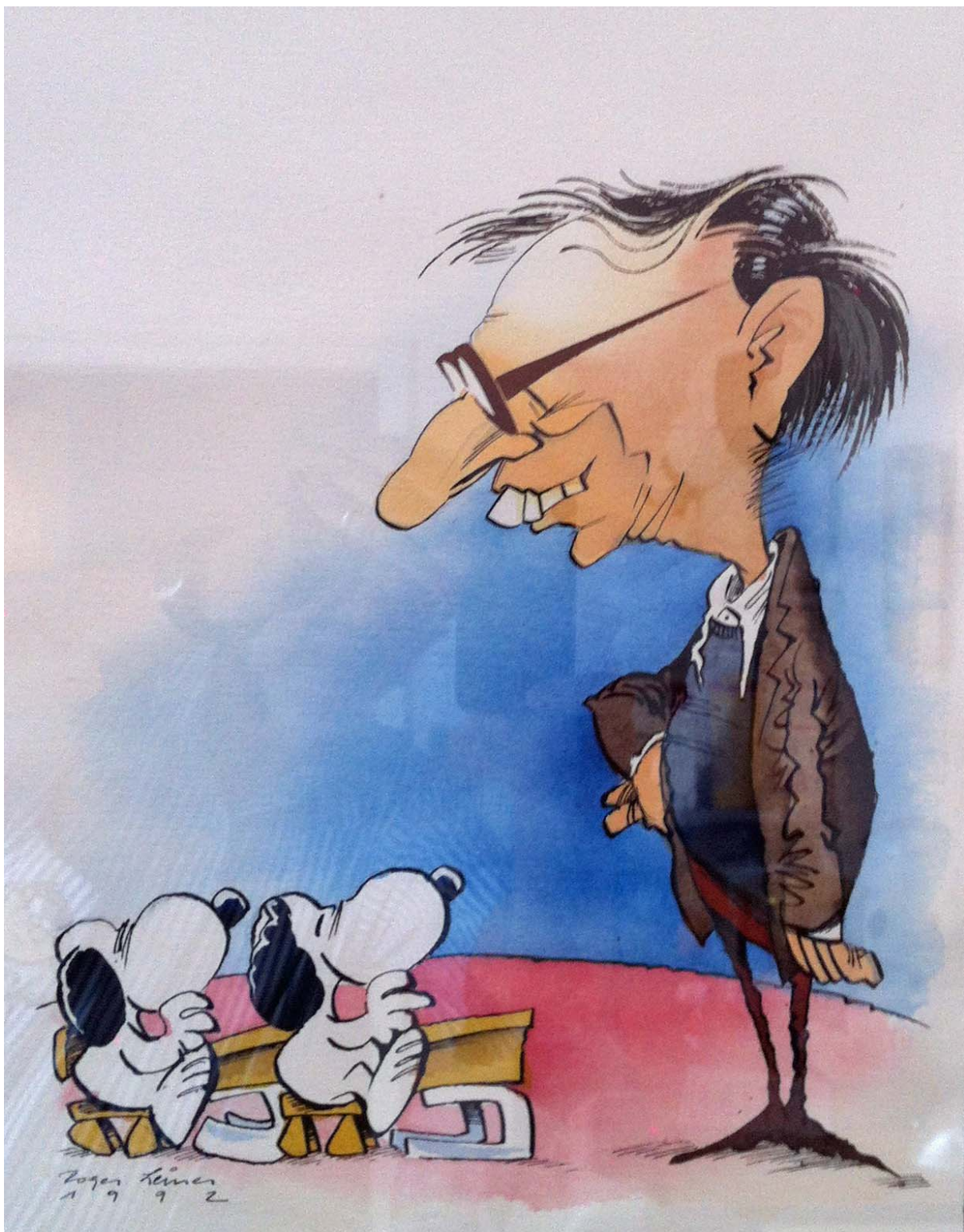
When the Lycée classique de Diekirch (LCD) celebrated its 175<sup>th</sup> anniversary, Jean Mootz helped to plan a large exhibition of vintage calculators and computers, and later became one of the greatest contributors to the [Computarium](#) of the LCD.

## 5. A fan of Snoopy

Jean always liked comedies, and watched with great pleasure the French classics of Bourvil and Louis de Funès, as well as the often deep going humour of the great German writer and performer Loriot. This tendency became most apparent in his tremendous love of beagle Snoopy and his companions like Lucy, Charlie Brown etc. Over the years he assembled a truly extraordinary collection of Snoopies of all kind: small ones from plastic or ceramics, and many, many bigger ones which were welcome to be huddled and fondled. In his home, there was not a single place without Snoopies. He clearly had his favourites, evidently as for a long time some had lost their brilliant white colour due to intensive handling. When Jean went into retirement, his colleagues gave him as a present a cartoon by the famous Luxembourg cartoonist Roger Leiner showing Jean teaching a class of Snoopies (see next page).

During the last months in which he was unable to move, putting a Snoopy on his bed so that he could touch its smooth texture made him relax and created a soothing atmosphere.





*A cartoon by Roger Leiner, given by his colleagues to Jean Mootz as a present when retiring.*



## 6. An exceptional man

Jean really was an exceptional person: he was very social, participating in many school related trips. He did not much care if his shoes were shining, as he deemed the function primes the form. When help was needed, he never refused but invested without counting time nor money. Above all, as a teacher he never was boring, and his lessons spiced with dry humour were starting points of non-ending discussions. In many things he was an autodidact of the noblest species: not a brainless tinkerer, but one who knows that acquiring capacities needs personal work and effort. As a colleague and friend he will remain irreplaceable.

## We remember :

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### **Ranga Yogeshwar**

physicist and scientific journalist  
producer of scientific TV shows (Quarks & Co.)  
former student of Jean Mootz

Jean war in der Tat ein ganz besonderer Mensch. Bei ihm sah ich den ersten Videorekorder, den ersten Taschenrechner, den ersten Computer, die erste Kurzwellenstation, durch ihn machte ich mein erstes Video mit einer Kamera.... Jean war ein Nerd mit einem großen Herz. Er hat uns allen sehr viele Türen geöffnet und sein Engagement war einzigartig. Gerne erinnere ich mich an gemeinsame Wanderungen oder an die Tage in der Rue d'Eich, in seinem kleinen Haus, das voller Geräte und Apparate stand... Menschen wie er sind Schlüsselfiguren und haben einen erstaunlichen Einfluss auf die Biographie anderer Menschen. Jean hat uns durch das gesamte Gymnasium begleitet von der VII e , wo wir im neuen Biologietrakt Filme auf damals modernen Projektoren betrachteten bis zum Abitur, wo wir in seinem Chemielabor unsere Nebelbomben bastelten...

Heute morgen hatte ich ein live-Gespräch mit RTL-Radio; eigentlich eine Ankündigung der heutigen Quarks-Sendung. Ich habe die Gelegenheit genutzt für einen knappen Nachruf, habe von Jean erzählt und davon, dass er sicherlich prägend war für viele seiner Schüler und auch für meine ganz persönliche berufliche Entwicklung. Die Sendung heute Abend zum Thema "Roboter" habe ich ihm gewidmet.

Vor ca. einem Jahr rief ich ihn an, nachdem Francis mir von seiner Krankheit erzählte. Er hat sich sehr gefreut....Auch wenn wir in den vergangenen Jahren wenig Kontakt hatten, so hatte er immer noch einen besonderen Platz und die Nähe zu ihm blieb. (listen to an [interview](#) on RTL radio containing a remembrance of J. Mootz, in Luxembourgish).

### **Robert Massen**

professor, University of Applied Sciences Constance, Germany (retired)  
former student of Jean Mootz

I will always remember Jean's friendliness, openness and his absolutely amazing knowledge and wealth of interests in technologies which finally also defined my own professional live: electronics, computers and physical sciences in the broadest sense. Visiting him more than once in his home in Luxembourg as a student was like diving into an incredible pool of fascinating technologies he collected under his roof .He charmingly used this environment to inject his own passion into young boy's brains, as I was one at those days.

Go on Jean, there up in the skies: you will surely find friendly souls to charm with divine physics!

## **Claude Baumann**

educator and robotics amateur  
former student of Jean Mootz

### A memento

When we went off to high school at the age of twelve, we were eager to finally meet those professors about whom we had heard so much. (In French-cultured Luxembourg, secondary teachers are called professors.) However, we were quickly disappointed to find ourselves being taught by competent but unspectacular people who just rattled out their lessons, but then we met and fell under the influence of Professor Jean Mootz. Mr. Mootz was a phenomenon, officially a chemistry teacher, but also a fervent radio amateur and a talented electronics technician. Besides his chemistry lab, he had installed a complete electronics laboratory under the roof of the Lycée Classique Diekirch. This laboratory rapidly became the center of gravity for our small group of enthusiasts.

Almost every school break, and certainly each Wednesday after school, we met with Professor Mootz. What made these sessions so exciting was the fact that we could play around with electronics, make tests, solder small devices, and start bigger projects, although only part of what we learned was included in the curriculum. Nothing was planned; every project emerged from the group. During these after-school activities, Professor Mootz never lectured, but he patiently answered all our questions. "What happens if I apply 40V to this 16V electrolytic capacitor?" -- "Try it!" he said. We fetched the DC-source and two wires with alligator clips, and attached them to the capacitor. Then we switched on the power supply... and boom! The capacitor had gone. "Do you understand now? Then clean up the mess!"

Then came the day when Professor Mootz brought an HP-35 calculator to the laboratory. It was one of the very first electronic calculators available in Luxembourg. We were thrilled to be among the first to play with it, feeling like pioneers. The HP-65 followed, the seminal programmable calculator that, interestingly, the user guide called a personal computer. We were exposed to computer programming...

These are only a few vivid recollections that now remind us of a truly great educator, endowed with knowledge, talent and humor; an inspiring innovator, and a life-long friend.

## **Claude Wangen**

physics and mathematics teacher  
former student of the LCD

As a student of the language oriented section at the Lycée Classique Diekirch, I never knew Jean Mootz as a teacher. But because of my interest in short-wave radio and computing, I did occasionally end up visiting the electronics den he had constructed in some hidden corner of the LCD's attic.

Over the years, after his retirement, I visited him repeatedly at his home, asking for his help in sorting out some electronics problem or getting various radio gimmicks to



work properly. Needless to say that he was always willing to help, and the matter on which I had spent hours would typically be sorted within minutes.

I dare say if I've become a science and maths teacher myself, it is to a large extent due to the encouragement he gave : His insatiable curiosity and thirst to keep up with the latest developments and the stubborn unwillingness to accept the word 'Impossible' remain an inspiration.

I was saddened when I heard of his passing, but I feel privileged to have known a man like him!

### **Pierre Joris**

professor at the College of Arts and Sciences, University of Albany, USA (retired)  
former student of Jean Mootz

Very sorry to hear of Jean Mootz's passing — although I hadn't seen him in what will be 50 years, he held a warm place in my memories of high school. I spoke to my sister this morning & when I told her of his passing, she too was sad but also quickly remembered him coming into the girl's school with white mice in his pockets (which my sister loved, while most girls squealed & ran).

### **Nic Kahn**

Dr. med., Larochette  
ancien étudiant de Jean Mootz

Cher Goof !

Voici maintenant 40 ans que tu nous as appris que l'enseignement des sciences pourrait signifier tout autre chose qu'un bourrage de crâne, tant apprécié à l'époque par tes collègues, mais bien au contraire une chose vivante et particulièrement fascinante. Tu as réussi à réveiller en nous la curiosité scientifique et le goût de la découverte en nous montrant bien d'avantage que ce qui avait été prévu au programme de l'enseignement...et c'était bien plus intéressant !

Dans cette ambiance de curiosité et d'expérimentation sont nées, bien sûr, de temps en temps des « bêtises », chacun de nous s'en souvient ; voici quelques-unes parmi tant d'autres :

Ainsi nous avons réussi à fabriquer un explosif puissant dont le nom commence par un « N ». Nous avons fait tourner ton SWTPC 6800 (un des premiers ordinateurs du lycée) pendant plusieurs semaines à la recherche de nombres premiers toujours plus élevés à tel point que la fumée s'en échappait et l'alerte de feu s'est déclenchée au lycée. Et c'est bien grâce à toi que nous avons atterri sur Mars en Ti-59 bien avant tous les autres...Enfin pour notre « Premièresfeier » c'est la mousse abondante fabriquée par tes soins dans ton atelier au grenier du LCD qui a envahi l'ensemble des couloirs du lycée en passant par les escaliers pour sortir par la porte d'entrée principale.

Nombreux sont ceux d'entre qui se souviennent avoir passé une après-midi dans ta maison à Eich qui était bourrée de toute sorte de matériel électronique d'avant-garde, toujours à la pointe du progrès.

Pour nous les années 70 ont été marquées par le début d'une nouvelle ère : celle de l'avènement des premiers ordinateurs. Nous avons été témoin du tout début de cette

évolution formidable, nous avons eu la chance d'être à côté des plus grand pionniers de l'informatique au Luxembourg : Jean Mootz et Francis Massen.

Cher Goof, Merci de nous avoir fait connaître tout ça...Merci d'avoir réussi à faire passer l'étincelle à toute une génération d'étudiants. Ton empreinte reste, nous ne t'oublierons pas.

## **Robert Bohnert**

director of the Lycée classique Diekirch

obituary held at the funeral mass (in Luxembourgish)

De Jean Mootz, de Mootze Jhang, de « Gof » wor e léiwe Mënsch an e beléifte Professor.

Fir eis aner, déi no him als Enseignants an den « Dikrecher Kolléisch » komm sinn, an en net selwer an der Bio oder an der Chimie haten, wor et ëmmer rëm erstaunlech, ze gesinn, mat wéi enger Begeeschterung séng Schüler vu sénge Stonne geschwat. Hien hat och déi Zäit ëmmer Gruppe vu Schüler ronderëm sech, déi mat him no de wäisse Mäiss ausserhalb vun de Schoulstonnen gekuckt hunn, oder mat deenen hien diskutéiert a gebastelt huet.

Hien konnt, bis an den Alter eran, sech formidabel begeeschteren fir alles, wat nei wor, fir all nei wëssenschaftlech Erkenntnis an och all technologesch Kuriositéit, an déi Begeeschterung wor absolut ustiechend.

Dobäi huet hien weder séng Schüler nach séng Kollegen ze spiere ginn, wéi dichteg hien eigentlech wor, wéi e genialen Wëssenschaftler an Techniker sech hannert déer burschikoser Originalitéit verstoppt huet. Hie blouw ëmmer bescheiden, gedëlleg a witzeg, sou datt een sech bei him einfach wuel gefillt huet.

De Jean Mootz ass no dem Stater Kolléisch, dem Athenäum, op de Cours supérieurs an duerno op Stroosbuerg a Paräiss studéiere gaang an huet dunn an de Collation des Grades den Dokter an de Sciences naturelles mat Haaptspécialitéit Chimie an zweet Spécialitéit Biologie gemaach.

Deemols waren awer keng Plazen op, sou datt en zwee Joër laang am Edukatiounsministère fir den Emile Schaus geschafft huet, ier en nom Stage am LGL an am Athénäum, op Dikrech genannt gouf, wou en 32 Joër laang enseignéiert huet, an och a sénger Pensioun ëmmer erëm eng Hand mat ugepakt huet an ënner anerem séngem fréiere Schüler a grouse Frënd, dem Francis Massen, beim Opbau vum Computarium gehollef huet.

An de 70er Joren, wéi déi meeschte Leit d'Informatik nach mat Science Fiction verwiesselt hunn, huet de Mootze Jhang zesummen mam Francis am LCD a fir den LCD mat immensem Asaatz, Imaginatioun a Kompetenz de Computerzäitalter agelaut. Et lount sech, dat um Internet nozeliesen, et ass sou spannend wéi e Krimi.

An ech mengen, de Jhang selwer hätt näischt dergéint, wa mer lo haut hei trotz eiser Trauer, och mat engem Schunzelen, déi Stechwierder gebrauchen, déi fir eis mat him zesummenhänken, wéi Snoopy, wéi eben wäiss Mäiss, wéi Radio an Amateurfunk, wéi Computerguru, wéi Basteler, wéi Gof eben och...

Hie géing wuel haard laachen a jeitzen, op mer se nach all hätten, fir souvill Gedäisch ëm hien ze man.

An dach sollte mer awer och drunn erënneren, datt jiddereen, dee mat him ze dinn hat, gespuert huet, datt hannert déer flotter, origineller, humorvoller, amüsanter an e bësse schrulleger Aart vum Jean Mootz e ganz seriösen, bescheidenen, mee superintelligenten, oppenen an engagéierte Mënsch sech verstoppt huet, dee vill

wosst, deen mat séngem Wëssen net hannert dem Bierg blouw, dee Gesellschaft a Frëndschaft gesicht huet, deen d'Mënschen, séng Kollegen a séng Schüler gär hat, dee säi Beruff mat Iwwerzeegung ausgeübt huet, op dee Verlooss wor, an ouni deen den „Dikrecher Kolléisch“ haut net genä esou wäer, wéi en ass.

Hien huet do ganz vill Spueren hannerlooss a gehollef, eng Atmosphär opzebauen vu Freed um Léieren, um Wëssen, um Fuerschen an um Experimentéieren. Mat him konnt d'Schoul Spaass man, och, an nawell grad, wa vill verlaangt gouf.

Am Numm vun Déngem Kolléisch, am Numm vun all Dénge Schülerinnen a Schüler, Dénge Kolleginnen a Kollegen:

„Adieu, Jean, a merci!“

## **Théo Duhautpas**

lecturer at the University of Luxembourg, co-director of RESTENA  
former student of Jean Mootz

I had the privilege of knowing Jean Mootz as a teacher since 1962 and since the late eighties as a friend and mentor. In those days, setting up a dialup connection to a BBS or the Internet was a very challenging task which needed much skill and patience. The first RESTENA users will remember this exciting period of time. Jean Mootz's know-how and technical assistance was so great that he was considered to be the "Field Engineer" of the RESTENA team and he was even invited regularly to the annual Christmas dinner.

During the last 20 years I visited him every couple of months at his home, which had not changed since my first visit in 1965. The scenario was always much the same: a pre-released software, a new programming language or a circuit setup was up and running. The spectrum of his "Projects" was unbelievably wide and diverse and always new to me, a fact which he of course knew. While this was sometimes difficult for me to admit to myself, it nevertheless encouraged me to catch up as soon as possible. After a pizza at a nearby pizzeria we finished the evening drinking a couple of beers with lively discussions on many subjects.

He was one of the most amazing people I met in my entire life.

The last time I visited him at his home - I needed a software upgrade of a PIC and for that task he had a dedicated PC - was in August 2011 before he left for the Fondation Pescatore. This was 46 years after I picked up my first self-assembly kit from Heathkit delivered to his address, an event which was decisive for my later studies in Electronics Engineering.

We have lost an inspiring teacher, colleague and friend.