

# HOW IT STARTED

## 1. FIRST ENCOUNTER

Almost 30 years ago, in fall 1985, Prof. Charles J. Burstone from Farmington, Connecticut, together with Prof. Birte Melsen from Aarhus, Denmark, gave an orthodontic biomechanics and segmented arch technique course in Milan for the Orthodontic Italian Society (SIDO).

I was a young and unexperienced orthodontist, resident at the orthodontic department of the University of Siena, when I decided to attend this course. I did not know much about the two speakers, definitively nothing about biomechanics, and I had

not the faintest idea that those two speakers would have changed dramatically my professional career and my personal life as well. Even if I was not understanding much of what they explained in those hours, I was just stunned by those treatments that I could not even imagine as possible before. My thought was "If I am an orthodontist, and I think I am a good one, these two are practicing a totally different job".



## 2. AARHUS

I came back to my office and without any real sound background, I started to apply cantilevers and T-loops, realizing that the teeth were moving at an incredible speed compared to my previous experience. The problem was that they were hardly going where I wanted them to go, furthermore, I had so many side effects that I had to stop and take a breath: that was not the way to go. In fact, even if I had taken a lot of notes and I also later bought the video tape of the course, my understanding of what I was doing in my practice did not allow me to obtain good results. I needed more studies, so I decided that I needed to learn that thing that seemed magic to my eyes and that allowed Prof. Burstone and Prof. Melsen to treat those incredibly difficult cases. So less than three years later, in January 1988, I was in the chilly town of Aarhus, Denmark., attending the so called "short-term orthodontic course" of the Aarhus orthodontic department, directed by Prof. Melsen. It was at its second edition (the course is still alive now) and I had many expectations from it. In those three months, I learned many things, but most important I learned how to learn. I had access to a good library and made tons of photocopies to bring back to Italy (for the young people: we had not PCs, Internet or Pubmed to help us). In addition, I met many nice people and most important that woman that when teaching was giving me so many information at an incredible speed to make me feel inadequate. I told her once: "Prof. Melsen, usually after your lecture I have a head ache". Of course, she did not take it as a compliment, but in my heart I was expressing an incredible admiration for her.

## 3. BACK HOME, BACK TO STUDIES

Once back to Italy the people at the orthodontic department of the University of Siena wanted to know what I had learned in three months of course in Denmark. I told them to wait a couple of months: I would have put some order in all the material I had collected in Aarhus and then started a series of seminars.

I was very excited to start my first seminar about the mathematics needed to perform vectorial calculations, equivalent force systems and so on. I would have never imagined that I would have taught it for the following 25 years (and more to come I hope). 15 people attended the first seminar, half of them attended the second one. When I met only two friends of mine at the third meeting, I was disappointed and very sad, thinking that I really did not have any attitude towards teaching. Anyway, these two people convinced me that it was not my fault: most of the people just don't want to deal and struggle with information that seems too hard to understand at once.

However, I decided to interrupt these seminars at the school, merely due to the sad lack of audience. A few months later, one of the two friends of mine came back to me with this idea: "I think your seminars were good, I would like to know the whole story. I have also found a little group the want to know more

about it. So if it's ok with you, we start again, we are going to pay you for your work".

I had never considered before that teaching biomechanics would have been a profession for me, and this was the casual start of a teacher career. Therefore, from that time on I had in my mind two good reasons to learn even more this branch of orthodontics: become both a better orthodontist and a better teacher.

#### 4. MY FIRST PC, A WONDERFUL MACHINE

In January 1990 I was skiing in the Alps and I had an accident: I had surgery to my knee and I could not work for one month. So I decided to buy my first PC to spend my time at home (have you ever heard about 086 and 286?). Well it was a wonderful tool to organize my lectures, start preparing some very primitive diagrams, and something started to take shape in my mind during that year: a textbook to read directly on the computer screen. With the available hardware at that time, it was not possible to think to store photography and digital photography was not available yet, I was just planning to put together text and simple drawings of diagrams to be distributed in floppy disk. I started to read books about hypertexts and multimedia teaching. At the beginning of 1991. I went back to Aarhus. I was proud to have become an invited speaker at the short-term course, and I took the chance to present to Prof. Melsen, now I called her Birte, my project. I was also using plenty of material of the Aarhus Syllabus, and I told her if she wanted to participate as well to the project. At first, her answer was rather skeptical. She told me: "Giorgio, do some work on your own, show me some more material and I will let you know."

#### 5. OUR "BIOMECHANICS" IS BORN

In summer 1991 the two of us signed an agreement. I needed to do all the computer work, but she would review correct and also provide me with clinical material. I was incredibly excited by this opportunity. In October 1992, we presented the project in his first Italian version at the Italian Orthodontic Society Congress. We started to sell "La Biomeccanica in Ortodonzia" on a CDROM but we had also to sell a CDROM reader because virtually no one had a PC with a CDROM reader. From that time on, we had 4 versions of this software in English and the last



one is now multi lingual. We have never ended to add, modify and try to improve its content, and I am quite sure that there have been very few months in which we have not dedicated time to this work. We distributed the first two editions on CDROM, the third edition could be downloaded and installed from the Internet, and the fourth edition is now only online.

What you have now has been the biomechanics textbook in many orthodontic schools worldwide and my companion of a life. The actual project is to involve more authors in this work. We need I think a generation progressive change.

I hope you will enjoy the reading.

Giorgio Fiorelli