School Timetabling from the Stone Age to the Present Day
by John Peck

My original intention was to give an account of the changing and developing use of technology in my teaching career, but this worthy objective was somewhat jeopardised when I read Joyce Knox's excellent article in this series. Thank you kindly, Joyce!
Even though my perspective is that from a secondary school in contrast to Joyce's primary school focus, so much of what she described applies equally to both sectors of education. For instance, technology in the schools in the 1960s was defined by the ubiquitous Banda machine (or a Roneo stencil if one was really lucky!) and not much else. So, in this article, I will confine myself to just one aspect of my work as a teacher - that of a developing interest in "school timetabling." I was first made aware of the mystery surrounding this particular craft when I was teaching in Felixstowe, Suffolk (as a lowly Head of History). A new Deputy Head arrived in school and we soon became firm friends out of school - as a consequence of shared interests in important issues as football, real ale and jokes-in-poor-taste! One of his, main responsibilities as Deputy Head was The School Timetable. Now here I need to give some background information: the school timetable attracted a mystique all of its own. No-one understood how it worked and most Academic Deputy Heads from time immemorial closely guarded the secrets of this enigmatic puzzle. This was further exacerbated by the tendency of these same Deputies to go into purdah for the whole of the Summer Term in order to plan and produce The Timetable - usually by locking themselves in their offices for weeks at a time, leaving the rest of the teaching staff to cover their classes and undertake other sundry duties. You will gather that such Deputy Heads were not the most popular of colleagues!

Anyway, "John the Deputy" persuaded me to assist him in this major undertaking. The first lesson I learned was that it was not necessary to go into a monastic retreat to do the timetable. John and I worked "after school" and during some evenings, followed, of course, by an essential visit to the pub afterwards. Up until this time most timetables used pen and paper (and, most importantly, a rubber) but John bought in a piece of kit called "Pro-Graph". This was a kind of forerunner of more modern technological aids. In very simple terms, it was a large board which was affixed to a wall; it was perforated with whole rows of holes into which coloured pegs were inserted, denoting "staff", "subject" and "room". Its main advantage was that it was foolproof insofar as neither a teacher nor a room could be double-booked, which was always one of the main sources of mistakes when using the pen-and-paper method. And when the timetable was completed, it looked spectacular! However, it also had another advantage - it bamboozled any member of staff who dared question the efficacy of a particular piece of scheduling.
Unfortunately, on one particular day we discovered the system wasn't fool proof after all. John arrived in school early one morning and noticed some anomalies on the part-completed timetable. Why is this History teacher teaching French in a Needlework Room? Why is this Maths teacher teaching Home Economics in a Science lab? The more he looked, the more anomalies were evident. At that moment, one of the cleaning ladies came into his room:
"Good morning, Mr. Knowles. I'm really sorry - when I was hoovering this morning I accidentally knocked the board and several pegs fell on the floor. But don't worry, I put them all back again for you."

My distrust in new-fangled technology dates from that day.

Eventually I moved on from Felixstowe to a large school in Immingham where I spent seven very happy years. Here I was in charge of the Sixth Form and one of my tasks was to help

devise an option-system for "A" Level and sub - "A" Level courses, and then to produce a timetable for them. Neither the Deputy Head in the school nor myself used any form of technology - it was back to the pen-and-paper system, supplemented by lots of coloured card, cut up to fit onto a blank sheet of paper. But gradually I was gaining more skills and knowledge, and becoming aware that a timetable can have a massive impact on an individual teacher's life for a whole year by slipshod, faulty or insensitive scheduling. An important lesson was learned.

My next career move was to a Hull 13 - 18 school where I stayed five years as Deputy Head and where I now had ultimate responsibility for the whole school timetable. In the first two years "technology" didn't feature in this task; instead I learned more about the art of timetabling by reading some (very boring) books on the subject. I also came into contact with Barrie Salt who was Head of South Hunsley School in Melton. Barrie had written a scholarly treatise on school timetabling. I was intrigued by his "system". In a nutshell, it involved creating a blank template of a timetable and then devolving responsibility to departmental heads to do their own staffing and scheduling. The system had many virtues but I soon realised that what might work in a huge school like South Hunsley wouldn't necessarily be suitable in my own school. The benefits were that it encouraged teamwork, lots of discussion and negotiation, and a developing understanding amongst several staff over this timetable mystique.

After a couple of years I was approached by two younger (and ambitious) members of staff, asking if they could help with the timetable. Once again it was a case of leaving the work on the timetable until the evenings when all three of us could meet together. A few cans of beer helped the thought-processes in these twilight sessions! In the 1980s the first computer - assisted timetable programs were coming on the market, promising so much time saving and increased efficiency. We looked at one such software package (I can't remember its name) and gave it a trial run. Anyone with timetabling experience will say that the first 95% of the scheduling process is relatively problem-free, but the last 5% causes most of the stress and heartache, and often leading to whole swathes of the timetable being unpicked to be able to solve knotty logistical problems. The timetable software did just that - it could schedule about 95% but would then declare that the last 5% had to be done manually!

However, one of these two colleagues was a real expert on computer technology and particularly on programming. Whilst we continued to do the scheduling manually (my reasoning being that a computer-program lacked the personal sensitivity and nuances that are so important - knowledge of individual staff, their preferences and proclivities is paramount). One of the main mind-numbing tasks in doing a timetable is transcribing the whole into individual personalised timetables for staff, classes and departments. It is a lot of writing and very time-consuming. Here Richard proved to be a godsend. He devised a unique program that could produce these individual timetables and make them look professional and well-presented. Shame he didn't patent his program - it could have made his fortune.

At this turning-point in technological advances as far as timetabling is concerned, my own involvement came to an end. My next career move was to become a Head (for the next 14 years) and inevitably the timetable responsibility was given to one of my Deputies. Nowadays there are numerous software packages available - highly sophisticated and, no doubt, very efficient. It is inconceivable that anyone these days would revert to the pen-and-paper methodology. Even so, producing a complicated school timetable manually did involve a lot of pleasure (and pain) - it was like solving a gigantic mathematical puzzle - and a huge sense of personal achievement.