

Revolutionising chocolate technology

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Restaurant correspondents rarely get the opportunity to be private detectives but for the past nine months I have been trying to track down Frédéric Bourse, once described to me by a leading London chef as 'such a wonderful pastry chef that I wish I had never worked with him – he has spoilt me for all the rest.'

Since I last saw Bourse in London a year ago I had heard that he was consulting across France and Italy, then that he was giving professional patisserie demonstrations in the US, Canada, Taiwan and Japan. Finally, on his return from a similar trip to Hong Kong, I managed to meet up with him in the small town of Benfeld, thirty kilometres south of Strasbourg in eastern France.

Here Bourse has swapped the hurly-burly of professional kitchens – since beginning his training at Tours aged 16 he has been Chef Pâtissier at Claridge's and The Four Seasons in Milan with stints in Kuwait, Marbella and Istanbul – for a quieter life, at least when he has not travelling. Bourse's working life now revolves around his laboratory in PCB Création which he believes is at the cutting edge of delivering top quality chocolate and pastry design and products to restaurants, hotels and corporate clients around the world.

PCB began 10 years ago with three employees. It now employs over 100 on a 3,000 sq metre site which for hygiene and security reasons is a particularly charmless, windowless, but spotless bunker that will double in size over the next six months to keep up with demand from around the world. In essence, PCB is a design-led chocolate and pastry factory.

According to Pierre Bach, the company's founder, there are two simple reasons for its rapid growth. "The first is that there is now a huge shortage of qualified pastry chefs all over the world and so to keep up with the growing demand our customers – hotels, restaurants, commercial patisseries and traiteurs - use us initially as their R&D department and then as part of their production process.

"And secondly, chocolate and patisserie have become not just hugely fashionable but also very fashion conscious. Some of our biggest clients like Pierre Hermé, Fauchon, La Maison du Chocolat or Lenôtre in Paris now produce collections like designers so we have to produce two new catalogues a year, at Easter and Christmas. And there are so many new ideas going around. We are currently working with Hermé on how to produce a cake that could be eaten in the street as easily as an ice lolly."

It was now time for Bourse to take over and, donning a white jacket and hat while asking me not to divulge any trade secrets, we set off on a tour that was to involve lots of liquid chocolate.

The first stop was their design department which receives outline designs from chefs and retailers such as Maribel Sweet's Chocolate and Shoe shop in New York and transforms them into a state in which modern technology, using edible PVC, can reproduce them more quickly, more efficiently and more effectively than any team of human pastry chefs. Throughout my tour, Bourse kept stressing that not only was modern technology providing the solution for a world short of pastry chefs but that what the most modern machines could produce next door was '*plus fin*', more elegant.

The first half of the workshop next door resembled a chocolate printing press, off which were coming sheets of patterns and designs to go on to the top of chocolate petits fours and cakes in long sheets. Alongside were other machines that produced the bases and lids of the petits fours which PCB's customers would fill with their own flavours. Bourse was quick to point out that this technology not only meant that chocolates could now come in many more different shapes than just triangles, circles and ovals, but that this process was far more economical. "You could make these shapes in the past but you had to start with a large square of chocolate and different tools to pick out the different shapes so there would always be a lot of waste. Now that's not the case."

The second half of the workshop produces finished chocolates, designs for the top and surrounds of cakes more intricate than any professional pastry chef could make, Bourse explained, and the increasing range of chocolates which they are being asked to produce by corporate clients such as hotels and Euro Disney. Bourse showed me with some pride a small chocolate coffee spoon he had just produced which currently only bore his name of which he had high hopes in the promotional field. As we left he subsequently presented me with a chocolate replica, complete with text, of a furred copy of the FT.

On our way to his chocolate laboratory I caught a glimpse of some of the forthcoming designs for this Christmas – traditional chocolate Santas and sleighs and more unusual chocolate puzzles and CDs – and walked through another workshop that manufactures and repairs machines that make and temper liquid chocolate. This had the most extraordinary aroma: of the oil and grease that one normally associates with a workshop but here overlaid by the thick, pungent aroma of liquid chocolate coursing through the machines at exactly 61 degrees centigrade.

Once in the sanctity of his laboratory and surrounded by a patissier's normal tools of the trade – electronic scales, a Paco Jet (a machine which intensifies the flavour of ice creams and sorbets), stoves, a microwave, banks of fridges and recipe books – Bourse was only too keen to show me what he has been working on for the past six months.

As he opened the fridge he explained, "As you know you cannot keep chocolate in the freezer because it attracts mould due to the humidity. So we have created a new process that uses chocolate and cocoa butter which is stable in the freezer." With this Bourse pulled out from the freezer a sheet of 70 chocolate and cocoa butter bases which will allow pastry chefs the world over to produce quite easily their own ice cream-filled petits fours. "Chefs will just be able to take these out of the freezer, fill them with their own ice cream mixture, put them back in until they are ready to take out and serve. It's something Escoffier invented at The Savoy and in his day it occupied three chefs for one whole day. This process will make it ten times faster than any chef can do at the moment."

Bourse also believes that these bases can be used for excellent savoury canapés as he has filled them with mixtures of foie gras and figs, salmon and green apples and crab and guacamole to great effect as their inherent richness is cut by the cool, bitter texture of the chocolate - as practised widely in Mexican cooking. But in assembling these new ranges Bourse appreciates that while the technology has vastly improved, the basic principles of what he was initially taught as a student in Tours a generation ago still hold true. "I remember my most influential teacher explaining that the great combinations of flavours and ingredients had all been created and that if we wanted to succeed we had to travel the world to experience them and then work hard to refine them, to make them even better."

In this context, Benfeld may be a surprising but wholly logical place in which to have finally located one of the world's finest patissiers..

- Bourse subsequently directed me for dinner to **Le Bistro des Saveurs** run by Helene and Thierry Schwartz (03.88.49.90.41) in the hugely atmospheric small town of Obernai. Their modern approach, typical Alsace generosity and considerable culinary skill resulted in one of my best meals in France for some time.