

Spotlight

Investment and determination: a winning combination

Peter Gange has made a considerable investment in setting his lab apart from the pack: *The Dental Technician* meets the man behind PGZ

OVERHEAD a red kite weaves complex circles in the air and below its flight clusters of trees rustle in a gentle breeze. In this rural Buckinghamshire setting, the St Dunstan's Dental Practice is housed in a charming period building that dates back to the early part of the 19th century.

In its time this weather-boarded classic has been home to, among others, a butcher's that had an abattoir at the back where the car park is now, a restaurant, a design studio and a hair salon. Now the building has been carefully refurbished to provide a private dental surgery for Dr Nick Brownlow as well as laboratory space for what may be one of the most advanced technician studios in the UK.

Here Peter Gange, aided by his colleague Adrian Moulder and assisted by Peter's parents Les and Anne, has created a fast, incredibly accurate and fully CAD/CAM laboratory, which is perhaps the first such in the UK.

This technology has been a long time coming and has taken years of experience to develop. Now in his late 40s, Peter is the first Gange for six generations to eschew a career in the armed forces. His choice of profession came about when, as a fifth former, he skived off his lessons to attend a careers advisory day at his school and got talking to a man who was sitting quietly alone in the corner of the hall. That man was a dental technician and the conversation they had inspired Peter with the idea that he had finally found his calling.

Peter then got his qualifications in order, but first asked his father – an aircraft engineering instructor with the RAF – if he should follow the family

tradition and join one of the armed forces. His father told him he could but only if he did so as a member of a dental team, and he even went so far as to take Peter to the Institute of Dental Health Training (IDHT) at the Halton training centre to get him some solid advice about his chosen career.

His mind made up, Peter became apprenticed to Richard Owen and Tony Byrne at Rowen Dental in Chinnor, Oxon. It was 1978 and he was 17. His experience in the lab was reinforced by day release formal training courses at the South London Dental College in Tooley Street, which he completed in 1982. He then took two years of advanced prosthetics education, which resulted in him becoming head of the Rowen Dental crown and bridge department.

To this day he looks back on his time at Rowen as the foundation of his success, and he counts Richard and Tony as his principal mentors in all things dental.

But Peter needed more help with his business acumen. After he set up in partnership with the Rowen's chrome and prosthetics manager at the end of the 80s to open a full service laboratory in High Wycombe, everything seemed, at first, to be rosy. With nine staff and a busy order book, Peter could feel confident that his future was sound – that is until 1990 when his business partner upped sticks and moved to Greece, leaving Peter firmly in the mire!

He knew his stuff in the lab but he needed help to sort out exactly what was happening when it came to the finances and developing his company business model, and it was here that his mother Anne came to his aid. She sorted out the paperwork, got the finances on stream, created a business development plan and even made the coffee. Along with husband Les, she also made sure that there was enough money in the coffers to pay the wages.

Building a dream practice

By the latter part of the 90s, Peter was in a sound enough business state to begin talking to a dentist friend about the possibility of moving out of High Wycombe to the country and building a dream practice.

Together they planned a centre of excellence with good parking where private patients could be received away from the fuss and rush of the urban environment, in a surgery that reflected calm efficiency and taste. It would also house a laboratory that could be visited by the patients where they would learn more about the choices



Peter in his workshop.

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A modern take on Edwardian style: Dr Nick Brownlow's surgery.

available to them and thus make more informed decisions.

In 1999, Peter and Dr Nick Brownlow moved into their new premises in Monk's Risborough and began the process of realising their dream. The resulting building is invitingly filled with artworks and furnished with comfortable sofas and tasteful rugs. The décor is a modern take on Edwardian styling and the imagery leans heavily in the direction of architectural chic.

Patients are welcomed to the surgery as if they were keeping a social appointment; in fact many have become friends over the years.

Peter sold half his lab in High Wycombe before moving to Monk's Risborough and brought Adrian Moulder (who has been working with Peter since Adrian joined Rowen as a 17-year-old apprentice 25 years previously) with him.

Apart from the plaster room, the lab premises are open to visitors and so have slightly less of the usual clinical, workshop air than one might expect, but the work that gets produced here is of the highest order. A mixture of private and NHS patients are serviced with crown and bridgework, plus dentures if the only alternative would be to send the job to somewhere that "fails to have the focus needed to provide the required quality".

Upping the grade

More recently, Peter has started researching ways to "up the grade of crown quality". He knew that patients would come to prefer the more natural, harmonious look and feel of porcelain and zirconia crowns in their mouth, and he saw the growth potential in the marketplace.

This led him to look at 3M Espe's Lava system because he knew he would get the support he needed to properly develop his technical skills with the new materials. He said: "People react very positively when you tell them that a product has been brought out by 3M – they all know about 3M Post-it notes and use them. Patients like the idea of having a product as successful in its field as a Post-it note in their mouths."

Another arrow was added to Peter's quiver of skills when 3M invited him to attend a seminar presented by marketing guru Ashley Latter. He was the only one to raise his hand when Latter asked for a volunteer that was willing to help with his demonstration. Off-stage, Peter was astonished how fast he could be taught the memory skills and presentation techniques needed for the demonstration and that whetted his appetite for more.

He booked onto an Ashley Latter marketing skills course and on arrival found himself to be the only technician in a room filled with dentists! He quickly started making friends and began networking among the 19 potential customers, and made sure before the course was over that each one of them had one of his marketing packs.

A lesson learned that day was an important one: "There is no point giving your details out to potential clients if you don't get theirs in return; they all had my prices and I'm sure just compared them with their existing suppliers and stayed where they were.

"Without me adding a follow-up call or visit to cement the hopefully positive impression they got from me during the course, my marketing pack just ended up in the bin."

A hard lesson well learned, and since then Peter has regularly been invited to lecture about the Latter marketing techniques, sometimes presenting with industry specialist and DT contributor Laurence Grice-Roberts.

Laurence has a background with 3M Espe but for some time now has been working hard to raise the profile of his new employer the Bristol Crown Company, as well as promoting its products. It was to these that Peter turned when he chose to start looking at the uses of different grades and densities of medical zirconia – and it is thanks to the Bristol Crown Company and its MD Tim Brothers that Peter is now able to offer his own brand of material – PGZ.

He said: "PGZ is a high- to medium-level



This open scanner can work with any system on the market.

material that is not only perfect for high quality aesthetic crowns but is also priced to appeal to patients that want the benefits but don't like the prices of some alternatives. Lava works alongside it as a premium product in the range, and ultimately PGZ means that we can offer the professional more choice on price without compromising quality."

He then went on to explain how PGZ, as a dual-pressed zirconia, offers all that could be needed in the way of a high-end aesthetic prosthetic solution without demanding high-end prices, all with a five-year guarantee on the materials and with no unsightly black margins once fitted. It saves both money and time, and even when done on a lab-to-lab basis it saves staff costs and overheads – "every box is ticked".

Profound influence

The influence of the Bristol Crown Company has proven even more profound in other ways, in that when it invited Peter to attend a weekend course called *Computer aided design for dental technicians*, it introduced him to Delcam – a leading software specialist in Europe – and that in turn led to him investing in a state-of-the-art, generic "open" scanner.

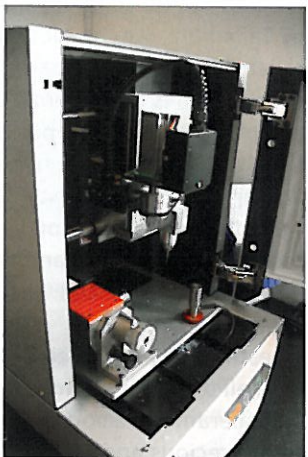
This technology has now had all of its glitches ironed out and it means that Peter's scanner and computer software can communicate with any other CAD/CAM technology on the market, and as a result he is not tied to only dealing with milling centres that have the same system as him, and *vice versa*.

Emptying his pocket a little further, Delcam was also showing a Roland two-axis jewellery-milling machine which Peter instantly realised could be used for his wax work and brought one into his scanning and computer room. Bench-top based and with quite a small footprint, this new Roland technology is what makes Peter Gange Crown and Bridge Ltd the first and perhaps only laboratory that uses CAD/CAM across all of its work.

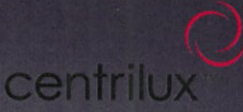
As a dentist fitting the end products, Nick has certainly seen the benefits in improved precision arising from the wax original being machined in the new Roland. Peter said it has "even helped bring up the quality of the dentist's preps".

He is able to make allowances of 0.3mm and 0.5mm in the coping and

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This two-axis Roland milling machine is used for all the lab's wax work.

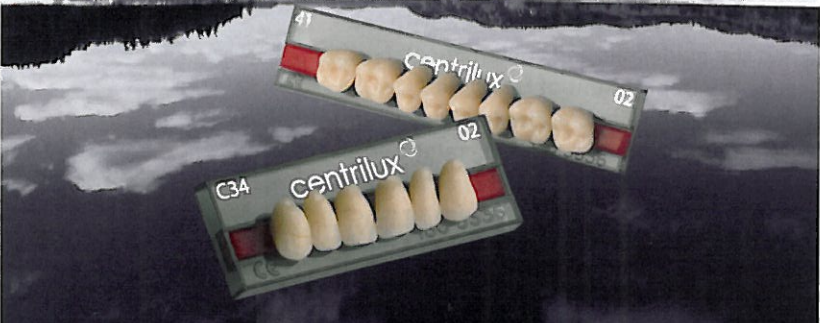


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Focus: Investment Materials

John Winter & Co

JOHN Winter and Co can supply a variety of investments from the German manufacturer Shera, to suit all the requirements of dental technicians.

The company offers Shera Cast for the chrome technician; this is described as a robust cobalt chromium investment that can be used for both the rapid burnout and conventional technique.

Smooth, hard models can be produced from either silicon or gel duplication. Shera Cast produces castings with "a precise fit and exceptional surface detail", says the firm. It is available in 50 x 400g sachets, 8 x 2.5kg sachets, and 100 x 200g sachets.

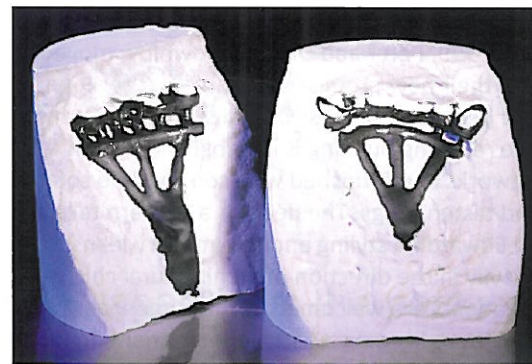
Shera Fina 2000, it says, is a very high quality universal investment which is very well suited to producing precise fitting castings such as implant work.

Suitable for both rapid burnout and traditional burnout methods, it can also be used for the pressable ceramic technique and is available in 100g

sachets (x 60) for this process (also available in 50 x 60g sachet and 38 x 160g sachet).

All Shera investments use the same expansion liquid, which is sold separately, available in one-litre or five-litre containers.

● **John Winter & Co.:**
telephone 01422 364213.



Spotlight

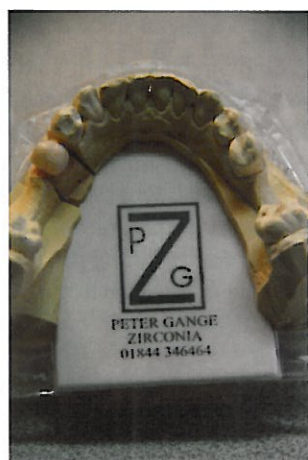
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make up a full wax restoration in the machine. He can then build a polished gold crown digitally and send it to the dentist or lab by e-mail to check that the prep is okay, or even send the digital image pre-design for approval prior to cut.

He explains that it allows the dentist a better relationship with the prosthesis and more involvement in the process.

However, as has so often proved the case, these ongoing advances in digital technology have made a human skill redundant. If a lab chooses to use Peter's wax milling service for its speed and precision, it will not need to pay a technician to do it in-house.

Peter sees that as an opportunity to develop such a technician's skills into more lucrative areas, to the benefit of both the technician and the lab's future income. (He pointed out that the Roland is only used for wax; his zirconia work is milled in Bristol on heavy and more stable machines.)



Happy but moving on up

Peter is enjoying his current lot: he has fewer staff, less hassle and a better return on his time in the lab. Thanks to his investments he is now able to look at moving even further up the quality scale when supplying aesthetic prosthetics in private dentistry, plus he can turn his NHS work round faster and more accurately.

Sometimes he finds it enjoyable to think back to the fifth former he once was, bunking off lessons and attending a careers day that he shouldn't have been at, and then looking at where he is now, with his own busy lab, happily married and with a horse-mad daughter.

"I can't explain how important Nick's support has been," Peter explained. "He has helped give me 11 years in which to research and develop the cutting-edge dental technical skills and tools, which – aided by Laurence Grice-Roberts and Tim Brothers – have put my lab into the position it now enjoys.

"I have been allowed enough leeway to think beyond the guidelines and constraints imposed on us by the Department of Health via registration to the General Dental Council and thus set my own agenda, allowing me to 'go that extra mile' with service and quality. I can look beyond the negatives that I hear so much about to the real possibilities of my craft – and I love it."



Adrian has worked with Peter since he was 17.

● For more information about PGZ and the services on offer, e-mail peter.gange@btconnect.com.

Metrodent

METRODENT is agent for the Bego range of investments including a range of Co Cr partial denture and crown and bridge materials.

Wirovest is a phosphate-bonded investment material for Co Cr partial dentures. Metrodent says it has a very high expansion and model hardness achieved with the help of BegoSol mixing liquid, and when mixed with water (for pouring over model), Wirovest has a significantly reduced deflasking hardness. Processing time is approximately three minutes at 20°C.

It comes in 45 x 400g, 4 x 4.5kg and 15 x 400g.

Customers can save over 20% on Wirovest/Wironit Co Cr alloy bulk packs.

Bellavest SH is a shock heat or conventional precision crown and bridge casting investment, allowing the technician to cover the entire spectrum of dental alloys (except titanium).

Outstanding casting results are achievable with non-precious alloys, such as Wirobond C, Metrodent says, and it is also suitable for precious-metal alloys and pressable ceramics. Processing time is approximately five minutes at 20°C. It is available in 30 x 160g and multipacks of 200 x 60g plus three litres of BegoSol.

● **Metrodent: telephone 01484 466701.**



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Benefits, the company states, are: efficiency – "fast burnout", pioneered by Talladium, wax to metal in 30 minutes, and quick and easy divesting; reliability – precise expansion for a plug-in fit every time; consistency – every batch is CDT approved, and there are 28 quality control checks to ensure a perfect fit; superior quality – envelopes are flushed with nitrogen for ultimate freshness, and ceramic fillers provide ultra-smooth castings and pressings; and versatility – use small to large rings with confidence, get the additional expansion you need for difficult alloys, can be used with any metal on the market, and fits can be customised.

1700 Casting Investment can be used with all crown and bridge gold, ceramic precious, semi-precious and non-precious alloys.

Galaxy Universal

