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Private Dentistry
PROMOTING EXCELLENCE IN PRIVATE TREATMENT

The Harley Street Centre for Endodontics

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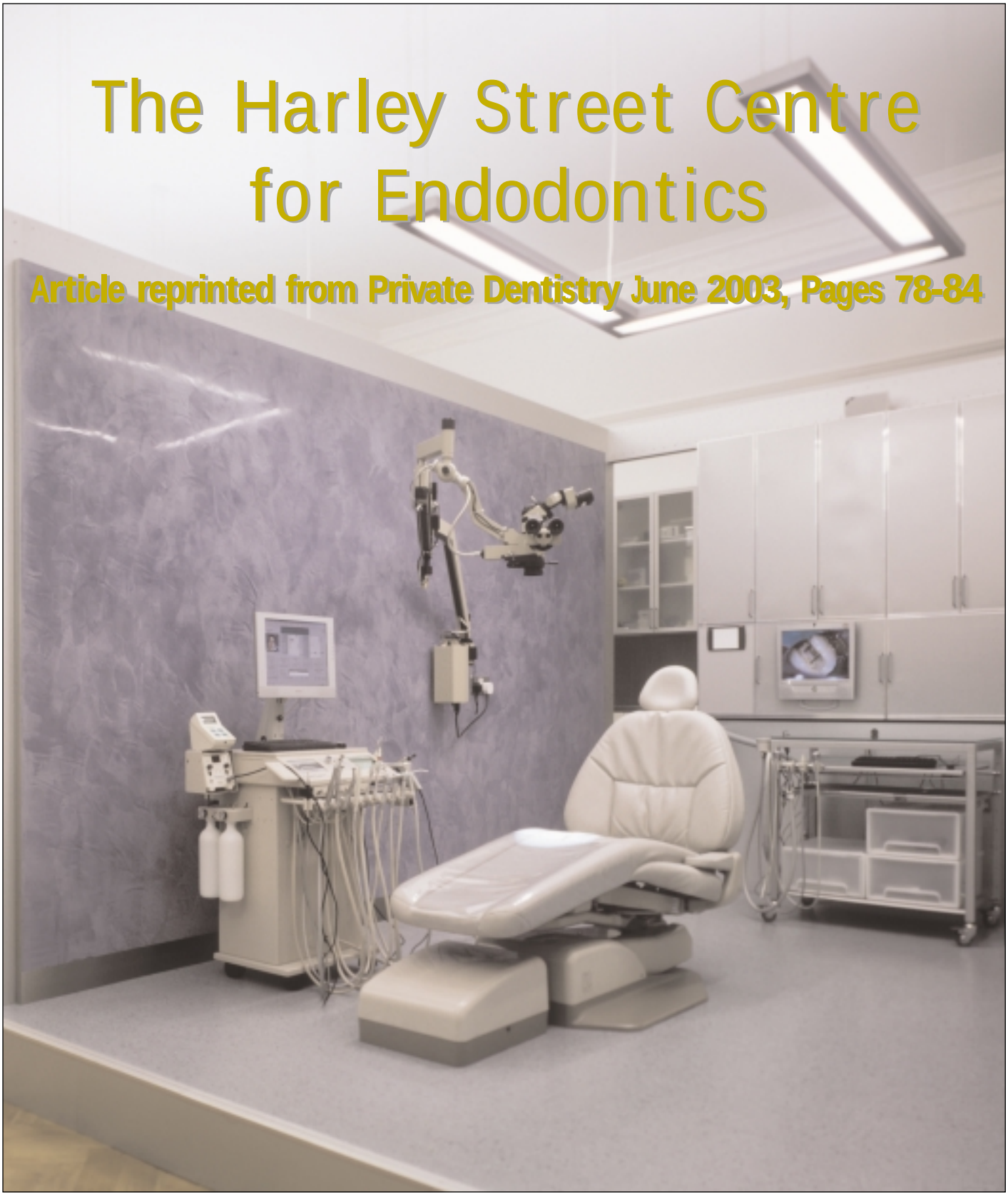


HOW I DID IT

JULIAN WEBBER WANTED TO COMBINE EXCELLENCE IN DESIGN AND OPTIMUM WORKING CONDITIONS FOR HIS NEW PRACTICE, AS HE EXPLAINS

Julian Webber is the director of the Harley Street Centre for Endodontics, editor-in-chief of *Endodontic Practice*, editorial adviser to *Private Dentistry* and former president of the British Endodontic Society. He is recognised as an expert on rotary instrumentation techniques as well as endodontic retreatment utilising the surgical operating microscope

The Harley Street Centre for Endodontics at 121, Harley Street opened in October 2002 after over 12 months of planning and building.

The Centre built within a Grade 2 star listed building was designed by Richard Mitzman, retired dentist and sculptor and now an innovative 'minimalist' architect.

Having travelled extensively in the last 10 years to many centres of endodontic excellence and having seen the ideas of some of the worlds leading endodontists my goal was a facility incorporating the best in technology, fully computerised and completely paperless. A facility that reflected ergonomic design and an environment where not only would patients feel relaxed but also where staff and endodontists could work in a stress free manner.

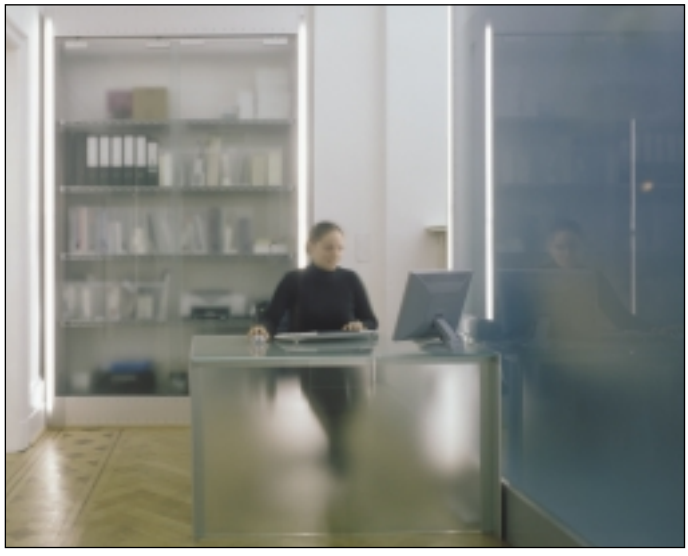
Creating a modern endodontic practice let alone a dental practice within the confines of a Grade 2 star listed building proved to be a very tall order. Imagine such an environment placed into Kenwood House in Hampstead in North London. Very few buildings in the UK are star listed. 121 Harley Street happened to be one of them!

Many of the original features of the first floor rooms had to be maintained to satisfy the requirements of English Heritage and the Historic Buildings Department of Westminster City Council. Very little subdivision of large rooms, no full height partitioning, the ability to appreciate the spatial quality of the rooms (especially the ornate ceilings) from any aspect, no removal of beautiful Adam's marble fireplaces and the requirement to make those fireplaces a feature of the whole design were challenges that required considerable design and architectural skills. Richard Mitzman certainly rose to that challenge!

THE CONCEPT

Efficient endodontic office design requires operatories no more than approximately three metres by four metres in area. Access into the operatories should be from the rear with dual openings for endodontist

Figure 1: First impression: bright and spacious and very different



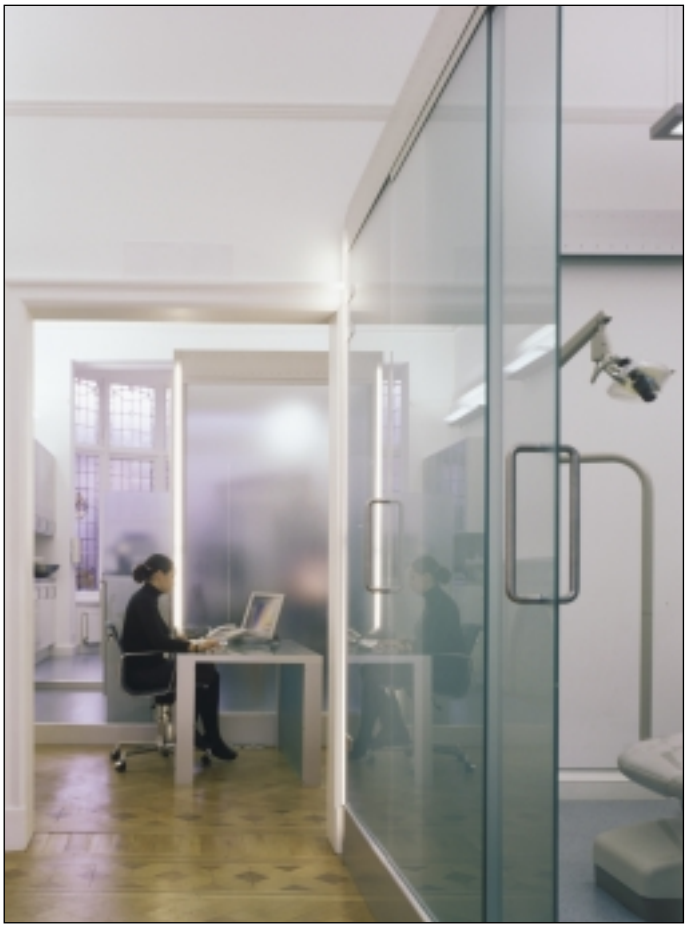


Figure 2: Glass is a considerable feature of the centre

and assistant. Where possible, front access for the patient ensures no movement through staff or sterilising areas.

Each operatory should have its own microscope - preferably wall or ceiling mounted, digital X-ray unit, access to computer screen, keyboard and mouse for both assistant and endodontist and a dedicated delivery system with every gadget for the endodontist in 'reaching' range. The assistant should work within her 'circle of influence' with the ability to hand instruments to the endodontist with little movement away from her assistant binocular at the microscope.

A paperless endodontic office requires a sophisticated software package with networked computers to each operatory and the reception workstation. Digital X-rays should seamlessly integrate into the endodontic software programme with all patient records accessed from any computer terminal. 24-hour internet access is also required to receive and relay information between referring dentists, patients and endodontists as well as the opportunity to receive back up and support at any time from a remote server.

In addition, the assistant should be able to access the sterilising areas without having to move with trays in and out of the surgery and conversely the surgeries should be stocked with sterile items directly from the sterilising areas.

THE DESIGN

On entering the Harley Street Centre for Endodontics for the first time, one is immediately struck by a feeling of brightness and spaciousness, confronted by glass screens, glass doors and a glass reception area (Figures 1 & 2). Glass is a considerable feature of the centre and produces a considerable 'wow' effect as one realises that a very modern facility exists within a beautiful set of rooms where the original aspects such as decorative plaster work, marble fireplaces and stained glass windows are very much in evidence (Figure 3).

The facility occupies approximately 100m^2 of floor space, most of which is the original 18th century wooden parquet. The three operatories measuring approximately four metres by three metres are built into aluminium 'pods' (Figure 4). These are supported on raised floors that accommodate all essential services. The brushed aluminium pods are built from framework components rather like a 'Meccano' set. Within the framework, electrical components, computer cables and air conditioning pipework can all be hidden. Ambient lighting is also hung from the framework whilst feature lighting can be incorporated within it (Figure 5). The

Figure 3: Decorative plasterwork, marble fireplaces, and stained glass windows are very much in evidence

Figure 4 (above): Operatories are built into aluminium 'pods' supported on raised floors

framework is approximately 2.5 metres high and open to the ceiling thus ensuring full view of the decorative plasterwork that exists in many parts of the facility (Figure 6).

The operatories themselves are extremely minimalist in that no real dental cabinetry exists. They feel spacious and bright despite their small dimensions because other than the microscope hung from the wall, there is only an A-Dec radius chair, X-ray and a dedicated endodontic delivery unit (Figure 7). At the rear of the operatory is a storage or steri-wall of IKEA cupboards faced in aluminium laminate which house items of surgery equipment stored on pull out trays (Figure 8). In front of the steri-wall is a glass shelf which houses a glass-topped mobile trolley. The trolley has been modified to deliver suction and air accessible to the assistant and provide additional storage in 'Muji' task bins for disposables and additional instruments (Figure 9). When any item within the steri-wall is to be replaced, access to it is gained via the sterilising area, which is immediately behind (Figure 10).

There are no sinks in the operatories. Hands are washed, scrubbed and gloved in the sterilising areas. Wearing rubber dam patients do not need spittoons to wash out their mouths after treatment. All this further enhances the minimalist approach.

The Carr Cart

Endodontic technology has advanced so rapidly that it has

Figure 5 (below): Framework components with built in lighting

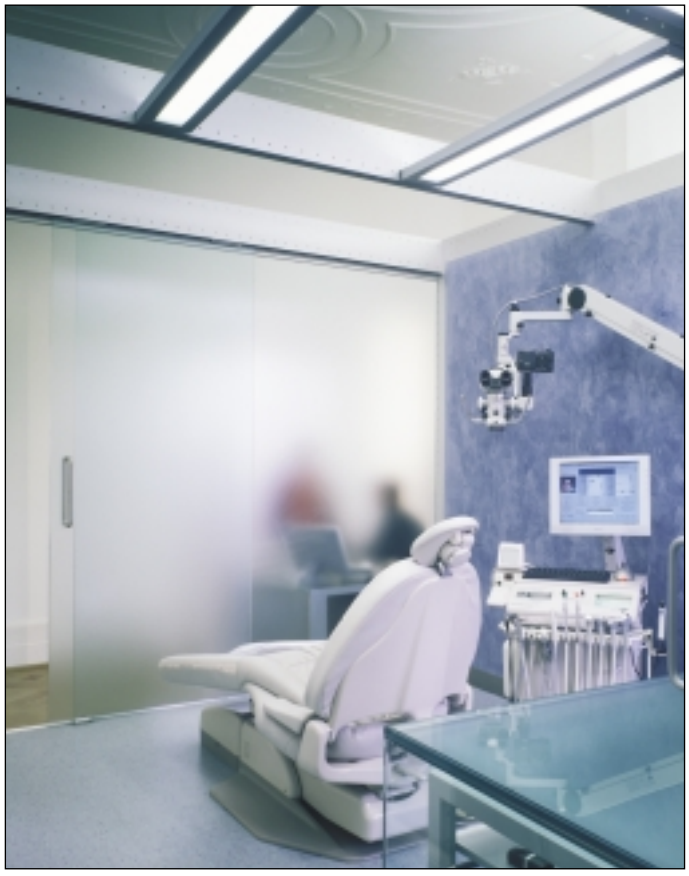


Figure 6: Framework open to the ceiling ensuring full view of decorative plaster work

Figure 7: Minimalist operatory, spacious and bright with microscope, chair, X-ray and delivery unit. No cabinets are present

Figure 8 & 9: Steri-walls closed (above) and open (right). Glass shelves with glass trolley and additional storage bins

become almost impossible to integrate all the equipment into the surgery environment without considerable 'clutter' which creates a disorganised image. The Carr cart designed by Gary Carr of San Diego, California, one of the world's leading endodontists and built by ASI of Denver, Colorado is a self-contained unit housing every item an endodontist would require all with one foot control. The cart can be customised with key components placed to one's own specification. At 121 Harley Street, each cart has an apex locator, system B unit, Bien Air high speed electric motor, high speed handpiece, ATR motor and handpiece, Satelec P5 ultrasonic unit, heated EDTA and NaOCL irrigators, three stropko syringes, curing light and Obtura gutta percha delivery unit. With a computer monitor attached, the endodontist can access and input patient information into the computer programme via a mouse, keyboard and/or graphics tablet (Figure 11).

Seated at the microscope the endodontist is able to reach out, pick up, use and return each item with little or no head movement (Figure 12).

The Digital Office (TDO)

TDO, designed by Gary Carr's company, DogBreath Software, is a fully integrated endodontic programme incorporating digital X-ray, patient notes, records, treatment information, appointment scheduling, billing, referral reports, letters, financial information and patient education. The programme stores all X-rays (Dexis UK) and images, both still and video, captured from the microscope. In the image organiser module one can categorise topics and store the relevant images, a facility that considerably simplifies the preparation of lectures.

Any image (including the patient's passport size photo) can be printed onto photographic quality paper and incorporated into letters and referral reports for the general

Figure 10: Behind steri-wall is the sterilising area. Operatories (to the left) are serviced here with sterile items

Figure 11: The Carr cart

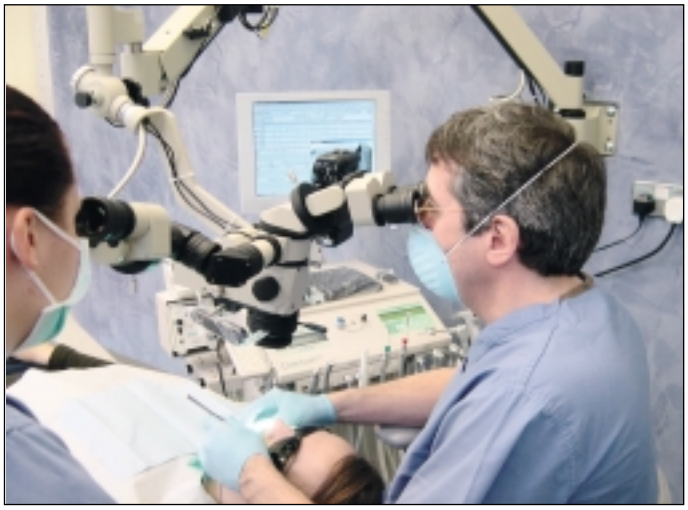


Figure 12: Endodontist and assistant seated at the microscope

practitioner. Furthermore, total computerisation ensures that the dissemination of information to patients and referring practitioners is instant once the case is completed and can be sent by mail, fax or electronically.

All operatories and reception are networked linked. Access to TDO within the operatories can be achieved by both the endodontist from the Carr cart and the assistant who has her own keyboard, mouse and monitor within her 'circle of influence' (Figure 13). As the patient leaves the operatory and returns to reception, the endodontist and/or the assistant has already sent information to the front desk regarding appointments, prescriptions and billing. The centre also has its own internal email system with all areas in communication.

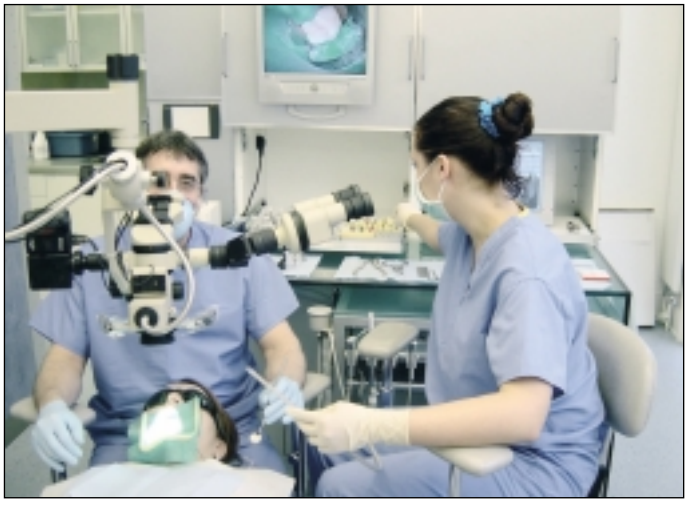
From a personal standpoint, I have found the move to a paperless office as one of the most wonderful innovations in my practising career. There is no way I could go back to paper records.

In December 2002, Dr Trevor Lamb joined the team at the Harley Street Centre for Endodontics bringing to it over 14 years experience running his own practice limited to endodontics in Johannesburg, South Africa. He is a welcome and valuable addition to the UK endodontic scene.

The Harley Street Centre for Endodontics is a remarkably relaxing environment in which to work and have treatment - a beautiful but modern design within a historic building. The patient response is one of complete astonishment and amazement and they are genuinely impressed. Above all however, I have finally fulfilled

For further information on the Harley Street Centre for Endodontics, telephone 020 7935 6393 or email info@julianwebber.com

Figure 13: Endodontist and assistant seated within her 'circle of influence'



FURTHER CONTACT DETAILS

ASI Medical Inc : 14550, E Easter Avenue, Suite 700, Englewood, Colorado 80112 - 4272, USA.
Tel : 001 303 766 3646

DogBreath Software Inc. 6440, Lusk Blvd, #D-110, San Diego, California, 92121, USA
Tel: 001 858 558 3666

Dexis UK : 70, Grand Avenue, Worthing, West Sussex. BN11 5AD
Tel: +44 1903 502256

DP Medical Systems Ltd (Global microscopes): Merlin House, 46, Oakcroft Rd, Chessington, Surrey, KT9 1RH
Tel: + 44 20 8391 4455

Carl Zeiss Ltd, (Zeiss microscopes): PO Box 78, Woodfield Rd, Welwyn Garden City, Herts AL7 1LU
Tel: +44 1707 871200

Richard Mitzman Architects, 47 Primrose Gardens, London NW3 4UL
Tel: +44 207 722 8525