A comprehensive approach to problem solving in esthetic dentistry involves representation of several disciplines to redefine complications outside normal boundaries and reach solutions based on a new understanding of complex situations. The coming together of diverse minds representing varied backgrounds can inspire new benchmarks for esthetic dental treatment. However, such an approach can be costly and difficult for obvious reasons. Practitioners today are therefore encouraged to expand their vision by learning more about disciplines outside their field of practice. Professionals highly focused on one field remain necessary, but those who have a comprehensive vision and who seek collaboration and continuous knowledge are most likely to succeed.

Understanding limitations—those of the materials and techniques we seek to employ and of the particular situation at hand, and considering our own limitations as well—is more vital than knowing the success rate of a given treatment approach or plan. In modern dentistry, failures are potentially catastrophic, and their repair is stressful, costly, and painful for the patient as well as the technician and dentist. When the limiting factors are carefully analyzed, failures can be anticipated and prevented, thus being a dynamic opportunity to expand the frontiers and strategies for esthetic dental treatment planning. Although this learning exercise requires commitment, hard work, and perseverance, it leads us to develop a different mindset, fostering an enhanced inner resilience that nurtures success.

For 35 years, *Quintessence of Dental Technology* has been a unique source of inspiration, with articles presenting a benchmark for what is the epitome of esthetic dental rehabilitation. In this commemorative issue, all articles were carefully selected to salute the reader with the finest examples of novel approaches for treatment planning and for mastering the influence of color, light dynamics of esthetic materials, communication, photography, materials science, dental composition, peri-prosthetic connection, tooth preservation, and requirements for advanced esthetic treatment. Please join me in relishing the inspiration generated by this delightful collection of artwork.

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STATE OF THE ART

Achieving Excellence in Smile Rehabilitation Using Ultraconservative Esthetic Treatment: A Multidisciplinary Vision
Victor Grover Rene Clavijo, DDS, MS, PhD/Paulo Fernando Mesquita de Carvalho, DDS, MS/Robert Carvalho da Silva, DDS, MS/Julio Cesar Joly, DDS, MS, PhD/Luis Alves Ferreira, CDT/Victor Humberto Orbegoso Flores, DDS, MS, PhD

Reproduction of Natural Vivid Appearance in Porcelain Restorations Part 2: The Essence of the Internal Staining Technique
Naoto Yuasa, RDT

Fluorescence: Clinical Evaluation of New Composite Resins
Fernando Rey Duro, DDS, MS/Joana Souza Andrade, DDS, MS/Sillas Duarte, Jr, DDS, MS, PhD

Smile Reconstruction: Esthetic and Functional Rehabilitation of a Patient with Dentinogenesis Imperfecta Using Lithium Disilicate Glass-Ceramic
Oliver Brix, MDT/Daniel Edelhoff, CDT, Dr Med Dent, PhD

Micro and Macro Dental Esthetics: The Key to Smile Individualization
Ivan Contreras Molina, DDS, MS/Cláudia Ângela Maziero Volpato, DDS, MS, PhD/Luiz Narciso Baratieri, DDS, MS, PhD

Visagism: The Art of Dental Composition
Braulio Paolucci, DDS/Marcelo Calamita, DDS, MS, PhD/Christian Coachman, DDS, CDT/Galip Gürel, DDS, MS/Adriano Shayder, CDT/Philip Hallawell

Porcelain Buildup Inspired by Nature
Domenico Cascione, CDT, BS/Tzur Gabi, DMD/Jack Goldberg, DDS/Aiireza Moshaferinia, DDS, MS, PhD/Marnaly Reshad, BDS, DDS, MSc

Customized Treatment for Esthetic Success: A Case Report
Stefano Inglese, CDT

Chipping Occurrence in Zirconia-Based Prostheses
Francis Cunha Lima, DDS/Luiz Narciso Baratieri, DDS, MS, PhD/Renan Belli, DDS, MS, PhD

Cover photograph by Dudu Medeiros
The wax-up of the final restoration was fabricated on the modified master cast (Fig 15). Six laminate veneers were injected with a high-translucency LDGC ingot (IPS e.max Press, Ivoclar Vivadent). A careful divestment process was carried out in two steps: rough divesting with polishing beads at a pressure of 4 bar (60 psi) and fine divesting with the same material at 2 bar (30 psi). Sprues were cut off using a diamond disk. Any morphologic corrections and marginal adaptation were performed, and the veneers were adjusted on the solid master cast. Marginal adaptation was checked on the sectioned cast.

The restorations were stabilized for occlusal adjustments, and confirmation of the anterior guidance was obtained in the wax-up. Final anatomy and morphology were also determined at this time (Fig 16a).

With the final morphology defined, stains were applied to achieve life-like characteristics. For example, blue stain was used for the incisal edge and interproximal areas, while white stain was used for the mamelons. The veneers were then baked. Glass powder was used to protect the stained surface, and superficial gloss was applied using a rubber wheel and pumice powder. The thin veneers were checked again in the master cast and delivered to the clinician (Figs 16b to 16f).

Figs 15a and 15b  Master cast with the final wax-up.
Figs 15c and 15d  Wax sprues in position for the investing procedure.
Fig 16a Laminate veneers adapted to the master cast before staining and glazing.

Figs 16b to 16d Final restorations on the solid master cast after polishing.

Figs 16e and 16f The final veneers were kept very thin.
State of the Art
Today, esthetic restorative dentistry can offer smile rehabilitations using a conservative approach with minimal removal of sound dental structures. The aim of this article is to demonstrate a multidisciplinary, ultraconservative method of restoring the harmony of the smile.

CASE REPORT

The patient was extremely embarrassed of her smile, resulting in shyness and minimal social interaction. The initial clinical exam revealed diastema, congenitally missing maxillary lateral incisors with the canines located in the lateral incisor positions, and the primary maxillary canines still located in their original positions (Fig 1). These aspects created not only esthetic deficiencies, but also malocclusion. Therefore, a multidisciplinary treatment was suggested to restore both esthetics and function.

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and in groups of three in the posterior and anterior regions, respectively. All wax copings were pressed according to the manufacturer’s guidelines. Anterior copings were pressed with IPS e.max Press MO 0, while posterior teeth were pressed with IPS e.max Press LT A2. After pressing, divesting, and trial placement on the master cast (Fig 15), the material’s precise rendering of esthetic details and homogeneity are evident.

The anterior copings were shaped similarly to the provisionals by using a silicone key and individually layered IPS e.max Ceram (Fig 16). Figure 17 shows the finished, as yet unpolished anterior crowns in an

Fig 15 After placement of the copings on the master cast, only small details need to be corrected.

Fig 16 The posterior restorations were pressed with IPS e.max Press LT, and the anterior copings with IPS e.max Press MO 0.

Figs 17a and 17b Homogenous and accurate results after pressing.
unsectioned solid cast. Incisal mass was added to the buccal surfaces of the premolars to create a smooth transition from canines to molars (Figs 18 to 21). The ability to apply corrections to all components using layering porcelain makes the IPS e.max system very user friendly (Fig 22).
Fig 7  Horizontal bands added to the porcelain buildup to mimic the natural tooth structure and surface texture.

Fig 8  Internal aspect of the porcelain buildup.

Fig 9a and 9b  Internal stain.
Figs 10a and 10b  Transparent and translucent porcelain buildup.

Fig 11  Transparent and translucent powders.

Fig 12  Surface texture added.

Fig 13  Final restorations on the cast prior to delivery.

Final porcelain buildup and characterization are carried out as mapped (Figs 10 to 12). Figure 13 shows the definitive restorations prior to delivery and Fig 14 in smile view upon delivery—satisfactory in terms of form, color, phonetics, and function.