



Using Digital Design to Facilitate Communication Among Providers in Interdisciplinary Cases

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Introduction

Facilitating conversations with other dental specialists is important to provide patients with the best care. Using digital technologies allows for providers who are not in the same facility to coordinate treatment and adjust teeth position as needed. This presentation reviews the use of digital design software (Exocad) to discuss and plan a case alongside a local Orthodontist.

Case Report

The patient is a 46 year-old female who presented to the UNC Prosthodontic Graduate Clinic and recently had an ISFPD fabricated at a local dentist, but was unsatisfied with the results of the treatment. She had already begun removable aligner therapy (Invisalign®), also in private practice. Patient wanted to improve the esthetics of the restoration due to unsatisfactory shape, color, and material.

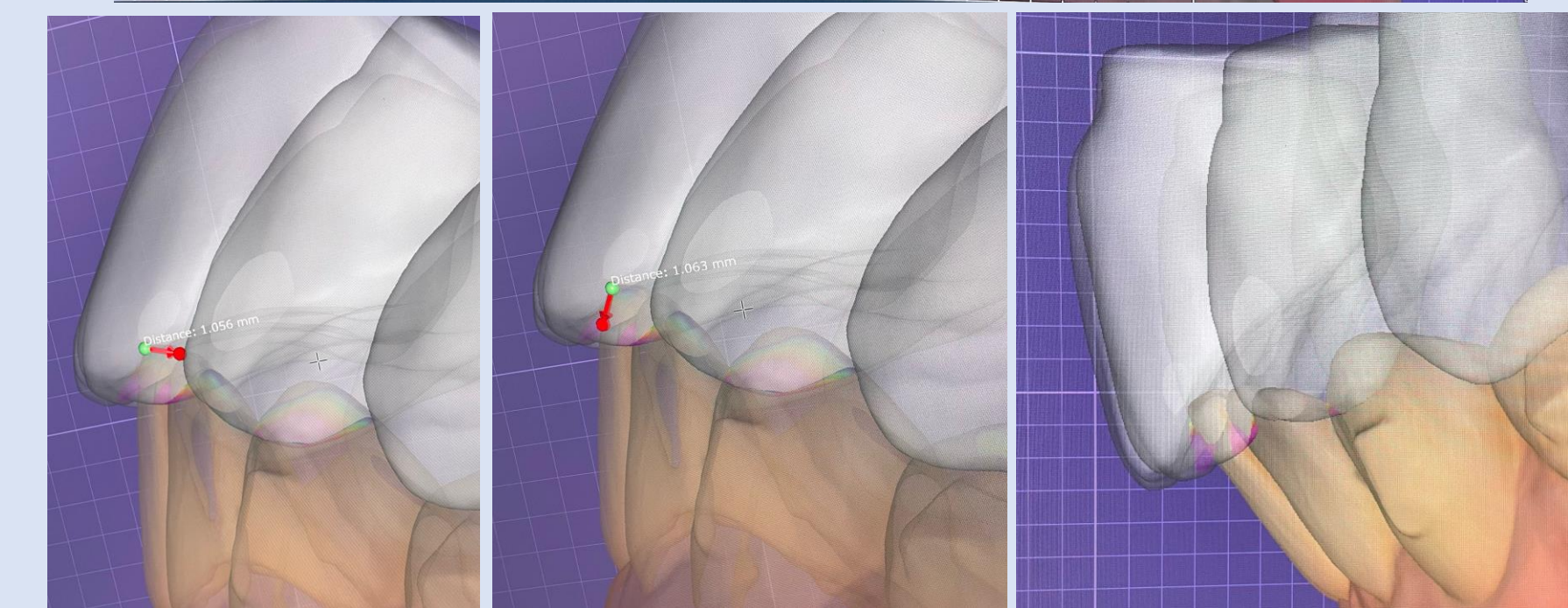
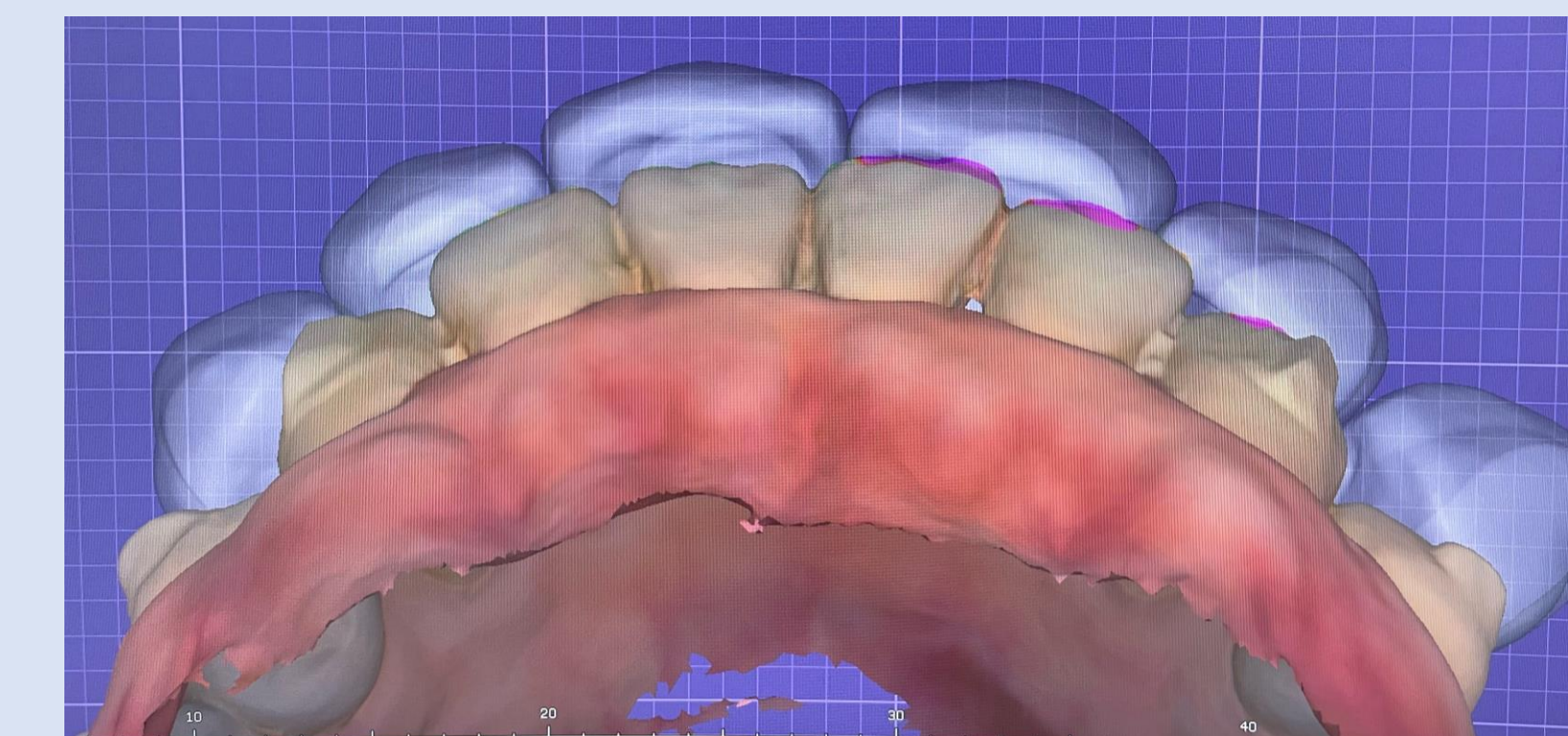
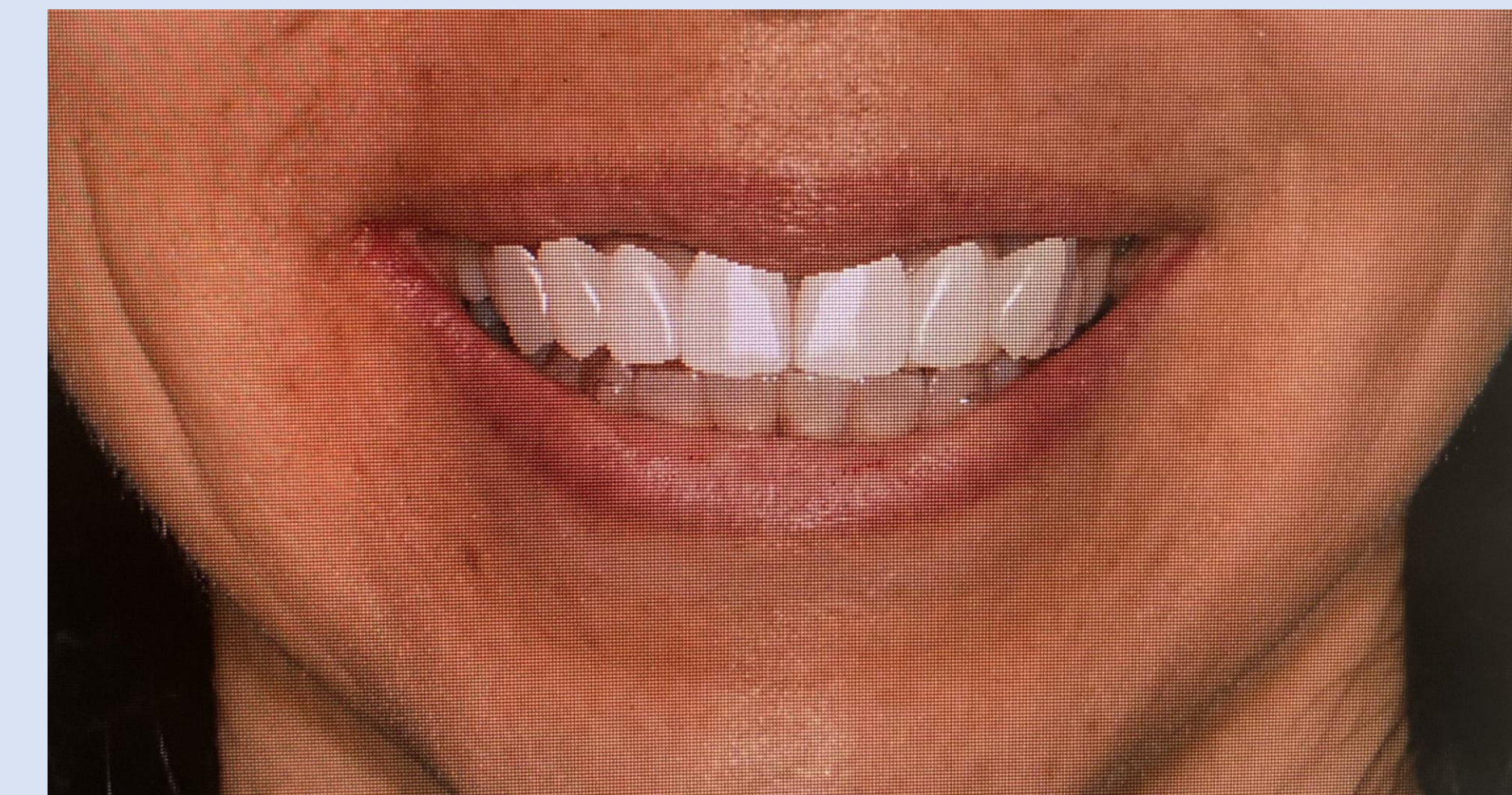


Clinical examination revealed that to provide the patient with a more esthetic option, the mandibular anterior teeth would need to be intruded and retroclined slightly to generate more interocclusal space. As the patient was still actively in orthodontic treatment, the Orthodontist requested a mock-up and measurements to know where the patient's teeth would ideally need to be for the ideal restoration.

A scan was taken (3Shape Trios scanner) and imported into Exocad, and a digital wax-up was completed after a comprehensive smile assessment, to guide the Orthodontist where the prosthesis would appear more esthetic and address the patient's chief complaints. Measurements on the software were then taken, and photos were sent to the Orthodontist so that he knew exactly where to reposition the teeth.

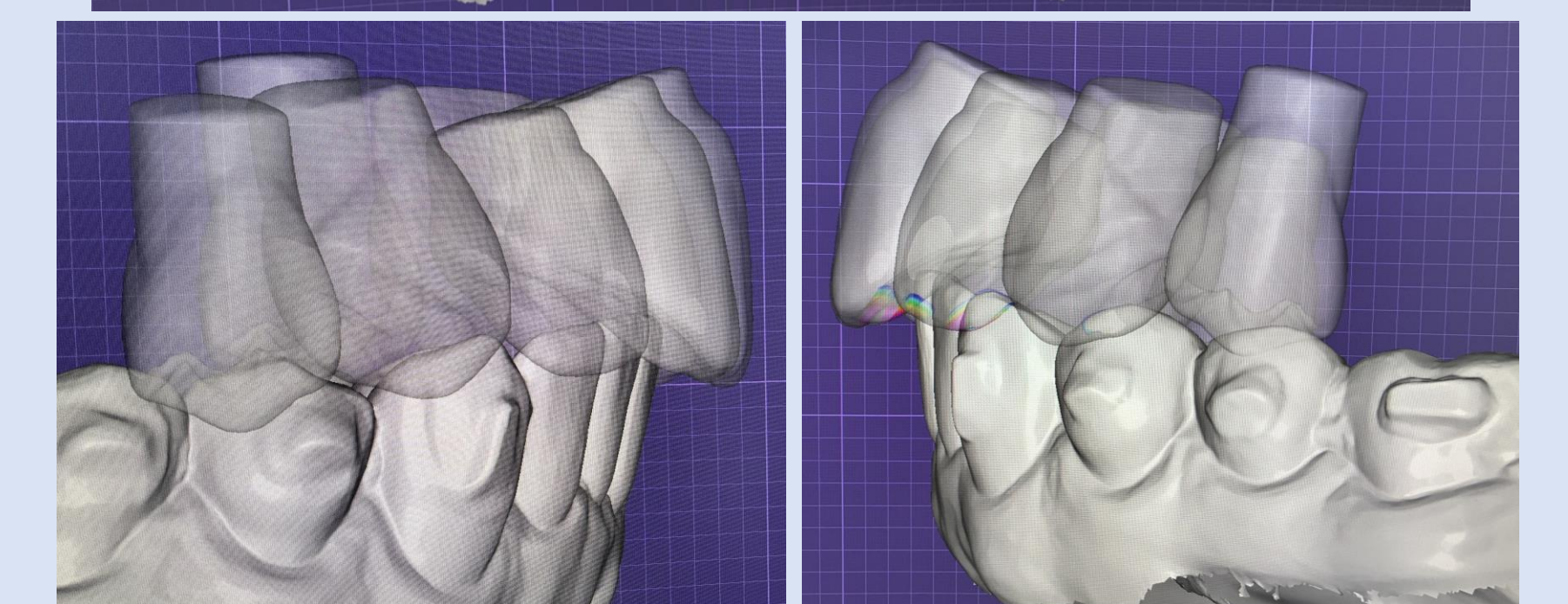
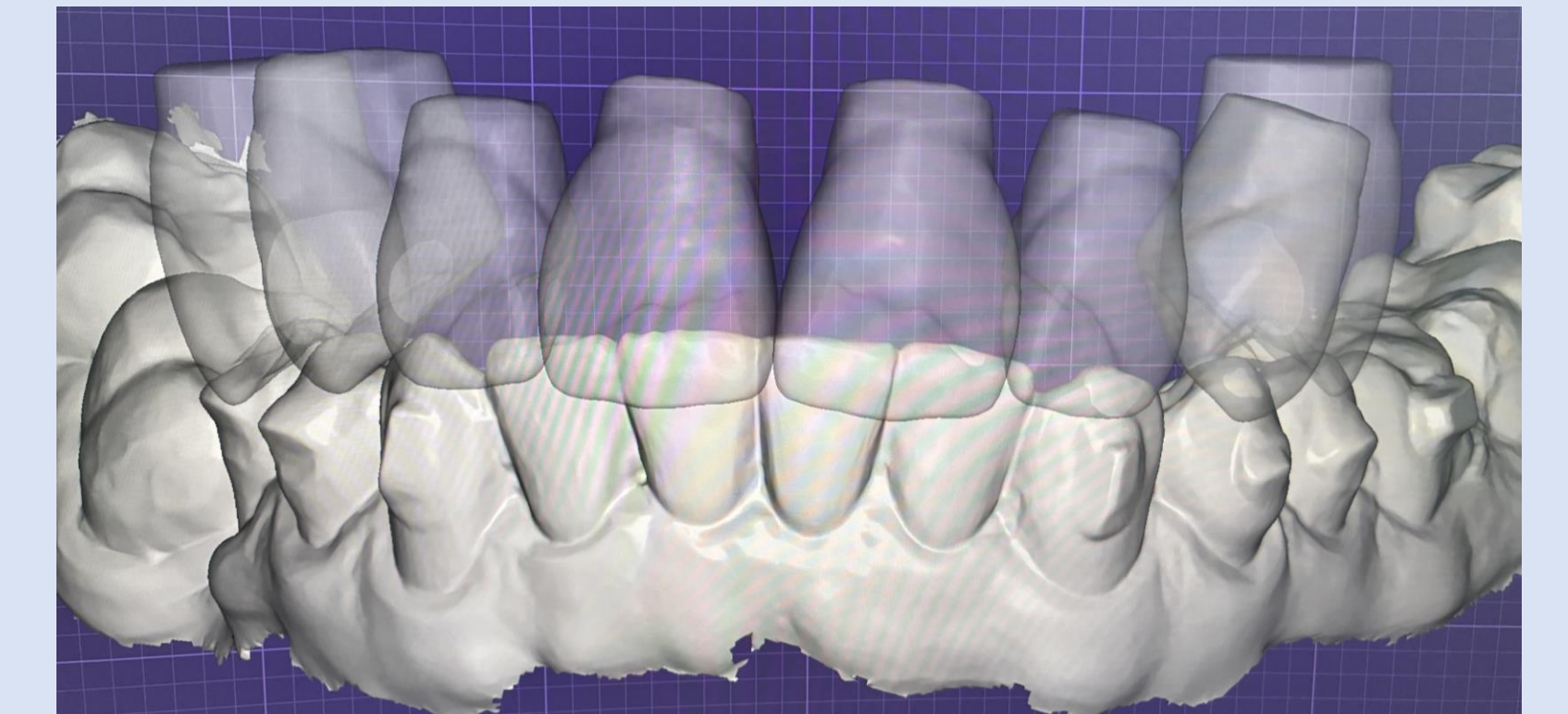
A new Trios scan was taken and uploaded to verify the teeth movement in comparison to the original wax-up, allowing for all treatment to be conducted without removing the current prosthesis. Communication back and forth with the Orthodontist achieved a more desirable result in the mandibular arch design. Re-importing into the digital software allowed for constant check-ups to review the progress of Invisalign® treatment.

Exocad Planning



Initial Presentation with Mock-Up

Smile Design Mock-Up



Latest Scan with Mock-Up

References

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