<section-header>FOREVER SMILESBRACER SMILESBRACER SMILESBRACER SMILESOfficial Newsletter fromDRACE SDE Newsletter fromDRACE SDE Newsletter fromDRACE SDE Newsletter fromMarch 2022 ISUE

FOSSIL FASCINATION

Dental anthropology is a distinct subfield of bioarcheology and physical anthropology. It studies development, eruption, number, size, morphology, modification, wear, and pathology of teeth. It helps scientists answer questions about our ancestral evolution, as well as the diversity of humans and animals through analyzing variations in the form and dimensions of teeth, as well as micro- and molecular analysis of dental components.

Dr. Yan Razdolsky of Forever Smiles



Orthodontics is, himself, an avid dental anthropology hobbyist and enthusiast. In fact, it is this deep-rooted characteristic that many who visit our office know has manifested in

quite the collection of fossils! Not only does Dr. Yan use fossils as a teaching tool with patients, his fascination is also one he shares with each of his children, and even now with his grandson, Caleb.

Indeed, through the study of animal fossils we have learned that, unlike humans, many animals do not suffer the same dental afflictions we humans do. Most other vertebrae species rarely have crooked teeth, impacted wisdom teeth, gum disease, or even cavities. What we have learned is that through human evolution our biological, dietary, and cultural changes have shifted us toward a



major modern health challenge.

Science tells us that the size of the human mouth has long been shrinking. Some say this is because the development of stone tools approximately 3.3 million years ago, which roughly represents the timeframe the shrinkage has occurred. You see, stone tools allowed humans to shift to a more carnivorous diet with

the ability to cut meat into bite-sized pieces, thereby reducing the amount of chewing required for sustenance. Less chewing meant reduced need for larger,

more powerful jaws. The development of agriculture further accelerated this evolution.

Some of you may recall, Dr. Yan shared with us in a previous Bracket Chatter the story of Otzi, the Ice Man. Otzi is a well-preserved mummy of a 46-year-old man who lived around 3300 BC. With his discovery, scientists for the first time could examine a 5,300-year-old mummy using the most



advanced diagnostic methods. Much like the rings of a tree, the minerals typical of the landscape where a human experiences the first months of a human life are



permanently stored in the teeth. By using 3D computer tomography researchers were able to reconstruct his oral cavity, providing insight into dental issues of the period, as well as uncovering significant findings of how the Ice Man lived.

So it's no wonder the study of fossils, both human and animal, are so fascinating to Dr. Yan. Through the study of anthropology and evolutionary biology, he can help patients and his grandson understand how evolution, diet, and proper oral care can impact an ever-changing perspective of their Forever Smiles.

Thank you for being part of our Forever Smiles Family. If you have any questions about this newsletter or anything else, please do not hesitate to contact us at our Buffalo Grove office: **847-215-7554** or via email: **yan@razdolsky.com**. We look forward to providing you and our community with even more reasons to smile!

www.razdolsky.com

FOREVER SMILES ORTHODONTICS

YAN RAZDOLSKY, DDS BSD LTD