

Preface

The release of *The Anthropology of Modern Human Teeth* (AMHT) in May 1997 was coincident with my retirement from the University of Alaska Fairbanks. To have a book published on your way out the door is not a normal procedure for someone in academic life. For the next four years, the book had little impact on my life. I was retired in every sense of the term for two years. In 1999, I took a job with Elderhostel in Scottsdale, Arizona to avoid a return trip to Alaska where they were tempting my wife with an attractive job in Anchorage. I enjoyed my 24 years in Alaska, but that phase of my life was over. I did not want to go north again after two years in the Arizona desert.

In 2001, through an unusual combination of chance and luck, I found myself back in academia at the University of Nevada Reno (UNR). It was only a temporary lecturer position but it gave me a chance to teach again and that was enough. Ultimately, a three-year lectureship evolved into a tenure-track teaching research position and I started anew as an advanced assistant professor or an assistant professor of advanced years.

This is the 20th anniversary of the first edition and much has transpired over that period. In 2010, Joel Irish and I organized a symposium on dental morphology honoring the contributions of Christy G. Turner II at the American Association of Physical Anthropologists meeting in Albuquerque, NM. Both of my collaborators contributed papers to the symposium that came out in the edited volume *Anthropological Perspectives on Tooth Morphology: Genetics, Evolution, Variation* (Scott and Irish, 2013). Unfortunately, due to health issues, Christy could not attend the meeting. On a visit to Tempe in 2012, we started to plot our next joint project, which was going to be a more detailed and better-illustrated version of the Turner et al. (1991) article on the Arizona State University Dental Anthropology System. My summer trip to Tempe to begin work on that project was scheduled for early August. Regrettably, Christy passed away in July of 2013, marking the end of a long, productive career and a colorful, globe-trotting life (Scott, 2013, 2014) (Figs 1 and 2).

After July of 2013, Christy was no longer with us in person but he remains with many of us in spirit. In January of 2014, I traveled to Tempe and with the aid and kindness of Christy's youngest daughter Korri and his second wife Olga Pavlova, I initiated the Christy G. Turner II legacy project. There were no external funds involved, only the desire to not let decades of hard labor fall victim to silver fish and the ravages of time (e.g., the 5¼-inch floppy drives that stored his data suffered "disk rot" and were no longer usable). During four visits to the Turner home on Campo Allegre, I scanned 30,000 data sheets, hundreds of computer print-outs with the full class frequency distributions for 29 key crown and root

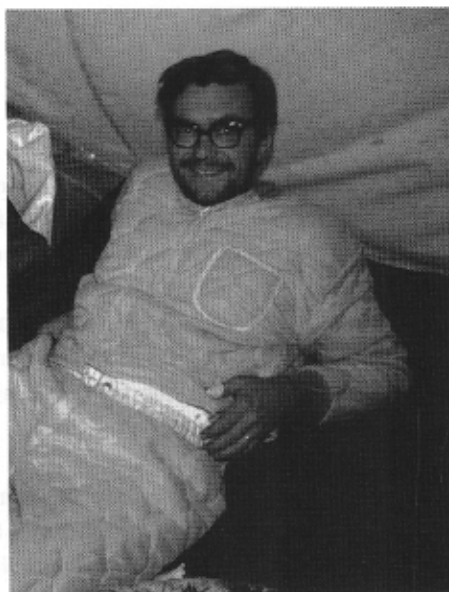


Fig. 1 Christy had two major passions: fieldwork and museum research. In this photo, he was resting in a tent while doing fieldwork in the Aleutian Islands, Alaska.

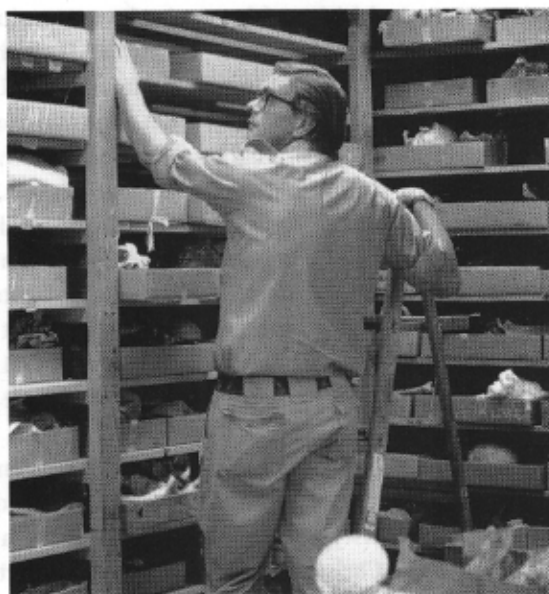


Fig. 2 This photo captures one slice of time for Christy's second passion. He spent untold hours in museums around the world making observations on the dentitions of human skeletal remains, with special emphasis on tooth crown and root morphology.

traits, and 3,000 slides. He remains a co-author of this second edition because it would not be possible without his inestimable contributions to the study of tooth morphology.

Christy and I shared a fondness for idioms so “the show must go on” seems appropriate in this case. I recruited Joel Irish to help with the volume we had planned on the Arizona State University Dental Anthropology System (Scott and Irish, 2017). Joel and I edited another volume the year before (Irish and Scott, 2016), titled *A Companion to Dental Anthropology*, and Blackwell included a photo of Christy looking at teeth on the cover.

The first edition of this volume enjoyed success in terms of sales and citations and Cambridge editors had broached the subject of a second edition several times. The time was not right until 2016–2017 when I had a chance to take my first sabbatical leave at UNR. What better place to spend a sabbatical than at The University of Adelaide, South Australia, with Grant Townsend and colleagues in the Murray Barrett laboratory at the Adelaide Dental School. With 20 years between editions and tremendous strides in genetical and evolutionary studies of teeth, I invited Grant, one of the world’s leading authorities on dental genetics, to co-author the second edition. I was in Spain when the reviews for the second edition proposal started rolling in. Two of the reviewers strongly recommended that the topics covered in the first volume be augmented by a chapter on fossil hominin teeth. I was traveling on a train from Burgos to Bilbao, after visiting María Martín-Torres and her family in Burgos, when I had an epiphany. If Grant was going to contribute to the chapters on dental genetics and ontogeny, Maria would be an excellent collaborator who could bring her considerable expertise to bear on fossil hominin teeth. When I sent a text that invited her to join the team, I told her to take her time and think about it, no hurry. Her response was an almost instantaneous and excited yes! That is how Scott, Turner, Townsend, and Martín-Torres came to collaborate on this new edition of AMHT.

Although the outline of this volume is much like the first, except for a new Chapter 8 on fossil hominin dental morphology, we took advantage of the data Christy accumulated across four decades. When there is reference to the CGT II database, that signifies the hundreds of Excel spreadsheets with crown and root trait frequencies for samples throughout the world, with special emphasis on Asia, the Pacific, and the New World. For the first volume, Christy provided print-outs for grouped data (e.g., Australia as one large composite sample rather than the 15 samples we now have). The characterization of world variation in Chapter 5 is not radically different than Chapter 5 in the first edition, but there is a new organization and frequencies are based on means computed across multiple samples. Many of the photos of traits in Chapter 2 were scanned from Christy’s huge slide collection.

The last two decades have witnessed a major upsurge in theses, dissertations, and articles focusing on dental morphology. We try to cite as many of these as possible to bring our bibliography up-to-date, but there was no space to summarize all these exciting contributions. It is our goal to “kick the can down the road” and discuss

not only what has been done but what needs to be done to make further progress on the dental morphological front. New traits to discover, advanced methods to observe both the "ins" (enamel-dentine junction) and "outs" (outer enamel surface) of morphology, concurrent analysis of morphology and genomics – the list goes on and on. These are exciting times for the study of dental morphology and we encourage individuals and teams of individuals to address and fine-tune the unresolved issues discussed in the following pages.