



Dental Anthropology Newsletter

A PUBLICATION OF
THE DENTAL ANTHROPOLOGY ASSOCIATION

Laboratory of Dental Anthropology Department of Anthropology
Arizona State University Tempe, AZ 85287-2402

Volume 5, Number 3 May, 1991

PRESIDENTIAL ADDRESS

In the last Dental Anthropology Newsletter (Vol. 5, No. 2, January, 1991) I discussed my concern about what I believed to be a lack of dental anthropology courses in the curricula in the U. S. and abroad. At that time, I knew of four courses in dental anthropology being taught in the U. S. and I asked the readers of DAN to write me if they taught dental anthropology courses or knew of someone that did. The response has not been overwhelming, but I am pleased to report that there are several more dental anthropology courses being offered in the U. S. than I had realized when I wrote my last communication in DAN. To date, I have not heard from anyone abroad (see Letters to the Editor, this volume, however - Eds.). I would like to present a few comments from these letters.

In a most informative letter from Kathleen Gibson regarding dental anthropology and its role in Dental School

curricula, I learned that she and her colleague Pat Kennedy have been teaching dental anthropology and comparative dental anatomy for nearly twenty years at the University of Texas Dental Branch in Houston.

John Lukacs of the University of Oregon teaches a course in Dental Morphology and Evolution and a Laboratory Methods in Dental Anthropology, the two designed to be taken together. John sent the syllabus for the course and said that he would be interested in receiving syllabi from other colleagues.

Jerome Rose wrote that he has been offering a course in dental anthropology at the University of Arkansas since 1980, and that, to date, four students have completed their graduate work in this field. Incidentally, I received a letter from one of Rose's former students, Murray Marks, who is now a Ph.D. candidate at the University of Tennessee and plans to continue in dental anthropology.

Paul Sciulli, at Ohio State University, informed me that he teaches a course in dental anthropology and that dental anthropology is a potential subfield for Ph.D. candidates at Ohio State.

I received a letter from Stephen Wagner, a prosthodontist from Albuquerque, New Mexico. Dr. Wagner presented a course in dental anthropology at the University of New Mexico in 1984 and plans to offer an updated version in January 1992.

I would like to thank each of these individuals for taking the time to answer my query regarding the number of dental anthropology courses currently being offered in the U. S. There appear to be about ten universities in the U. S. offering courses in dental anthropology at the present time. In my opinion, this is not many when one considers the number of anthropology departments and dental schools in the U. S. I look forward to seeing an increase in this number during the coming years and, from

the contents of the letters I received, I can report to the membership that the prospects look most favorable.

Daris R. Swindler
DAA President

RECENT RESEARCH ACTIVITY

A letter arrived today (April 29) from Dental Anthropology Newsletter Editor, Sue Haessler, written January 25 (very slow mail service) from Moscow, USSR. She relates that her dental anthropology data-collecting has gone fantastically at the Museum of Anthropology of Moscow State University, and in dental anthropologist Alexander A. Zubov's lab at the Institute of Ethnography. She has completed a big survey of Central Asian teeth curated in Leningrad, and she will travel from February to May to Irkutsk, Tomsk, Novosibirsk, Tblisi, and back to Moscow to Tempe this summer. She has been able to carry out this vast amount of work through a grant from IREX (International Research and Exchanges Board) in cooperation with the USSR Academy of Sciences.

Christy Turner II
Arizona State University

Subho Roy, a graduate student of Professor Asok N. Ghosh (Calcutta University), is currently engaged on a systematic research project involving the role and impact of culture on dental wear and tooth loss patterns in modern Indian populations. Analysis

of dental samples collected from Dental Hospitals and private practitioners will be included as part of his M.Sc. dissertation work with Professor Ghosh, entitled Studies of the Bio-Cultural Characters on the Teeth of Calcutta Populations.

information supplied by:
Mehmet Yasar Iscan
Florida Atlantic University

BIBLIOGRAPHY ON THE ORAL HEALTH OF CANADIAN NATIVES

John T. Mayhall (University of Toronto) has recently assembled a bibliography on the Oral Health of Canadian Natives, containing over 100 references. However, he notes that the current bibliography does not include references in some areas of dental care, dental morphology, or oral pathology, and would like to hear from Association members who may know of relevant publications not listed in the document. Anyone interested in obtaining a review copy of Mayhall's current bibliography (free of charge) should write to the following address:

Dr. John T. Mayhall, Faculty
of Dentistry, University of
Toronto, 124 Edward Street,
Toronto, Ontario M50 106
CANADA

MANUSCRIPT REQUEST FOR DENTAL ENAMEL DEFECTS ISSUE

A special monographic issue

of the Journal of Paleopathology is slated for publication at the end of 1991, and will contain 20-50 papers dealing with dental enamel defects. Alan H. Goodman and Luigi Capasso (co-editors of the issue) have suggested several areas of possible contributions, including studies of etiology and pathogenesis, anatomical and morphological studies, epidemiology, and comparative studies. Especially needed are manuscripts in methodological concerns and theoretical issues, on non-human primates and other taxa, and on studies with comparative human samples. Manuscripts must be received by July 1, 1991. An original and one copy should be sent to the following address:

Dr. Alan H. Goodman,
Hampshire College, School of
Natural Science, Amherst,
Massachusetts 01002
U.S.A.

The Journal of Paleopathology (in English) is published out of Chieti, Italy, three times a year, and the journal is noted for its exceptional use of graphics and color plates. Instructions to authors and/or additional information may be obtained from Alan Goodman at the above address or any of the following:

FAX: 413-549-0707
BITNET:AGOODMAN@
HAMPVMS
Telephone: (413) 549-4600

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BOOKS OF INTEREST

Dr. Geoffrey H. Sperber graciously provided information on the following publications which are of specific interest to dental anthropologists:

From Apes to Angels: Essays in Anthropology in Honor of Phillip V. Tobias. Edited by Geoffrey H. Sperber. 1990. New York: Wiley-Liss. \$59.95.

This is a general collection of papers, divided into four major sections (Part I: Cultural Anthropology; Part II: Genetics, Pathology, and Methodology; Part III: Paleoanthropology; Part IV: Human Biology). Three articles specifically address dental anthropology. These are, "Deciduous dental features on the Kalahari San: comparison of non-metrical traits," "The phylogeny and ontogeny of dental morphology," and "Craniofacial growth studies and prediction in orthodontics."

Evolution of the Skull, Jaws and Teeth in Vertebrates. W.G. Young, R. Jupp and B.J. Kruger. St. Lucia, Queensland: Dept. of Oral Biology and Oral Surgery, U. of Queensland. 1989. No price available.

Dental evolution, comparative odontology, and paleoanthropology are discussed in detail within the confines of a textbook. The book would be quite appropriate for dentists interested in physical anthropology and covers a surprisingly wide range of topics

geared towards those interested in oral biology.

SRS

CALL FOR PAPERS

3rd International Congress on Human Paleontology. Jerusalem, Israel, August 23-28, 1992.

First announcement and call for papers. Abstracts are being accepted for both oral presentation and poster sessions and must be submitted on the form provided for that purpose. The deadline for abstracts is December 31, 1991. Please send requests for more information and the second announcement to:

The 3rd International Congress on Human Paleontology, c/o International Ltd., P.O. Box 29313, 61292 Tel Aviv, Israel.

The 61st Association of American Physical Anthropologists Meetings, March 30-April 4, 1992, Las Vegas, Nevada.

Deadlines for the submission of abstracts and symposium proposals are as follows:

Symposium proposals:
July 15, 1991
All abstracts:
September 2, 1991
Manuscripts for Student Prizes:
January 13, 1992

SRS

REMINDER FOR DAA MEMBERSHIP RENEWAL

Please check the address label on your current issue of the Newsletter. If a series of asterisks appear after your name, we have not yet received your 1991 membership dues. A renewal form is enclosed for your convenience. If your dues have been paid, the date "1991" will be printed on the label, and you are considered to have active status in the Dental Anthropology Association. If you have any questions, please contact Diane E. Hawkey, Secretary-Treasurer, Dental Anthropology Association, Department of Anthropology, Arizona State University, Tempe AZ 85287-2402, U.S.A.

DH

COMPUTER SOFTWARE AND STATISTICS

Do you have information about new computer software or statistical procedures that would be of use to DAA members in their research, or have you designed your own routines? If so, the DAA Newsletter editors are soliciting this information to share with members. We will include reviews of selected software in subsequent issues of the newsletter.

SRS

LETTERS TO THE EDITOR

Dear Editors,

In response to Daris Swindler's Presidential Address published in the January 1991 (Vol. 5, No. 2) issue of the Dental Anthropology Newsletter, wherein he asserted "Dental schools in this country stopped offering courses in Comparative Dental Anatomy several years ago," I wish to bring to your attention the fact that comparative odontology and physical anthropology are taught as an integral part of the dental curriculum at the University of Alberta. Moreover, an editorial on this subject was published in the February 1991 issue (Vol. 23, No.3, p.74) of the Association of Canadian Faculties of Dentistry Forum, and an article ("The place of physical anthropology and comparative odontology in dental education") published in the Journal of Dental Education (December 1990, pp.99-103).

Regarding textbooks on this topic, a section of Kraus' Dental Anatomy and Occlusion, 2nd edition, edited by R. Jordan and L. Abrams, published by B. C. Decker Inc., Philadelphia, 1991, contains material on comparative odontology and evolution, and is a prescribed textbook at this school. A recently published textbook by W. G. Young, R. Jupp and B. J. Kruger entitled Evolution of the Skull, Jaws and Teeth published by the University of Queensland, St. Lucia, Australia has been reviewed for the Canadian Dental Association Journal, and is currently "in press" (noted previously in this issue of the Newsletter - Eds.).

Dental anthropology is not dead as Dr. Swindler presumes and is alive and well in at least some parts of Canada!

G.H. Sperber
Professor of Oral Biology
University of Alberta
Edmonton

Dear Editors,

Volume 5, Number 2 of the Newsletter included a note on a tooth preservative used by Christy Turner. I'm enclosing a copy of the "Material Safety Data Sheet" for phenol, and urge you to advise DAA members that the toxicological properties of phenol are potentially lethal. According to Occupational Health and Safety, the only reduction in the toxicological properties of phenol that might be achieved by combining it with glycerol and/or water is the relatively insignificant benefit of dilution. In my opinion the risks associated with the possible absorption of vapour or liquid are such that I personally would not work with the material, nor would I ask my curatorial assistants to do so. In addition, the health risks associated with skin contact suggest that students should not be handling teeth so treated, although the use of latex gloves might minimize the risk sufficiently.

Anyone interested in using this method should clear it with their campus health and safety authorities.

Nancy C. Lovell
Assist. Prof. of Anthro.
and Curator of Osteology
University of Alberta
Edmonton, Canada

NOTE FROM THE EDITORS:

Despite its potential toxicity in concentrated forms, dilute concentrations of phenol have been used for years in such commonly utilized products as calamine lotion and some mouthwashes. However, as with all chemicals, the Editors strongly recommend following the safety guidelines established for your university or business.

DENTAL ANTHROPOLOGY PRESENTATIONS AT THE 1991 MEETING OF THE AMERICAN ASSOCIATION OF PHYSICAL ANTHROPOLOGISTS

The 60th Annual Meeting of the American Association of Physical Anthropologists was held in Milwaukee, Wisconsin from April 2-6, and included more than 50 presentations that pertained to the field of dental anthropology.

Several joint AAPA-Dental Anthropology Association sessions were held, including a symposium honoring DAA President Daris R. Swindler, which was chaired by Joyce Sirianni (State University of New York, Buffalo) and Robert Anemone (State University of New York, Geneseo). The Swindler symposium presented current research that had been shaped and motivated by Swindler's 22-year academic career in the field of craniofacial growth and development in nonhuman primates. Abstracts of all the following AAPA presentations were published in the Annual Meeting Issue (Supplement 12, 1991) of the American Journal of Physical Anthropology:

- Anemone RL and Watts ES. Molar development in known chimpanzees: developmental and evolutionary relationships.
- Beecher R, Ward S, Kelley J, Rekow D, and Hu QH. Shape analysis using high resolution three dimensional surface data.
- Bush HM. The association of vertebral canal size and dental enamel hypoplasia in a Romano-British population sample.
- Byrd KE. Neuromuscular influences on craniofacial growth.
- Conroy GC and Vannier MW. Noninvasive evaluation of enamel thickness and volume in South African australopithecines by computed tomography.
- Cope DA. Measures of dental variation as indicators of multiple taxa in samples of sympatric Cercopithecus species.
- Crummett TL. A new handle on the shovel.
- Daegling DJ. The influence of diet on mandibular morphology.
- Donat LD and Rose JC. Enamel hypoplasia: a morphological classification.
- Gavan JA. Gingival dental eruption in Macaca mulatta.
- German RZ, Hertweck DW, Sirianni JE, and Swindler DR. Ontogenetic allometry in macaques.
- Goodman AH. Variation in estimation of age at formation of a linear enamel hypoplasia due to choice of developmental standard.
- Grausz HM. Ontogenetic allometry in 3-D: patterns of human craniofacial growth.
- Grine FE. Use of computed tomography to measure tooth enamel thickness.
- Haines DE. Studies on cerebellar cortical efferents in Saimiri sciureus: evidence of a projection from the x zone into the posterior interposed nucleus.
- Harris EF. Laterality in human odontometrics: analysis of contemporary American whites.
- Hemphill BE. Tooth size apportionment patterns among social groups in contemporary India: factors of caste, language, and geography.
- Henneberg RJ and Henneberg M. Dental wear in a rural population of the Ancient Greek colony Metaponto in Italy (6th-3rd century BC).
- Hildebolt CF, Phillips-Conroy JE, Vannier MW, and Jolly CJ. Quantitative periodontal disease assessment in non-human primates.
- Hodges DC. Occlusal trait frequencies and associations in four British skeletal samples.
- Jablonski NG. Dental variations in species of Rhinopithecus and their relationship to the evolution of the genus.
- Jacobi KP. Population affinities and social organization of Tipu individuals through dental metrics and discrete traits.
- Jones RE and Holman DJ. Longitudinal analysis of deciduous tooth emergence in Japanese children.
- Karhu S. Microscopic examination of enamel defects in a group of Medieval Christian Nubians.
- Kuykendall KL Mahoney CJ, and Conroy GC. Dental emergence and development in chimpanzees of known age and sex.

- Levitch LC, German RZ, and Phillips LM. Growth and force potential in the perinatal human craniomandibular musculature. Liversidge HM. Total tooth height and age in the early developing dentition.
- Losken A, Mooney M, and Siegel M. Comparative analysis of mandibular growth patterns in seven animal models.
- Mack ME and Coppa A. Frequency and chronological distribution of enamel hypoplasia in a skeletal sample from Ra's al-Hamra (RH5).
- Maas MC. Enamel microstructure and dental function in Otolemur crassicaudatus.
- Mahaney MC and Stalker HJ. Molar crown variants in a human genetic isolate.
- Murphy SP, Costa MA, and Marks MK. Dental disease in the Agroalfarero Medio period of San Pedro de Atacama: highest caries rate in prehistoric Chile.
- Pastor RF. Early agricultural intensification and dental microwear in the Indian subcontinent.
- Perizonius WRK, Brooks S, and Brooks RH. Occlusal and linear dental enamel hypoplasias.
- Phillips-Conroy JE, Hildebolt CF, and Altmann J. Variation in periodontal disease in free-ranging baboons of Kenya and Ethiopia.
- Propst KB. Three dimensional modelling of dental enamel.
- Protsch von Zieten RR and Eckhardt RB. Transverse enamel hypoplasia as an indicator of developmental stress in pongids and hominids.
- Rae TC. Homoplasy of dental proportions in early hominid evolution.
- Ramirez-Rozzi F. Differences in molar teeth development between Paranthropus aethiopicus and Paranthropus boisei.
- Siebert JR. Toward a cladistic understanding of congenital anomalies.
- Sirianni JE. Dentofacial variation in colobine monkeys.
- Skinner CE and Aziz MA. The functional morphology of masticatory structures in selected primates.
- Smith BH. Age of weaning approximates age of emergence of the first permanent molar in non-human primates.
- Stalker HJ and Mahaney MC. Morphometric reduction in succedaneous and accessional teeth: implications for inheritance of dental agenesis.
- Sutter RC. Dental wear in the Highland Park collection: a revised technique for dental aging.
- Takahasi LK. Masticatory morphology of Macaca thibetana.
- Teaford MF and Keller RJ. Dental microwear and diet in extant and extinct Theropithecus.
- Turner CG II and Hawkey DE. World variation in Tomes' root.
- Ward SC, Becher R, and Kelley J. Post-canine occlusal anatomy of Sivapithecus, Lufengpithecus, and Pongo.
- Whittington SL. Enamel hypoplasia in the low status Maya population of Copan, Honduras around the time of the collapse.
- Willis MS and Hildebolt CF. Review and analysis of colobine dental literature.
- Winkler LA. An assessment of variation in the dental development of known age chimpanzees and orangutans.

DH

Minutes of the 1991 DAA Meeting
held in Milwaukee, WI - April 5, 1991
Daris Swindler, presiding

I. Report of the Secretary-Treasurer (Diane Hawkey):

A. Last year's minutes: Following tradition, the minutes of last year's meeting in Miami, Florida, were published in the following issue (Vol. 5 No. 1) of the Dental Anthropology Newsletter. The motion was made to accept the minutes, and seconded.

B. Status of the Treasury: As of April 1, 1991, the Association's net assets are \$2,612.16. The average cost expended on each issue of the Newsletter (publication costs and postage to foreign countries) averaged \$260.00. Since the Newsletter is now published at Arizona State University, Joel Irish (one of the Newsletter editors) has made arrangements for the ASU Department of Anthropology to cover the postage costs within the United States.

Seventeen new members have joined the Association since the last meeting, bringing the total membership to 191 individuals. Foreign membership has continued to increase and includes colleagues in 24 countries outside the U.S., now including Australia, India and the Soviet Union. We currently sponsor 10 of these scholars, and on behalf of the DAA, the Secretary-Treasurer thanked all of the members who have donated towards the foreign sponsorship fund.

An annual dues notification was instituted in January, in order to lessen confusion concerning active membership status in the organization. Since the membership list will be published yearly, the Secretary-Treasurer asked that changes of address be sent to her as soon as possible.

II. Dental Anthropology Newsletter Editors' report (Joel D. Irish):

All DAA members were reminded that short articles and commentaries are always welcome for inclusion in the Newsletter.

III. Daris Swindler symposium

M.Yasar Iscan wished to note that a special Dental Anthropology Association/American Association of Physical Anthropologists symposium was held at this year's meeting in honor of Daris Swindler.

IV. Old Business

Editorial Board: The role of the Editorial Board established at last year's meeting (C. Loring Brace, Albert A. Dahlberg, Gloria y'Edynak, Edward E. Hunt, Susan Loth, John Lukacs, Christy G. Turner II) was clarified further. Iscan indicated that the primary function of the board is to provide a communication link with the rest of the Association, by submitting short contributions to the Newsletter. He suggested that a column devoted to regional news may be of interest to Association members, and Nancy Lovell pointed out that news items concerning current work of graduate students could also be included. Iscan believed that an individual other than a dental anthropologist should be elected to the Editorial Board and Dahlberg noted that the role of the Editorial Board should eventually be defined in the DAA constitution by-laws.

V. New Business

DAA Fifth Anniversary: Since the DAA Treasury continues to increase, Swindler suggested that the assets might be applied towards a DAA fifth anniversary volume, perhaps as a joint AJPA/DAA issue. Iscan pointed out that smaller publishers might be an option, although Hunt noted that its distribution would be limited. The costs and length of such an issue were discussed, with 12 articles seen as a reasonable length. If a joint issue does occur, Hunt suggested that the articles be refereed by the DAA Editorial Board, although as Iscan noted, these articles would also be reviewed by the AJPA Editorial Board. Swindler suggested that further information be obtained from Matt Cartmill, and that this matter would be reported in greater depth in a future Newsletter.

Potential members: Hawkey requested that names/addresses of individuals who might be interested in membership in the DAA be sent to her, so that a complimentary copy of the Newsletter, along with information concerning the Association could be mailed. Several suggestions were entertained as to the best way to increase membership, including notices sent to the American Journal of Physical Anthropology, American Anthropologist, Journal of the American Dental Association, the Paleopathology Association, the Physical Anthropology Newsletter, and the dental and orthodontic journals. Leon Pappanostos suggested that the notices be placed in the News Item columns of these journals, in order to eliminate advertising costs.

Newsletter publication dates: Irish suggested that the Newsletter be regularly published in the months of September, January and May. Publication of a May issue would include information on the presentations that had been given in the AAPA and DAA meetings. Iscan noted that this change would eliminate the "pre-meeting" issue which, in the past, has served to inform non-AAPA members of the meeting schedule. Linda Winkler pointed out that a late May issue might also include information on the deadlines for the AAPA abstracts, and enable Association members to plan ahead. A change from September to October was suggested by James Calcagno, since this schedule would allow more time to send in articles concerning research done during the summer months.

Constitution by-laws: Since the constitution and by-laws of the DAA have not been formally updated since its inception in 1986, there is some debate as to the election and length of office of DAA board members. Although six members agreed to serve on a tentative nominating committee (Edward Hunt, Brian Hemphill, Nancy Lovell, Leon Pappanostos, Christy Turner, Linda Winkler), any actions taken by this committee were delayed until the role of the nominating committee is clarified. Iscan and Hawkey agreed to formally update the constitution, adding the amendments adopted during the past five years. This version of the by-laws will be printed in a future issue of the Newsletter.

Membership discounts on books of interest: Hawkey recently spoke with the publishers at Wiley-Liss about possible DAA member discounts on books related to dentistry and dental anthropology. Although no decision had been made at the time of the meeting, Hawkey noted that a copy of the membership list may have to be released to the publishers in order to receive a discount. No objections were raised.

Minutes prepared by Diane E. Hawkey
Submitted April 8, 1991

SELECTED BIBLIOGRAPHY OF RECENT PUBLICATIONS (compiled by Diane Hawkey)

Akpata ES and Winter PJ (1991) Replication of human occlusal tooth attrition surfaces for scanning electron microscope study. *Journal of Oral Rehabilitation* 18:61-68.

Alshammery AR, Guile EE, and Elbackly M (1990) Prevalence of caries in primary school children in Saudi Arabia. *Community Dentistry and Oral Epidemiology* 18:320-321.

Anil S, Hari S, and Vijayakumar T (1990) Periodontal conditions of a selected population in Trivandrum District, Kerala, India. *Community Dentistry and Oral Epidemiology* 18:325.

Benfer RA and Edwards DS (1991) The principal axis method for measuring rate and amount of dental attrition: estimating juvenile or adult tooth wear from unaged adult teeth. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 325-340.

Bijella MFTB, Yared FNFG, Bijella VT, and Lopes ES (1990) Occurrence of primary incisor traumatism in Brazilian children - a house-by-house survey. *Journal of Dentistry for Children* 57:424-427.

Birkhed D (1990) Behavioural aspects of dietary habits and dental caries. *Caries Research* 24 (Suppl. 1): 27-35.

Brace CL, Smith SL, and Hunt KD (1991) What big teeth you had Grandma! Human tooth size, past and present. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 33-57.

Bullington J (1991) Deciduous dental microwear of prehistoric juveniles from the Lower Illinois River Valley. *American Journal of Physical Anthropology* 84:59-73.

Calcagno JM and Gibson KR (1991) Selective compromise: evolutionary trends and mechanisms in hominid tooth size. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 59-76.

Christie WH, Peikoff MD, and Fogel HM (1991) Maxillary molars with two palatal roots - a retrospective clinical study. *Journal of Endodontics* 17:80-84.

Clarke NG and Hirsch RS (1991) Physiological, pulpal, and periodontal factors influencing alveolar bone. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 241-266.

Corruccini RS (1991) Anthropological aspects of orofacial and occlusal variations and anomalies. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 295-323.

Dahlberg AA (1991) Historical perspectives of dental anthropology. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 7-11.

Donta AN and Tsiklakis KD (1989) The incidence of taurodontism in children and young adults: radiographic study. *Odontostomatology Prodos* 43:111-118. [In Greek, with an English summary.]

Drusini A, Calliari I, and Volpe A (1991) Root dentine transparency: age determination of human teeth using computerized densitometric analysis. *American Journal of Physical Anthropology* 85:25-30.

Emrich LJ, Shlossman M, and Genco RJ (1991) Periodontal disease in non-insulin-dependent diabetes mellitus. *Journal of Periodontology* 62:123-131.

Fincham AG, Bessem CC, Lau EC, Pavlova Z, Shuler Z, Slavkin HC, and Snead ML (1991) Human developing enamel proteins exhibit a sex-linked dimorphism. *Calcified Tissue International* 48:288-290.

Goodman AH, Martinez C, and Chavez A (1991) Nutritional supplementation and the development of linear enamel hypoplasias in children from Tezonteopan, Mexico. *American Journal of Clinical Nutrition* 53:773-781.

Goodman AH and Rose JC (1990) Assessment of systemic physiological perturbations from dental enamel hypoplasias and associated histological structures. *Yearbook of Physical Anthropology* 33:59-110.

Goodman AH and Rose JC (1991) Dental enamel hypoplasias as indicators of nutritional status. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 279-293.

Greenfield LO and Washburn A (1991) Polymorphic aspects of male anthropoid canines. *American Journal of Physical Anthropology* 84:17-34.

- Harris EF and Rathburn TA (1991) Ethnic differences in the apportionment of tooth sizes. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 121-142.
- Hartnady P and Rose JC (1991) Abnormal tooth-loss patterns among Archaic-period inhabitants of the Lower Pecos region, Texas. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 267-278.
- Harvey WL, Hatch RA, and Osborne JW (1991) Computerized occlusal analysis - an evaluation of the sensors. *Journal of Prosthetic Dentistry* 65:89-92.
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- Masuno M, Fukushima Y, Sugio Y, Ikeda M, and Kuroki Y (1991) Two unrelated cases of single maxillary central incisor with 7q terminal deletion. *Japanese Journal of Human Genetics* 35:311-318.
- Milner GR and Larsen CS (1991) Teeth as artifacts of human behavior: intentional mutilation and accidental modification. In, MA Kelley and CS Larsen (eds.): *Advances in Dental Anthropology*. NY: Wiley-Liss, pp. 357-378.
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The Dental
Anthropology
Newsletter

Volume 5 Number 3

May 1991

Publication of the
Dental Anthropology
Association

Published
three times yearly

Laboratory of
Dental Anthropology
Department of
Anthropology
Arizona State Univ.
Tempe, AZ 85282

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