

**Samuel Fastlicht**

# **Tooth Mutilations and Dentistry in Pre-Columbian Mexico**

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# **Human Mutilations and Dentistry in Pre-Columbian Mexico**

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by  
**Samuel Fastlicht**  
**Mexico City**

Translated by Marynette Heltzen and Ethel Comstock  
Supervised by the University of Southern California Press  
Los Angeles, California, U.S.A.

**Buch- und Zeitschriften-Verlag "Die Quintessenz" 1976**  
**Berlin, Chicago, Rio de Janeiro, and Tokyo**

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Front page picture:

Clay figure with mutilated teeth

Source: Veracruz, Late Classic (450-800 A. D.)

National Museum of Anthropology of Mexico



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Buch- und Zeitschriften-Verlag "Die Quintessenz" Berlin  
(for the edition in English, German and Japanese)

Library of Congress Catalog

Card No.: 74-25143

The Spanish edition was published 1971  
under title *La Odontología en el México Pre-Hispánico*  
by Talleres Edimex, S. de R. L., Mexico City.

Lithography: Industrie- und Presseklischee, Berlin

Composition: IBV Lichtsatz KG, Berlin

Print: Kupijai & Prochnow, Berlin

Binding: J. Godry, Berlin

Printed in Germany

ISBN: 3 87652 611 6

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In memory of my dear wife



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## Introduction

Dr. Samuel Fastlicht has asked me to write a brief foreword to his book *Tooth Mutilations and Dentistry in Pre-Columbian Mexico*.

To oblige such a good friend and distinguished researcher, I do so, although I feel that it is hardly necessary to introduce Dr. Fastlicht's work, even to the general public, much less to those who specialize in this field.

Certainly, the author is already very well known for his research into pre-Columbian dentistry in Mexico. This book can be considered the culmination of his earlier works, in which he brought to our attention the results of his previous investigations.

Borbolla, Romero, and Fastlicht are three Mexican researchers who have dedicated themselves to this subject and have carefully studied the very rich collection of our Department of Physical Anthropology of the National Museum (Mexico).

This book contains fresh points of view while richly augmenting former research projects. Therefore, it cannot be considered simply a summing up of the articles already published, but rather, as I have pointed out, a culmination of the research Fastlicht has done.

In spite of the zeal with which the subject has been handled, we Mexican anthropologists continue to ask the specialists in pre-Columbian dentistry these questions: What was the object of decorating teeth? What was its purpose? Did it indicate rank, riches, social position? Were these decorations purely esthetic? Did they have their basis in more profound magic and religious concepts?

The fact is that from the first millennium before Christ up to the time of the Spanish Conquest, varied forms of dental embellishment were used by practically all the natives of Mesoamerica.

The question remains, but certainly Fastlicht and his fellow researchers will eventually be able to solve it.

Despite this being clearly a scientific book written with all the seriousness and restraint required by science, Dr. Fastlicht's book is most readable, certainly not one of its less important merits.

We hope that this work will be widely circulated and known among the Mexican people, as well as the reading public of all the world.

*Dr. Alfonso Caso*



## Foreword

Dr. Alfonso Caso, distinguished Mexican anthropologist, wrote an introductory note for the Spanish edition of this book. His words of praise expressed assurance that Dr. Samuel Fastlicht's book would be widely distributed among the Mexican people. The present English edition is in response to a greater interest in the subject. Previous papers by Dr. Fastlicht have received international attention among anthropologists and dentists. No doubt his new work will appeal to a large number of interested readers. The history of medical science is a field that is no longer simply a subject for erudition, but rather one of basic knowledge concerning the paths of discovery and the works of human reasoning. Moreover, the scientific study of medical customs among different isolated cultures has developed a new field of research, ethnoliatics, which illuminates the origin of many present-day beliefs and feelings.

The history of Mexico before the Spanish Conquest is not just a picturesque subject for the author; Fastlicht does not have the attitude of a foreigner who describes strange practices to a learned world. He is a scientist analyzing facts that belong to his society.

The old colonial or explorer attitude describing customs of a "primitive" country as compared with Western models has been a handicap for scientific analysis and for real understanding of a different culture. Without the natural way of an investigator humble and devoid of pre-

judices, all meanings of ethnic practices, beliefs, and habits will be hidden by mental predispositions. Fastlicht is an original investigator and looks at his subjects in the natural light of their context.

The first part of the book presents an image of Mexican culture at the time the Spanish conquerors arrived; they systematically destroyed all social, religious and familiar practices in an effort to stamp out all evidence of the previous civilizations. Fortunately, several learned priests in charge of enforcing the new religion were impressed by the magnitude and meaning of such an old and profound culture. They discovered social and moral values in many customs and traditions, as well as evidence of real empirical knowledge in some professional practices. Spanish priests became chroniclers of old pre-Hispanic cultures and left us the valuable testimonies which Fastlicht presents. The author also outlines the evaluation of contemporary anthropologists and historians.

In the second part Fastlicht describes mutilations, filings, and inlays of teeth of pre-Columbian Mexicans. In this field the wide experience of the author shows itself in his studies of the Mexican Museum of Anthropology's great collection of teeth. He took X-ray plates and made chemical analyses of implanted materials, cements, and adhesives. Fastlicht includes a critical analysis of previous reports and scientific data on the origin of so-called "American" jade. This description is a su-

perior piece of work in itself. The author also describes the adhesive materials used for inlays.

The final part is devoted to an account of the documental sources available for the study of pre-Columbian dentistry; he makes his personal judgment about those materials. Undoubtedly this chapter will be of great interest to medical historians.

We commend Dr. Fastlicht's work as a valuable contribution to pre-Columbian bibliography. We hope that many readers will find inspiration for new research in this field, so rich in literary works and so lacking in scientific contributions.

*Efrén C. del Pozo, M.D.*

## Preface

The present work brings together in one volume a scattered and diverse collection of articles and studies by this author that have appeared in various publications over a period of years. The author would like to make these data available to the student and researcher as a testimony to the existence of a developed dental culture in Mexico long before the Spanish Conquest, 1519–1521.

This work is divided into three parts. The first briefly describes the cultural and historical setting in which these dental practices occurred. The second deals with dental mutilations, including filing and inlaying. The third part, drawing upon a substantial body of data and descriptions written by early chroniclers, concerns diseases of the mouth and their treatment as they were known in pre-Columbian Mexico.

On dental mutilations, considerable osteological material found exclusively in pre-Columbian tombs, burial grounds, or graveyards provides tangible evidence of these practices during this period.

Whether these practices were among the dental arts of the period or were the province of the lapidary or jeweler, with the tacit acceptance of the pre-Columbian dentist, cannot be categorically stated. The least that can be said is that the inlaying of semiprecious stones in the sound teeth of living persons indicated either a limited knowledge of dental anatomy or a disdain of that knowledge and of the dental welfare of the persons so

treated, or both. We will see also that the social and cultural environment of the period may well have overcome any reservations that either patient or practitioner may have had regarding dental mutilations; prestige or presentability may have, as in time immemorial, surpassed comfort or health as justification for these inlays. The author first became interested in dental work among the ancient Mexicans in hope of finding artificial teeth, dental bridges, or prostheses in general, since these early practitioners knew how to represent teeth in their most varied aspects in both stone and clay. We also expected to find examples of dental fillings made from the various materials that artists and lapidaries had at hand for making artificial eyes and teeth, so frequently found in reproductions of animals and idols. They had an extensive knowledge of cements or adhesives used in different types of inlays, such as mosaic masks or inlaid handles. (One may see an example on the flint knife in the British Museum.) These artisans knew how to make inlaid plaques with turquoise and jade. Thousands of such objects may be admired in various existing collections. Thus we were obliged to make a study of the cement used to hold the round stone inlays, and to test their resistance to the oral medium. We compared our results with those obtained in similar research projects carried out in other countries. Cement and adhesives are further considered in another chapter.

Despite our hopes, to a certain extent justified by having found some prostheses, we have been unable to find any bridges, artificial teeth, or dental fillings.<sup>1</sup> What we have found is a fascinating world of magnificent dental inlays, masterfully worked in jade, jadeite, turquoise, hematite, and pyrite.

In 1947, for the first time, we took X rays of the then-available pieces in the Mexican Museum of Anthropology. We wanted to confirm the existence of disorders and lesions in the maxillaries of the ancient Mexicans and also to confirm with X rays that dental extractions were made on living people many years before their deaths.<sup>2</sup>

We set about studying dental mutilations in the same way and have been able to prove that all such work—the examples of filing as well as the innumerable inlays now known—was done on live subjects. This is confirmed by the X rays which show periodontal abscesses that developed as a result of damage to the dental pulp.

We are now certain that these mutilations, or rather decorations, were done during the individual's lifetime and not as post-mortem decorations, as some earlier authors, such as E. T. Hamy, believed.<sup>3</sup>

We are profoundly grateful to the authorities of the British Museum for opening their cases early in the morning, before the customary visiting hours. These cases are closed to the general public. We have been privileged to hold in our hands all the British Museum objects described

here. In some cases, the mosaic work is mounted on skulls, but mostly on wooden objects, and is apparently held in place with tar or bitumen. All the mosaics are set into a black and quite sticky base; they are very well preserved.

We should like to express our appreciation very particularly to B. E. Kent, chemical engineer, Ministry of Technology, London, for having carried out the X-ray diffraction tests of the dental cement, and for his intelligent interpretation of the results, as well as for his interest in the investigation.

Before concluding these notes, I should like to say that I am deeply indebted to Dr. Alfonso Caso for having introduced me to pre-Columbian Mexican studies. This distinguished archeologist and brilliant lecturer, whose words give an irresistible fascination to everything related to the ancient Mexican cultures, served as my inspiration and gave me the incentive to extend a pleasant interest into serious study and research. I was his student at the old museum on Moneda, taking time from my professional duties. Later on, for many years, with growing enthusiasm I attended his magnificent Monday lectures at the Colegio Nacional where my dear and unforgettable friend Salo Hale saved my seat, even though the hall was filled to capacity. Dr. Caso's lectures were the stimulus and inspiration that brought me to the study of pre-Columbian dentistry. He was also the first to tell me of the exciting discovery of the *Badianus Manuscript*, in which I have since found much

1. In the Fourth Pan-American Congress, which took place in Guatemala in May 1969, Dr. Oscar Cifuentes Aguirre presented a prosthesis found in a skull of Maya origin. It consisted of an artificial molar made of jade and used in the mandible, according to the author. To make clear the existence of the so-called Maya bridge see page 55 and Figs. 33a to d.
2. Fastlicht, Samuel, *Estudio Dental y Radiografico de las Mutilaciones Dentarias*, *Anales del Instituto Nacional de Antropologia e Historia*. (Vol. 2 Mexico 1947), pp. 7-13.
3. Hamy, E. T., "Les Mutilations Dentaires au Mexique et dans le Yucatan", *Bulletin de la Societe d'Anthropologie de Paris*. 3e. Serie, Vol. 5 (Paris: 1882).

interesting information on the subject of dentistry as practiced in Mexico just after the Conquest. I should like to pay most sincere homage to him here.

Among the many authorities in the former Museum of Anthropology, and later in the present National Institute of Anthropology and History (Mexico), to whom I owe a debt of gratitude for the endless help and information they were kind enough to extend to me, I should like to mention the physical anthropologists: Professor Javier Romero, Dr. Eusebio Dávalos Hurtado, Professor Arturo Romano, Dr. Daniel Rubín de la Borbolla, and the anthropologist, María Teresa Jaén. Without their cooperation, I should not have had the opportunity to periodically revise the authentic osteological material that has turned up and continues to turn up in every new discovery of pre-Columbian tombs. To all of them go my sincere thanks for having so generously placed all of this material at my disposal. To Ramón Enríques Rodríguez, the official photographer of the National Institute of Anthropology, my acknowledgement of his excellent work.

Let me also express deep appreciation to my secretary, Miss Gladys Maribona, for her dedicated enthusiasm and patience in typing and retyping the pages of the manuscript.

I wish to extend my sincere gratitude to my friends, Dr. Germán Somolinos, historian of Mexican medicine, for his help in the preparation of the manuscript, Dr. Efrén C. del Pozo, who kindly wrote the foreword, and that erudite writer, Don Felipe Teixidor, who did me the great service of reading, criticizing, and commenting

on the Spanish manuscript. Marynette Heltzen and Ethel Comstock did the preliminary work on the English translation. Finally, I wish to acknowledge the excellent work of Mr. Clarence N. Anderson, University Editor and Assistant Professor of Journalism at the University of Southern California, who took special interest and read the entire translation thoroughly, helping with his scholarly advice to assure scientific accuracy in the English version.

In addition to his own, many hours of voluntary time were given to the final English translation by part-time as well as full-time members of his staff.

Thus the English manuscript has benefited from rigorous, sensitive review by a host of friends, associates, and fellow scholars to whom I will be ever grateful. I should also like to express my appreciation to Helen, Graciela and Jorge, my children, who inspired and encouraged the publication of the English edition.

To Dr. Harold Hillenbrand, many thanks for his continued interest and wise assistance with this publication, and to Mr. Horst Wolfgang Haase, publisher, for the splendid presentation of this book by "Quintessence".

For me it is a pleasure to recognize the efficiency and responsibility shown by Mr. Gerhard Kirsten during the production of this book.

And now, with whatever shortcomings it has, which I am the first to admit there may be, I offer the reader this study, written with the deepest interest in, and devotion to ancient Mexican cultures.

Mexico City, January 1976

S.F.



