

Accepted Manuscript

Title: Forensic aspect of cremations on wooden pyre

Author: Veronique Alunni Gilles Grevin Luc Buchet Gérald Quatrehomme



PII: S0379-0738(14)00234-5
DOI: <http://dx.doi.org/doi:10.1016/j.forsciint.2014.05.023>
Reference: FSI 7624

To appear in: *FSI*

Received date: 16-12-2013
Revised date: 5-3-2014
Accepted date: 27-5-2014

Please cite this article as: Veronique Alunni, Gilles Grevin, Luc Buchet, Gérald Quatrehomme, Forensic aspect of cremations on wooden pyre, Forensic Science International <http://dx.doi.org/10.1016/j.forsciint.2014.05.023>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Forensic aspect of cremations on wooden pyre

Veronique Alunni M.D., Ph. D.^{a,*} alunni.v@chu-nice.fr, Gilles Grevin^b g.grevin@voila.fr,
Luc Buchet^b luc.buchet@cepam.cnrs.fr, Gérald Quatrehomme^a quatrehomme.g@chu-nice.fr

^aLaboratoire de Médecine Légale et d'Anthropologie médico-légale, Université de Nice Sophia Antipolis, Faculté de Médecine, 28 Avenue de Valombrose, 06107 Nice Cedex 2, France

^bCEPAM (Cultures et Environnements, Préhistoire, Antiquité, Moyen Âge), UMR7264-CNRS Université Nice Sophia Antipolis, Campus Saint-Jean d'Angély 3, 24 Avenue des Diables Bleus, 06357 Nice Cedex 4, France

*Corresponding author. Tel. : +33612550583 ; fax : +33492034827.

Abstract

Three cases of cremation on open-air pyres are described. One was classified as a suicide and two as homicides. Fire duration was estimated at approximately 1 hour, close to 2 hours and more than 3 hours respectively. The position of the remains, the colour alteration of bone, and the burned bone fractures biomechanics are discussed. Knowledge of normal burn patterns in fire and detection of perimortem lesions are essential. These three cases highlight the specific thermal alterations and burning processes in accordance with fire duration. In each case, careful investigation yielded clues as to the manner of death. Close cooperation between law enforcement and forensic pathology investigators is required in order to correctly identify the circumstances of death.

Keywords

Pyre; Cremation; Forensic anthropology; Thermal destruction of corpses; Homicide; Suicide; Forensic aspects of cremation on wooden pyres

Introduction

In forensic practice, cases where cremation results from an accident or suicide are more frequent than those where fire has been used to destroy or cover up physical evidence in homicide [1,2]. Nonetheless, all cases involving cremated remains should be carefully investigated to rule out homicide [3,4]. Individuals who want to get rid of evidence often presume that fire can completely incinerate human tissue [5]. But a body does not turn to ashes even after prolonged exposure to fire [6,7], or the use of a cremator [8]. After exposure to intense heat, skeletal remains usually exhibit a “pugilistic attitude” with moderate

Download English Version:

<https://daneshyari.com/en/article/6552517>

Download Persian Version:

<https://daneshyari.com/article/6552517>

[Daneshyari.com](https://daneshyari.com)