

Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde  
Deutsche Gesellschaft für Rechtsmedizin



INTERDISZIPLINÄRER  
ARBEITSKREIS FÜR  
FORENSISCHE  
ODONTO-STOMATOLOGIE



# NEWSLETTER



GERMAN ACADEMY OF FORENSIC ODONTOSTOMATOLOGY

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Organ des Interdisziplinären Arbeitskreises für Forensische Odonto-Stomatologie  
der Deutschen Gesellschaft für Zahn-, Mund- und Kieferheilkunde und  
der Deutschen Gesellschaft für Rechtsmedizin

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*Lectori benevolentissimo salutem dicit*

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## Editorial

Liebe Kolleginnen und Kollegen, liebe Freunde des AKFOS, auch das Jahr 2013 ist nun bald vorbei und es erfolgen -wie jedes Jahr- die Rückblicke auf das was war. Die 37. Jahrestagung in Mainz ist erfolgreich verlaufen und die Vorbereitungen für das nächste Jahr laufen bereits. Herausragend war in diesem Jahr der Vortrag von Professor Dr. Walther Parson aus Innsbruck, welcher über den Schiller-Schädel aus molekulargenetischer Sicht berichtete. Insgesamt war das Programm mit den verschiedenen Themenbereichen der Forensischen Zahnheilkunde bestückt, sodass für jeden Teilnehmer etwas dabei gewesen sein sollte. Es wurden außerdem vier neue Ehrenmitglieder begrüßt: Dr. Jean-Claude Bonnetain, Dijon/Frankreich, Dr. Dr. Jean-Marc Hutt, Strasbourg/Frankreich, Reiner Napierala, Aachen, und Dr. Michel Perrier, Lausanne/Schweiz. Aus dem AKFOS heraus waren auch 2013 viele Aktivitäten zu verzeichnen, z.B. mit dem Besuch der Jahrestagung der französischen Gesellschaft AFIO. Der Taifun Haiyan Anfang November auf den Philippinen mit über 5.000 Toten erinnerte an den Tsunami 2004. Auch hier konnte ein Mitglied des AKFOS dem BKA unterstützend zur Seite gestellt werden. Dies ist auch der Grund, dass wir trotz aller Schwierigkeiten für die Kolleginnen und Kollegen, welche sich für einen Einsatz bei Katastrophen bereit erklärt haben, wieder einen Lehrgang im Jahr 2014 organisieren. Für das bevorstehende Weihnachtsfest und das Neue Jahr wünscht der Vorstand alles Gute, viel Erfolg und vor allem Gesundheit.

Prof. Dr. med. R. Lessig  
1. Vorsitzender

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und der Deutschen Gesellschaft für Rechtsmedizin (DGRM)

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**Der Arbeitskreis verfügt über einen Internetauftritt: [www.akfos.org](http://www.akfos.org)**

**Hier können alle AKFOS-Newsletter und Informationen eingesehen werden.**

## **Hinweis der Redaktion:**

**The International Organisation of Forensic Odontostomatology (IOFOS)  
is available: [www.iofos.eu](http://www.iofos.eu)**

**L' Association Française d' Identification Odontologique (AFIO)  
is available: [www.afioasso.org](http://www.afioasso.org)**

**The American Society of Forensic Odontology (ASFO)  
is available: [www.asfo.org](http://www.asfo.org)**

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DGZMK-Präsident Prof. Dr. Dr. Henning Schliephake und Dr. Karl-Rudolf Stratmann  
(Foto: Grundmann)

### **Goldene Ehrennadel der DGZMK für Dr. Karl-Rudolf Stratmann**

Am 7. November 2013 wurde in der Frankfurter Paulskirche im Rahmen des Festakts zur Eröffnung des Deutschen Zahnärztetages 2013 Herr Dr. Karl-Rudolf Stratmann aus Köln mit der Goldenen Ehrennadel der Deutschen Gesellschaft für Zahn-, Mund- und Kieferheilkunde (DGZMK) ausgezeichnet. Diese Ehre wurde Kollege Stratmann zuteil für sein jahrelanges hervorragendes Engagement als Generalsekretär der DGZMK und seinen unermüdlichen Einsatz als engagierter Lehrer in den Fortbildungsstrukturen der Akademie Praxis und Wissenschaft (APW), der Arbeitskreise und Fachgesellschaften.

Zu dieser hohen Auszeichnung gratuliert der AKFOS-Vorstand auf das herzlichste.

Prof. Dr. Rüdiger Lessig, 1.Vorsitzender

Prof. Dr. Dr. Ludger Figgner, 2.Vorsitzender

Dr. Dr. Claus Grundmann, Sekretär

## **37. Jahrestagung des Arbeitskreises für Forensische Odontostomatologie (AKFOS)**

Am 19.10.2013 fand im Hörsaal der Klinik für Zahn-, Mund- und Kieferheilkunde der Johannes-Gutenberg-Universität Mainz die 37. Jahrestagung des Arbeitskreises für Forensische Odontostomatologie statt.

Bei der Begrüßung konnte der AKFOS-Vorsitzende, Prof. Dr. Rüdiger Lessig, Teilnehmerinnen und Teilnehmer aus Frankreich, Norwegen, Österreich, der Schweiz und Deutschland begrüßen.

Den diesjährigen Festvortrag hielt Prof. Dr. Walther Parson, Leiter der Abteilung für Forensische Molekulargenetik am Institut für Rechtsmedizin der Universität Innsbruck und seit 2009 Mitglied der Leopoldina -Sektion Pathologie und Rechtsmedizin- in Halle/Saale. Die Leopoldina wurde 1652 als Nationale Akademie Deutschlands gegründet und ist heutzutage eine der ältesten Wissenschaftsakademien der Welt.

Nach dem Vortrag zur Mundgesundheit von Friedrich Schiller, den Priv.-Doz. Dr. Wilfried Reinhardt, Universität Jena, auf der 36. AKFOS-Jahrestagung 2012 gehalten hatte, stellte Prof. Parson in diesem Jahr den "Schiller-Code" vor: eine molekularbiologische Untersuchung zu den in der Weimarer Fürstengruft befindlichen Schädeln bzw. Skelette.

Im Juni 2006 beauftragte Hellmut Seemann, Präsident der Klassik-Stiftung Weimar, Prof. Parson mit der Untersuchung der beiden in der Weimarer Fürstengruft befindlichen Schädel: beide wurden in der Vergangenheit dem Dichturfürsten Friedrich Schiller zugeordnet. Es ist ein uralter Streit: schließlich hatte der Anatom August von Froriep im Jahre 1911, d.h. 106 Jahre nach Schiller's Tod, ein weiteres Skelett als das "echte" Schiller-Skelett bekanntgegeben: seither ruhten zwei "Schiller-Särge" in der Fürstengruft. Neuere Untersuchungen konnten jedoch zeigen, dass es sich bei dem von August von Froriep gefundenen Schädel um den von Luise von Göchhausen, einer Hofdame von Anna Amalia, handeln würde.

Parson erläuterte, dass bereits 1883 festgestellt wurde, dass die Gipstotenmaske des 1805 verstorbenen Friedrich Schiller mit dem Schädelabguss von 1827 nicht identisch war. Anhand neuerer genetischer Untersuchungen erläuterte Parson, dass keine verwandtschaftlichen Beziehungen der Fürstengruft-Skelette zu den drei Schwestern von Friedrich Schiller sowie zu seinen beiden leiblichen Söhnen vorlägen. Theoretische Möglichkeiten, dass Friedrich Schiller ein untergeschobenes Kind sei oder Schiller nicht der leibliche Vater seiner beiden Söhne sei, wurden von Parson ausführlich erläutert. Folgerichtig wurden die Skelettanteile aus dem Schiller-Grab entfernt, so dass nur noch ein Kenotaph übrigblieb. So liegt nun Johann Wolfgang Goethe alleine in dieser Gruft.

Im zweiten Teil der diesjährigen Jahrestagung standen die zahnärztlichen Begutachtungen im Vordergrund: während Dr. Karl-Rudolf Stratmann, Köln, eindrucksvoll über Gutachten im Zusammenhang mit Berufskrankheiten,

berufsbedingten Zahntraumata, ungünstigen Behandlungsverläufen sowie das Ablehnen eines Gutachters wegen Befangenheit (mangelnde Objektivität, fehlende fachliche Kompetenz) referierte, stellte Dr. Björn Krämer, Mannheim, das Gutachterwesen der Primär- und Ersatzkassen sowie die Sachverständigen-Tätigkeit bei Gericht vor: er sprach sowohl über Planungs- als auch Mängelgutachten und berichtete über Beispiele aus der Praxis: "bitterer Geschmack einer Brücke", "beim Zementieren der Krone 46 Zement auf die Zähne 31 und 41 getropft", "Brückenversorgung auf 6 Implantaten", "Ästhetik von 6 Einzelkronen" usw.

Anschließend erläuterte Dr. Dr. Claus Grundmann, Duisburg, die zahnärztlichen Identifizierungsmaßnahmen, die nach einem Verkehrsunfall in Ägypten durchgeführt wurden: im Dezember 2012 wurden beim Zusammenstoß zweier Minibusse sieben Personen tödlich verletzt worden - darunter vier Mitglieder einer Crew eines Deutschen Ferienfliegers. Zahnmedizinische Vergleichsuntersuchungen der ante-mortalen Unterlagen (Zahnarzt-Karteikarten und Röntgenbilder) mit den post-mortalen Zahnbefunden -einschl. Röntgendokumentation- erlaubten eine zweifelsfreie Zuordnung zu den vermuteten Personen.

In einem weiteren Vortrag, der gleichzeitig durch eine Posterpräsentation unterstützt wurde, berichtete die Zahnärztin Franziska Laura Fritsch aus Frankfurt über den Einsatz der digitalen Volumentomographie bei der Altersbestimmung anhand einer von ihr durchgeführten in-vivo-Studie. Sie berichtete über 50 DVT's von 12- bis 68-jährigen Personen, die sie mithilfe der VoXim-Software ausgewertet hatte.

Das Nachmittagsprogramm eröffnete Dr. Andreas Müller-Cyran, München, mit einem beeindruckenden Referat zum Thema: "Wenn aus Vermissenden Hinterbliebene werden: psychosoziale Notfallversorgung (PSNV) in Katastrophen und Großschadenslagen". Müller-Cyran, Rettungsassistent, Theologe und Psychologe hat als Gründer und fachlicher Leiter des weltweit ersten Kriseninterventionsteams (KIT) in München im Jahre 1994 reichhaltige Erfahrung mit der peritraumatischen Akutintervention: dem Aufbau eines hocheffizienten Netzes der Notfallseelsorge, Krisenintervention und psychosozialen Notfallversorgung für Menschen, die abrupt mit dem Tod konfrontiert worden sind: Überlebende von Unglücksfällen, Angehörige und Rettungskräfte.

Dabei unterscheidet er auch in Überlebende (die oft Ersthelfer sind), Augenzeugen (die oft zum Ersthelfer werden), Vermissende (die teilweise Augenzeugen sind) sowie Hinterbliebene und teilt die Zeit nach einer Katastrophe in Akutphase (Stunden), Übergangsphase (Tage) und Langzeitphase (Wochen bis Jahre) ein. Er betonte die Wichtigkeit, dass Vermissende regelmäßig Informationen - z.B. zum Stand der Bergungen etc.- bekämen. Das Leid um das "Nicht-Wissen" sei regelmäßig größer als das Leid "um's Wissen". Oft würden sich Schicksalsgemeinschaften von Hinterbliebenen bilden, die mitunter einer längeren Betreuung bedürften. Wichtig sei, dass Einsatzkräfte zu keinem Zeitpunkt mit Hinterbliebenen in Kontakt treten würden.

Im folgenden wurden vier AKFOS-Ehrenmitglieder ausgezeichnet, die dem Arbeitskreis für Forensische Odontostomatologie seit Jahren ihre Treue erweisen und durch aktive Mitarbeit zum Wohle des Arbeitskreises tätig sind:

Dr. Jean-Claude Bonnetain, Dijon/Frankreich  
Dr. Dr. Jean-Marc Hutt, Strasbourg/Frankreich  
Reiner Napierala, Aachen  
Dr. Michel Perrier, Lausanne/Schweiz



Von links nach rechts: Grundmann, Perrier, Bonnetain, Hutt, Napierala und Lessig  
(Foto: privat)

Mit eigenen Vorträgen stellten zwei der vier Ehrenmitglieder ihre derzeitigen forensischen Aktivitäten vor:

Dr. Michel Perrier berichtete über die Rolle der Fotografie in der Odontologie: anhand von Beispielen schilderte er die Bedeutung von Fotos und Filmen zur Personen-Identifizierung: die Unterlagen des Leibzahnarztes Dr. Hugo Blaschke zur Identifizierung von Adolf Hitler als historisches Beispiel sowie Melanie Thornton (Popstar; 1967-2001) und die Mitglieder der Sonnentemplersekte, die durch rituelle Mord- und Selbstmordhandlungen ihren Tod fanden.

Werbung ist in der heutigen Zeit auch für Ärzte und Zahnärzte von erheblicher Bedeutung. Ein Blick in die Medien belegt dies. Aber dürfen (Zahn-)Ärzte werben und wo sind die Grenzen? Auf diese ebenso aktuellen wie interessanten Fragen ging Reiner Napierala in seinem juristischen Vortrag ein: nach einem kurzen Rückblick auf die restriktive Rechtsprechung in der Vergangenheit verdeutlichte der Referent die vom Bundesverfassungsgericht vor etwas mehr als zehn Jahren eingeleitete Liberalisierung im Werberecht der (Zahn-)Ärzte. Eine zentrale Rolle spielt dabei die Entscheidung des Bundesverfassungsgerichts vom 23.07.2001 (1 BvR 873/00): In dieser und in nachfolgenden Entscheidungen hat das Bundesverfassungsgericht die durch Art. 12 GG geschützte Freiheit zur Außendarstellung betont und konkretisiert. Es wurde im Vortrag deutlich, dass auch (Zahn-)Ärzte werben dürfen und dass es insoweit nur zwei Grenzen gibt: Verboten ist allein irreführende oder sachlich unangemessene Werbung. Während das Irreführungsverbot eine allgemein anerkannte Grenze für jede Art von Werbung darstellt, nimmt das Verbot sachlich

unangemessener Werbung Bezug auf die herausragende Bedeutung des ärztlichen Wirkens und auf das Vertrauen der Bevölkerung in die Qualität und Integrität der (Zahn-)Ärzeschaft. Beide Grenzlinien wurden in dem Vortrag sodann an Hand zahlreicher Beispiele aus der Rechtsprechung wie folgt verdeutlicht: Werbung mit akademischen Titeln (BGH, 18.03.2010, 1 ZR 172/08: „Master of Science Kieferorthopädie“); Werbung mit der Nähe zu Facharztbezeichnungen (BVerfG, 01.06.2011, 1 BvR 233/10: „Zahnarzt für Implantologie“); Werbung mit Zentren (BVerfG, 07.03.2012, 1 BvR 1209/11: „Zentrum für Zahnmedizin“); Internetwerbung (OLG Karlsruhe, 07.05.2012, 6 U 18/11: „Spitzenmediziner, Top-Experten, Koryphäen“; BGH, 01.12.2010, I ZR 55/08: „Zweite Zahnarztmeinung“; LG Köln, 21.06.2012, 31 O 767/11: „Groupon Bleaching“ für 69 € statt 169 €). Abschließend wagte der Referent die Prognose, dass die Liberalisierung im Werberecht wohl fortschreiten wird.

Dass nationale und internationale Anpassungen im Kontext von Katastrophenopferidentifizierungen regelmäßig erforderlich sind, verdeutlichte Kriminalhauptkommissar Attila Höhn vom Bundeskriminalamt in Wiesbaden in seinem Vortrag: im Laufe des Jahres 2014 sei mit einer neuen Identifizierungssoftware sowie mit neuen Formblättern zu rechnen: dabei würde der Formular-Umfang reduziert, die bisherigen Dental-Codes ausgedünnt und zukünftig ausschließlich „markante“, d.h. auswerterelevante Codes verwandt. Zukünftig gäbe es mehr visuell relevante und weniger materialbezogene Bezeichnungen. Der bisherige Vergleichsbericht würde neu gestaltet und erstmals in primäre und sekundäre Identifizierungsmerkmale aufgeteilt. Aufgrund der bevorstehenden Änderungen seien für das Jahr 2015 gemeinsame Experten-Schulungen von BKA und AKFOS geplant.

Abschließend berichtete Kriminalhauptkommissar Heinz Lindekamp, Kreispolizeibehörde Wesel, über eine Familientragödie, die mit Verurteilungen der Angehörigen wegen Totschlags endete. Ohne die genauen kriminalpolizeilichen Ermittlungen wäre dieser Fall möglicherweise als alltäglicher Suizid gewertet worden: ein 80-jähriger Mann versuchte sich mit einer Waffe das Leben zu nehmen. Als dies nicht gelang, kam es zum Einsatz eines Insulin-Bestecks, um den begonnenen Suizidversuch mit einer Überdosis Insulin zu beenden. Als auch diese Massnahme nicht zum endgültigen Tod führte, wurden auf den Suizidanten durch ein Familienmitglied zwei weitere Schüsse aus naher Entfernung abgegeben. Medizinisch galt es zu beweisen und juristisch zu bewerten, dass der Suizidant zum Zeitpunkt des Nachschusses noch gelebt hat. Wie gesagt: ein nicht-alltäglicher Fall der Deutschen Kriminalgeschichte.

Bei der anschließenden Mitglieder-Versammlung berichteten die Vorstandsmitglieder über ihre vielfältigen Aktivitäten in den abgelaufenen 12 Monaten.

Prof. Dr. Lessig verabschiedete die Teilnehmerinnen und Teilnehmer der AKFOS-Jahrestagung 2013 und lud gleichzeitig zum 38. Jahrestagung des Arbeitskreises für Forensische Odontostomatologie ein, die am Samstag, den 25.10.2014, im Hörsaal der Klinik für Zahn-, Mund- und Kieferheilkunde der Johannes-Gutenberg-Universität Mainz stattfinden wird.



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**“Association Française d'Identification Odontologique” (AFIO)  
XXIII<sup>ème</sup> Congrès**



(Quelle: Raillon (AFIO))

Die Jahrestagung von AFIO -Schwestergesellschaft von AKFOS- fand vom 19. bis 20. September 2013 unter der Leitung des AFIO-Präsidenten Dr. Guy Collet, Orleans, im „Quartier des Célestins“ -Hauptquartier der Republikanischen Garde- im Zentrum von Paris statt: hierbei handelt es sich um das Anwesen der Gendarmerie Interieur mit ihren Kavallerie- und Infanterie-Regimenten („Honneur, Service, Protocole, Sécurité, Prestige“) einschließlich eines Musikcorps.

Themen der diesjährigen AFIO-Jahrestagung, an der Kolleginnen und Kollegen aus Frankreich, Belgien und Deutschland teilnahmen, waren die Identifizierungen von

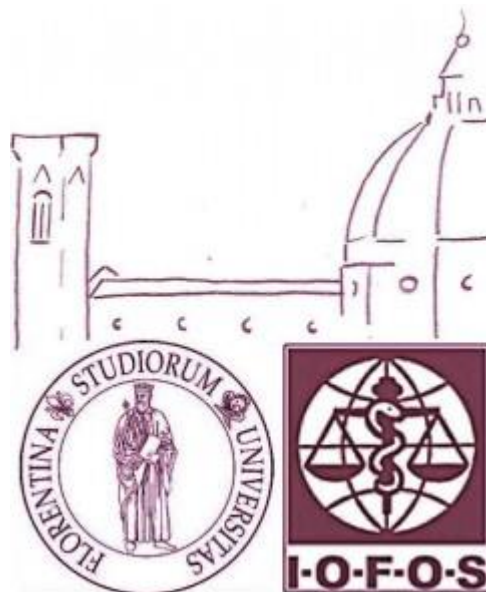
Verstorbenen mittels Zahn- bzw. DNA-Vergleichsuntersuchungen, Biss- und Körperverletzungen, Zahnaltersschätzmethode nach LAMENDIN und JOHANSON sowie die dental-juristischen Bereiche wie Misserfolge der Wurzelkanalbehandlung, Mitwirkung beim sexuellen Missbrauch etc. Auch ethische Aspekte der forensischen Zahnmedizin, das Münchhausen-Syndrom sowie das psychologische Portrait eines Experten der forensischen Zahnmedizin gehörten zum diesjährigen Tagungsprogramm.

Selbstverständlich wurde für alle TeilnehmerInnen der diesjährigen AFIO-Tagung eine Führung mit Besichtigung des „Quartier des Célestins“ angeboten: Einblicke in Pferdeställe, Sattlerei, Hufschmiede, Tierklinik und Museum: ein imposantes und mit Leben gefülltes Anwesen, das seinesgleichen in Deutschland vergeblich sucht.

Als Ergebnis der zweitägigen Tagung konnte festgestellt werden, dass sich die französischen Kolleginnen und Kollegen mit ähnlichen forensich-odontologischen Themen beschäftigen wie die Nachbarländer es auf ihren eigenen Kongressen ebenfalls tun. Die AFIO-Jahrestagung 2013 war von den Verantwortlichen perfekt vorbereitet und durchgeführt worden: dazu gehörten nicht nur die zweitägige Tagung, sondern beispielsweise auch ein Cocktail-Empfang zum Kennenlernen und kollegialen Gedankenaustausch in der im Elsässischen Stil gestalteten „Brasserie Bofinger“ von 1864 – die älteste Gaststätte von Paris: unweit des historischen Place de la Bastille gelegen.

**Kontaktadresse:** Dr. Dr. Claus Grundmann - AKFOS-Sekretär

## **IOFOS: Internationaler Kongress 2013**



(Quelle: IOFOS)

Vom 29. bis 31. August 2013 fand die diesjährige IOFOS-Tagung in Florenz statt. Unter der Leitung der IOFOS- und diesjährigen Tagungspräsidentin Prof. Dr. Vilma

Pinchi, Italien, nahmen über 200 TeilnehmerInnen aus fünf Kontinenten an dieser dreitägigen Veranstaltung teil. Es handelt sich um eine der wichtigsten Veranstaltungen der dentalen Forensik weltweit. So beschäftigten sich insgesamt über 120 Vorträge und Poster mit den klassischen Themen der forensischen Odontostomatologie: Identifizierungen, Massenkatastrophen, zahnärztliche Behandlungsfehler, Bisspuren-Analysen, Altersschätzungen, ethische Aspekte sowie die verschiedenen Ausbildungen in Forensischer Odontostomatologie - beispielsweise in Zagreb, Mailand und Brasilien.

Die Eröffnungszeremonie des diesjährigen IOFOS-Kongress fand an historischer Stelle statt: im Salone Dei Cinquecento des weltberühmten Palazzo Vecchio im Herzen von Florenz: u.a. im Beisein des Bürgermeisters von Florenz, Matteo Renzi, des Rektors der Universität von Florenz, Prof. Dr. Alberto Tesi, des Präsidenten der International Academy of Legal Medicine (IALM), Prof. Dr. Santo Davide Ferrara und des Vorsitzenden der Forensic Odontology Working Group -DVI Standing Committee Interpol- Prof. Dr. Alain Middleton. Anschließend waren alle Anwesenden zu einem Welcome Dinner im wunderschönen Palazzo Nonfinito -ebenfalls in der historischen Innenstadt von Florenz gelegen- eingeladen.

Selbstverständlich kann -aufgrund des Umfangs der diesjährigen Tagung- nur auszugsweise vom aktuellen Tagungsprogramm berichtet werden - hier die wichtigsten Eindrücke: sehr eindrucksvoll schilderte Prof. Dr. John Clement, Melbourne, Australien, die Entwicklung der Forensischen Odontostomatologie vom "Hobby Status" zur anerkannten Wissenschaft. Hierzu zählen beispielsweise die Identifizierung menschlicher Überreste aus der frühen Bronze-Zeit -Ergebnisse einer Arbeitsgruppe aus Polen- oder die geschlechtsspezifischen Unterschiede der Eckzahn-Morphologie, die von einer kroatischen Arbeitsgruppe aus Zagreb präsentiert wurden.

Auch ausgefallene Themen wie die forensische Altersschätzung kroatischer Kinder, die mit einer Hypodontie aufgewachsen sind, oder die Bedeutung der Bisspuren-Analyse in Malaysia wurden in diesem Jahr dem Auditorium vorgestellt.

Die Aktivitäten des Norwegischen Disaster Victim Identification (DVI)-Teams wurden von Prof. Dr. Sigrid I. Kvaal und Prof. Dr. Tore Solheim, beide aus Oslo, vorgestellt: die Identifizierung der Opfer der Terrorattacke in Norwegen vom 22. Juli 2011 (mit Zünden einer 950kg-Bombe im Regierungsviertel von Oslo und tödlichen Schussverletzungen bei einem Zeltlager einer sozialdemokratischen Jugendorganisation auf der Ferieninsel Utøya) mit insgesamt 77 Toten sowie das Profil des Terroristen Anders Behring Breivik, der diese grausame Tat alleine und eigenhändig in einer selbstgeschneiderten Polizei-Uniform ausführte. Ein weiterer Einsatz des Norwegischen DVI-Teams erfolgte im Jahre 2013 in Algerien -im Anschluss an einen terroristischen Anschlag auf Industrie-Anlagen- mit 5 toten Norwegischen Staatsbürgern.

Unvergessen bleibt neben den vielen fachlichen Informationen und den kollegialen Gesprächen des diesjährigen IOFOS-Kongress das von Frau Prof. Dr. Vilma Pinchi und ihrem Team organisierte Gala Dinner in der Villa Viviani und seinen einzigartigen Gärten mit einem grandiosen abendlichen Ausblick über die Innenstadt von Florenz

und die umgebenden Hügel der Toskana. Schließlich nutzten die Veranstalter am letzten Kongresstag die Gelegenheit sich im phantastischen Ambiente der Villa Limonaia mit dem angegliederten Museo Stibbert von ihren Gästen zu verabschieden und zum 20. World Meeting der IAFS (International Association of Forensic Sciences) vom 13. bis 18. Oktober 2014 nach Seoul (Korea) einzuladen.

**Kontaktadresse:** Dr. Dr. Claus Grundmann - AKFOS-Sekretär

## **Justizvergütungs- und -entschädigungsgesetz (JVEG)**

Das Justizvergütungs- und -entschädigungsgesetz (JVEG) ist in Deutschland mit Wirkung vom 1. Juli 2004 an die Stelle des Gesetzes über die Entschädigung von Zeugen und Sachverständigen (ZuSEG) und des Gesetzes über die Entschädigung der ehrenamtlichen Richter getreten.

Das JVEG regelt die Vergütung und Entschädigung von Personen, die von einem Gericht oder einer Staatsanwaltschaft -z.B. als Sachverständige- herangezogen werden.

Zum 1. August 2013 sind Änderungen des JVEG im Rahmen des „Zweiten Kostenrechtsmodernisierungsgesetzes“ in Kraft getreten.

Nähere Informationen hierzu unter:

<http://www.gesetze-im-internet.de/jveg/BJNR077600004.html>

**Kontaktadresse:** Dr. Dr. Claus Grundmann - AKFOS-Sekretär

## **Gerichtsmedizinischer Kongresskalender**



Infos zu allen Kongressen, Tagungen, Meetings, Workshops etc. unter:

<http://www.meduni-graz.at/gerichtsmedizin/kalender.html>



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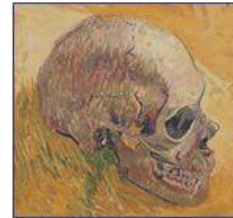
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**10<sup>th</sup> International Course in Forensic Odontology**



Vincent Van Gogh

**Personal Identification by Dental Methods**

**June 23<sup>th</sup> to June 28<sup>th</sup> 2014**

**I**

**Nordic forensic odontology** has for many years been well respected for its systematic approach to identification. This has partly been due to that the forensic odontologists being integrated as members of the Identification Commissions. Academic posts in forensic odontology have further added to the scientific background for the practical work. We want to share with you some of our techniques and experiences.

The **International Organisation for Forensic Odonto-Stomatology (IOFOS)** and the **Nordic Organization for Forensic Odonto-Stomatology (NOFOS)** in cooperation with the Institute of Oral Biology, Faculty of Dentistry, University of Oslo, Norway, invite you to a course in personal identification, with special emphasis on dental methods.

**Aim of the course:**

- to enable the dentist to perform post mortem dental examination and comparison between ante-mortem and post mortem information in single cases as well as in mass disasters
- to enable the dentist to participate in the reconstruction of the identity of a person when comparative identification is not possible
- to enable the dentist to participate in a DVI team after a mass disaster
- to introduce computerized identification programmes

**Place:**

Institute of Oral Biology, *Domus Odontologica*, Rikshospitalet, Gaustad, Oslo

**Topics:**

**Principles of comparative identification**

- Theoretical aspects
- The INTERPOL forms
- Practical work in the mortuary (Institute of Forensic Medicine)
- Obtaining post-mortem dental status of a dead person
- Retrieving relevant information from dental records
- Comparison of ante- and post-mortem data
- Evaluation of similarities and differences
- Formulation of conclusions and summarizing comparable details

**Principles of reconstructive identification**

- Estimation of age, sex, height, race, habits, social status, occupation, etc
- Theoretical aspects
- Practical training
- Contribution to the announcement for a missing person

**Mass disasters**

- Theoretical aspects
- The DVI team
- Computer programs
  - DVI System International
- Mock accident

**Language:** English

**Participants:** Dentists with special interest in forensic odontology, with or without previous knowledge and/or experience.

**Fee:** 9500 NOK (approx. € 1250) covering course expenses, lunches, coffee and a social programme.

**Deadline for application:** April 15<sup>th</sup>, 2014

**APPLICATION FORM**

**10<sup>th</sup> INTERNATIONAL COURSE IN FORENSIC ODONTOLOGY**

**PERSONAL IDENTIFICATION BY DENTAL METHODS**

**OSLO, NORWAY, JUNE 23 – JUNE 28, 2014**

Signature	Family name
First name	First name
Full address	Full address
Phone	Phone
Mobile	Mobile
Home	Home
Work	Work
Emergency address & phone	Emergency address & phone
Insurance	Insurance

**The course will not be arranged if we have less than 10 applicants, and we will limit the participation to 24.**

## DISCUSSION SURROUNDING THE IDENTIFICATION OF HENRY IV'S ALLEGED SKULL RIAUD X.<sup>1,2,3,4</sup>

### **Summary**

On Sunday, 13<sup>th</sup> March 2011, at half past eight in the evening, the French public national television channel France 5 broadcasted a documentary relating the investigation which had led to the "formal" identification of Henry IV's skull. It had been conducted by a team of scientists led by Doctor Philippe Charlier, a forensic medical examiner - a well-known anthropologist.

Throughout the programme, many factors were introduced and proved the identification. And yet, taking a scientific step back and looking at things from a distance with historical knowledge, these factors seem to be questionable. A new perspective which sowed the seeds of doubt on the showcasing of absolute certainty.

### **Keywords**

Legal medicine, History, Skull, Henry IV.

### *Introduction*

On Sunday, 13<sup>th</sup> March 2011, at half past eight in the evening, the French public national television channel France 5 broadcasted a documentary relating the investigation which had led to the "formal" identification of Henry IV's skull. It had been conducted by a team of scientists led by Doctor Philippe Charlier, a forensic medical examiner - a well-known anthropologist. Throughout the programme, many factors were introduced and proved the identification. In the foreground was Doctor Philippe Charlier who was playing the detective and giving details on the central theme of the documentary. A voice-over enlivened the program. It aimed at developing the doctor's line of argument with a semblance of suspense. Despite everything, inconsistencies soon appeared. In 2012, the channel broadcasted a similar programme. This time, a journalist was presenting it but he turned out to be one of Doctor Charlier's close team members. He came to the same results and left the questions raised by the two programmes unresolved. A few times later, the two men also published a book together on the issue.

Each time, arguments were presented, then developed, all of them anchored in a mediated set of popularisation which seemed coherent. It was in the form of a police investigation suitable for all audiences, and which, according to the authors, unavoidably led to the identification of Henri IV's skull. And yet, with little methodology, some scientific step back and historical knowledge, these elements can be disputed, sowing the seeds of doubt on the showcasing of absolute certainty. This

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study aims at being exhaustive as well as presenting counter-arguments, but does not purport to spark off a controversy.

### *The key players*

Doctor Philippe Charlier is a university senior lecturer, staff physician in the department of legal medicine in the Raymond Poincaré de Garches University Hospital and a research worker in the laboratory of medical ethics of Paris Descartes University. He directs a multidisciplinary team who works on projects relating to anthropology, paleopathology and pathography. He also directs the "Pathography" collection published by "de Boccard" Editions. Awarded by the "Académie française" and the National Academy of Medicine for two of his books, he notably allegedly worked on Agnès Sorel's remains, those of Fulk III Nerra Count of Anjou, of Diane de Poitiers, those of Joan of Arc (which, as a matter of fact, were not) and of Henry IV. As for Stéphane Gabet, he is a journalist, the former editor-in-chief of the TV programmes "Secrets d'histoire" and the current editor-in-chief for Galaxie Presse. These two men broadcasted and published major works on the subject:

- Two TV programmes on France 5 (2011, 2012).
- CHARLIER P. & AL. (2010) — "Multidisciplinary medical identification of a French king's head (Henry IV)", in *British Medical Journal*, 341: c6805.
- CHARLIER P. & AL. (2013) — "Genetic comparison of the head of Henry IV and the presumptive blood from Louis XVI (both Kings of France)", in *Forensic Science International*, vol. 226, Issue 1, pp. 38-40.
- CHARLIER P. & AL. (2011) — "Henry IV's mummified head. A forensic identification", in *La Revue du praticien [The practitioner's magazine]*, vol. 60, pp. 1474-1477.
- CHARLIER P. & GABET S. (2013) — "*Henry IV, the enigma of the headless king*", Vuibert (ed.), 156 p. and many others of less importance [CHARLIER & GABET, 2013]...

### *Historical arguments*

They put forward 23 lines of argument (24 if we refer to the history of the itinerary of this relic) which formally identified the skull as being that of Henry IV. Then more recently, Gabet and Charlier guaranteed that the probability of identification was "*higher than 99,99%*" [CHARLIER & GABET, 2013].

Henry IV was buried in Saint-Denis. He was exhumed in 1793 during revolutionary lootings. As he was convinced that it was Henry IV's, Joseph Emile Bourdais bought his alleged skull for 3 frs in an auction sale in 1919. When he died, he entrusted the relic to his sister, Mrs Gaillard. When she died, the relic disappeared without a trace. It was said to have been bought by Mr Jacques Bellanger de Chateaudun, just before Mrs Gaillard died. Jean-Pierre Babelon from the "Académie des Inscriptions et Belles-Lettres" remembered to have received a letter from Bellanger de Chateaudun. The letter mentioned the relic.

I ought to make an observation here. There is no direct information source testifying the absence or the removal of the skull from Henry IV's corpse exhumed in Saint-Denis in 1793. What became of this skull between 1793 and 1919 while many testimonies reported that the body had been placed in a mass grave on October 14th

1793, with other corpses and which were all covered with lime? In this respect, Charlier and Gabet (2013) assured : *"The removal of the head from the body was probably made by a revolutionary in 1793, given the context of deliberate mutilation"*. Not knowing how the head was removed, having no historical evidence, the two men estimated with simple allegation that Alexandre Lenoir, a great collector of relics, had stolen that skull. Who proved it? The two men also maintained: *"Finally, we can affirm with near certainty that the head was removed from the rest of the body with the help of a bladed weapon, in all likelihood a knife or a sabre, in any case a well-sharpened tool. We clearly notice that the cut went through the lower extremity of the neck, between two vertebrae."* Where are the testimonies and the historical documents corroborating this practice on Henry IV's body? There are none. However, there were many witnesses of the exhumations. One testimony, dating back from 1793, reported that a soldier had used his sabre to cut Henry IV's moustache. If no testimony exists of the removal of that head, how is it possible to testify that the head had well and truly been removed during the exhumations of 1793? With that said, how can we be sure that the skull, which Joseph Emile Bourdais owned, was that of Henry IV?

Indeed, Alexandre Lenoir stole the royal relics during the exhumations. They were in a box which was given back to Saint Denis in 1898 and which were authenticated by Lenoir himself. Here are the details of sampled bones whose origin remains doubtful:

- Hugh Capet's shoulder blade;
- Charles V's femur;
- Charles VI's shinbone;
- Charles VII's vertebra;
- Charles IX's vertebra;
- Philippe le Bel's rib;
- Louis XII's rib;
- Catherine de Medici's lower jaw;
- Cardinal de Retz's shinbone.

Moreover, his collections were well-known and identified. Within them, there was no skull [ANONYMOUS, 2012].

Finally, in 1793, there was a real traffic of relics coming from different exhumations in Paris. Turenne's, Voltaire's and even Molière's teeth were subjected to that sort of black market. A royal skull would have cost a fortune. How was it possible to steal it in front of a multitude of witnesses, all the more that Lenoir was well-known and in charge by the Constituent assembly to look after the French heritage? Departing from his duty would have made him lose his head.

### *Scientific argumentation*

Therefore, there were 23 scientific arguments [CHARLIER & GABET, 2013]. Four of them raised interrogation marks allowing a margin of error. None of them stood for formal evidence of identification. Only six made a comparison with elements of various origins. Are those origins certain?

- Arguments #1, 3, 4: male, leucodermic (white-skinned), subject anthropologically caucasian [CHARLIER & GABET, 2013].

These are just physical features. In no instance, they are evidence, or arguments in favor of some sort of identification.



- Argument #2: Mature adulthood. Died at the age of 57 years old [CHARLIER & GABET, 2013].

His actual date of birth remains unknown. Using the word "mature" does not indicate the exact age of the relic. Neither is there a standard deviation. It is just a matter of unclear observation. Here again, the evidence is not there. There are no longer teeth on the skull to make efficient dating.

(Ex.: Ramesses II's mummy (80 years old +/- 5 years with Gustafson's method)).

- Argument #5: Poor oral hygiene. Multiple ante-mortem tooth loss [CHARLIER & GABET, 2013].

Henry IV's poor dentition was well-known as well as his repeated dental fluxions. However, on May 13<sup>th</sup> 1610, Richelieu's decree blunted all the daggers of the palace. Richelieu was exhausted by his banquet guests picking their teeth with their daggers, which properly explained his contemporaries' mouth stuffing caused by too many cavities and their poor oral hygiene (invention of the rounded edge knife). Therefore, Henry IV was not a unique case. Sugar appeared in the French court with Marie de Medici's pastry chefs. Louis XIII loved making cakes and also suffered from serious dental problems [HÉROARD, 1989]. In the TV programme, a tooth, owned by the Tavet-Delacour museum, was presented as being that of Henry IV. A gold thread surrounded it. The skull had lost the 28<sup>th</sup> and the 38<sup>th</sup> teeth post-mortem. This tooth was a 18<sup>th</sup>. Charlier dated the artifice of the prosthesis to the first half of the 20<sup>th</sup> century [DELORME, 2013]. However, the TV programme showed it as Henry IV's. The owners of dental prostheses (gold thread + tooth) and who were Henry IV's contemporaries were well-known (Henry III, Diane de Poitiers). They were often mocked in satirical poems for that matter or exhibited in various gossip columns [RIAUD, 2011]. Babelon in his *Henry IV* (1982) discovered a document dating back to 1576 which indicated that 20 "sols" (halfpennies) were spent per month for toothpicks made in mastic tree for the King of Navarre. He was indeed a great consumer of those toothpicks and in 1581, the register of the Chambers of Accounts of Pau informed us that 15 pounds, 15 "sols" were allocated to the silver cleaner to purchase "gold used to fill the King's teeth." Likewise, master Pierre, the king's surgeon, was allocated 15 "sols" and a gold cautery which weighed 5 crowns. In 1576, he was in the Château de Nérac with his wife, Marguerite de Valois. To seduce her, "he got a supply of gold powder to make his teeth more radiant and his smiles more irresistible [BABELON, 1982]."

The soon-to-be Henry IV was obviously concerned by his bodycare as shown by the purchases of gold to fill his teeth, from 1579 to 1582. Around 1582, there were progressively less purchases of that sort after Marguerite de Valois's departure [ARCHIVES DES PYRÉNÉES ATLANTIQUES (no date)]. If Babelon found such archives, why is there nothing about a dental prosthesis? The use of that tooth is disputable and should not be used to make comparisons.

- Argument #6: Red whitish hairiness, histological confirmation. Postmodern red pigmentation due to lead found in the coffin;

Argument #7: Short-haired [CHARLIER & GABET, 2013].

The head, which Bourdais owned, was almost bald or hairless. Even though Lenoir collected and examined hair samples, he acknowledged that they did not explain whether the skull was bald or not. The portrait (1793), which was painted by Lenoir

during the exhumation, unequivocally depicted his abundant hair. In addition, he added that those samples were of "small" sizes. When he was young, Henry IV was blond red-haired. When he was old, all his portraits made him appear as being grey or white-haired. Not red-haired [RIAUD, 2011].

- Argument #8: Presence of lead residues testifying an extended stay in a lead container [CHARLIER & GABET, 2013].

Can this argument be considered as a reference? Indeed, was Henry IV's body, supposing that the skull is his, the only one to be interred in a lead coffin? It seems to me that the answer is obvious [RIAUD, 2011]. Besides, after the exhumations of 1793, his body had been buried in a mass grave for 200 years.

- Argument #9: Isotopic homogeneity (lead) between Pontoise's samples and those of the head [CHARLIER & GABET, 2013].

Doctor Joël Poupon, biologist toxicologist at the Lariboisière Hospital of Paris, explained to Doctor Charlier that the samples taken from the skull and from different relics, which were attributed to Henry IV and are exhibited in the Tavet-Delacour museum, "had all the same isotopic profile, and in all likelihood the same source and the same lead origin." The results of that experience were strangely absent from the British Medical Journal. In the "Supplementary material", Dr Charlier seriously stepped back from the enthusiasm he previously had shown on television. "Additional analyses were carried out on the samples coming from the skull and the relics of Henry IV of Pontoise. They revealed the presence of great amounts of lead in most of the samples, probably coming from a lead coffin used at the time to inhum aristocratic personalities. The fact that lead compounds, which resulted from the deterioration of the coffin, settled on the remains is a well-known osteoarchaeological phenomenon. Isotopic reports on lead were very similar within and between the two groups (head and samples from Pontoise), with the overlap of a margin of error (more or less two standard deviations). That is why, we can draw the conclusion that the two lead sources are of similar isotopic composition [CHARLIER, 2010]."

After having examined the "Supplementary material" previously quoted, Professor Eric Marcoux from the Institute for Earth Sciences of the University of Orléans made it clear. He is notably the author of *Isotopes of lead and metal parageneses, historical tracers of mineral deposits* [...], Orléans, "Bureau de recherches géologiques et minières" Editions, 1987 [DELORME, 2013]. "There are, indeed, no results showing Pb Isotope geochemistry, only the conclusion that 'the two lead sources are identical', but no data support it. In these conditions, we have to take the author at his word. Unless, in this type of historical publication which I bearly know, it is not necessary to report all the technical results. I am still able to give you the following elements. The isotopic measurements were carried out by a ICP/MS quadrupole, a very efficient device but which is (for now) less accurate than the thermal ionization mass spectrometry (TIMS) regarding isotopic measurements. The uncertainty, showed by the authors regarding the ICP/MS, ranges from 0.19 to 0.50 %, which is very good for that type of method, but as far as isotopic measurements are concerned, the uncertainty is from 5 to 10 times better with the TIMS. The authors notified isotopic similarity with more or less 2 standard deviations (around 0,38 to 1 %). Given the slight isotopic differences existing in France between the

*different mines (in short, the standard measurement  $^{206}\text{Pb}/^{204}\text{Pb}$  ranges from 18,20 to 18,60), this uncertainty is too high to establish accurate relations between two or several samples. By way of conclusion, the lack of published isotopic reports is very prejudicial and does not allow us to have a clear opinion on the trustworthiness regarding the conclusions drawn by the authors. Personally, I am very sceptical, for the method of lead isotope geochemical exploration seems to be inappropriate to establish the wanted filiation, highly subtle as it may be. In the first place because the lead isotope signature is absolutely not peculiar to an individual, and, in which case, the analytical method is not accurate enough to strongly back up other more relevant methods which are put forward in the article, but in which I have no expertise [DELORME, 2013]."*

- Argument #10: hyperpigmented cutaneous lesion on the right side of the nose. This lesion was confirmed by numerous portraits, sculptures and copies of death masks (nevus) [CHARLIER & GABET, 2013].

Indeed, some portraits show a nevus (7 according to Charlier), but many others do not. Out of 38 portraits exhibited in *Gallica*, only one shows a nevus. Moreover, the death mask owned by the Saint Geneviève library, moulded on the king's corpse the day after his death, does not show a nevus, while other very specific details can be noticed [DELORME, 2013].

- Argument #11: old scar on the jawbone, traumatism due to Jean Châtel's murder attempt on the king with a bladed weapon on December 27<sup>th</sup> 1594 [CHARLIER & GABET, 2013].

As for the scar on the jawbone, no texts mentioning Jean Châtel's murder attempt on December 27<sup>th</sup> 1594 report any osseous penetration with a knife blade. Thus, Pierre de l'Estoile testified: "*The blow hit the right side of the upper lip and cut a tooth* [DE L'ESTOILE P., 1741]." Henry IV himself related this assault in the letters he sent to the local authorities to reassure them on his state of health. "*... A young boy, named Jean Châtel, (...) moved forward without being noticed and thought to strike us with the knife he had; as we had lowered to lift seigneurs de Ragny and de Montigny up who were waving at us, the blow only stroke us at the right side of the upper lip and cut a tooth* [BABELON J.-P., 1982]..." Let us recapitulate, the knife was supposed to hit the neck, but Henry IV moved, which meant that Châtel did not have the time to change tack. In other words, the latter stroke the mouth in the last minutes. He cleft the king's mouth. On January 5<sup>th</sup> 1595, according to Babelon, Henry IV was still seen with a mouth plaster. Nevertheless, the blow was relatively violent to explode a central incisor. Nowhere is it mentioned that the knife blade penetrated the bone, which would have led to a more serious and incapacitating wound. In that case, would have the king been able to write to the local authorities on the day of the assault, or even days later? Moreover, on the presented piece of bone, where is the cavity with the root of the fractured incisor which could still be present in the maxilla [RIAUD, 2011]?

Charlier also wondered on the topic: "*First of all, does the scar on the mouth really exist on that mummy? [...] What Henry IV did not say but which one of his chroniclers, Pierre de L'Estoile, recorded, is that his surgeon had tried to re sew his mouth with two stitches. But the first was so painful that he refused the second and thus, he kept an ugly scar until his death. [...]*"

Still according to Charlier: "*Joseph Émile Bourdais, the second-hand goods dealer, thought to see the scar on the upper right lip. However, with the binocular magnifying glasses, no wound could be noticed on that location, apart from a mere small roll of fat and a large skin section at the level of the lateral side of the neck. There is no comparison with a wound. Bourdais was mistaken: it was a mark of decapitation, which intervened after the individual's death* [CHARLIER, 2010]." Finding nothing on the right, Charlier focused on the left and noticed a lesion on the left hemimaxilla (as reported by the British Medical Journal) [DELORME, 2013]. And yet, Henry IV himself wrote in an official letter on December 27<sup>th</sup> 1594 (same day of the assault) to the cities of the realm to reassure them that he was only hurt on the upper right lip" [DE L'ESTOILE P., 1741].

- Argument #12: Pierced right ear lobe. Earing on the right side testified by at least a portrait exhibited by the Chantilly museum [CHARLIER & GABET, 2013]. In the TV programme, Babelon himself – who knows about Henry IV better than anyone else – was perplexed by the pierced ear. Indeed, he declared: "*I believe that no portrait, unless I am mistaken, shows him with earrings*". Indeed, almost all the paintings, engravings and statues representing the Green Gallant do not include any ear ornament [RIAUD, 2011]. Subsequently, the website *Gallica*, the digital library of the "Bibliothèque nationale de France" displayed sixteen engraved portraits of Henry IV dating from the 16<sup>th</sup> century and twenty-two from the 17<sup>th</sup> [DELORME, 2013]. None of them show the king wearing an earring. Even when he was a semi-captive between 1572 and 1576, the young king of Navarre did not seem to have succumbed to this fashion. Henry III wore one [RIAUD, 2011]. Charlier and Gabet found an engraving in the archives of the Condé museum [CHARLIER & GABET, 2013]. And yet, this work of fantasy by Jean Ganière (1615-1666) was engraved before the king's assassination. The engraving belongs to the same series of work as the ones of Charles I of England and his wife Henrietta Maria of France, and which date back to the years 1635-1640, and which were also marked with "*Ganière excudit* [Ganière made it] [DELORME, 2013]." Mrs Nicole Garnier-Pelle, the heritage curator of the Condé museum, said about it: "*Of all the collections which contain several portraits of Henry IV, that is to say, paintings as well as drawings and sculptures, and 59 engravings (...), I only know one engraving where he is wearing an earring, it is the one that I showed [during Belet and Gabet's documentary], the engraving P-352, published by Ganière, but it surely was not made after the model and is not a proof that the King was wearing an earring; the engraver might have taken the initiative to reproduce this trend* [DELORME, 2013]."

Thus, hundreds and hundreds of portraits represent Henry IV without wearing an earring. Some research made in the alcoves of a museum revealed a unique lithography of the king wearing an earring which was immediately claimed as being a piece of evidence. In fact, a more equitable proportion of paintings showing an earring or not would have been needed. However, that is not the case. Rather, could not it be the fantasy of an artist who wanted to differentiate himself from the others by adding this jewel to the king [RIAUD, 2011]?

- Argument #13: Corresponding C14 dating. Range between 1450 and 1640, for a death which occurred in 1610 [CHARLIER & GABET, 2013].

Radiocarbon dating involves a standard deviation of 200 years which is considerable from historical and scientific points of view because it does not insure temporal accuracy. Thus, Henry IV died in 1610. A hundred years before that was the year 1510. The king was Francis I. A hundred years later, that is to say in 1710, the king was Louis XIV. These are three resolutely different and incomparable periods. The scientist mandated by Philippe Charlier established the range to 1450-1640, that is to say the double-ended range from Charles VIII/ Louis XII to Louis XIII. Can this argument be taken seriously [RIAUD, 2011]?

- Argument #14: Satisfying anatomic superposition on death mask. Copy owned by the Saint Geneviève library;

Argument #15: Satisfying superposition of the portrait by Barthélémy Tremblay (Pau). Sculpture judged particularly similar by the contemporaries (same anatomic points of comparison) [CHARLIER & GABET, 2013].

As far as the death mask is concerned, it does not reproduce the main facial features as explained by Jacques Guillemeau, surgeon in charge of the report on Henry IV's autopsy, on May 15 1610, then of his embalming. He stated: "*Once the face is formed, [the sculptor] does & adds to it the rest of the head, which he naturally proportions [...]. (Les œuvres de chirurgie (1612)).*" In his article published in *La revue du praticien*, Charlier does not quote that superposition, since the identification had been proclaimed in 2010 [CHARLIER, 2011]. For what reason?

The researcher referred to Henry IV's marble statue which was sculpted by Barthélémy du Tremblay and ended after his death in 1629 by his son-in-law, Germain Gissey. As Henry IV died in 1610, the statue was finished more than 20 years later [DELORME, 2013].

What's more, the identikit established by Mr. Jean-Noël Vignal, a judicial police officer, seemed very inaccurate. During the TV programme, the latter stated that it was "*a doppleganger*" at the most [RIAUD, 2011]. A mere comparison between the identikit which was made according to the head which Bourdais owned and a painting of a young beardless Henry IV shows great dissimilarities. The eyes from the head, owned by Bourdais, are too close, the upper lip too fleshy, the jaw too large while "the Navarrais" had quite a thin chin – which made the circle beard of the aging king less apparent. Finally, the nose is way too short while that of the king nearly reached his upper mouth, as the 1610 mask confirms [DELORME, 2013]. In his article *La revue du Praticien*, Charlier admitted the limits of the facial superpositions and mentioned Professor Franco Rollo, professor of anthropology, an internationally known expert of that technique [CHARLIER, 2011].

According to Charlier, "*Limits of facial superpositions. The mouth of the mummified head being open, the comparison of the facial superpositions could not be totally made, as signaled by Franco Rollo. In practical terms, we did not take into account the 12 required anatomical points but only those of the upper hemiface: forehead curve, glabella, root of the bones peculiar to the nose, nose basis, median maxillary positioning, upper inter-incisor position. Out of those six criteria, the important information in our study was to be able to exclude (or not) the suggested identity. The bone of contention (out of 6 as well as out of 12) would have eliminated this identification* [CHARLIER, 2011]."

Contacted in 2011, Franco Rollo pointed out concerning this reconstitution: "*Comparison between the skull and the king's death mask. The method (Austin-*

*Smith and Maples's work, 1994) prescribed that we examine 12 anatomical points by looking at the skull (as well as the subject's head) from the side (norma lateralis) and 12 other points by looking at it from the front (norma frontalis). Charlier and his colleagues only examined the side. That usually would mean that we have 12 confrontation points [DELORME, 2013]". According to Pr Rollo, "Here, unfortunately, we do not have the entire moulding of the head but only that of the face. It means that we no longer have 12 available points, but only 3 to 4 between the forehead and the nose. Here the skin and the soft tissues are very thin, so the profile of the skull should precisely follow the profile of the mask. Every single one of us can see that it is not the case. The forehead and the nose of the skull do not follow the forehead and the nose of the mask. We need to conclude that the skull and the mask belong to different men [DELORME, 2013]." Pr Rollo added: "We cannot use a statue or a painting to establish the identity of an ancient skull, for the statue or the painting are always, to a certain extent, the result of the artist's inspiration. Therefore, the comparison (made with precision, of course!) between a skull and a statue or a painting always end up to a negative result. It is precisely the case for the statue of the castle of Pau. However, if we have the skull of an historical figure whose identity we are sure of, we use the skull to check whether a portrait (through a drawing, a painting, an engraving) is similar [DELORME, 2013]." After many attempts of superposing the mask over the skull, Pr Rollo (on January 16<sup>th</sup> and February 27<sup>th</sup> 2011) maintained with great certitude "I have made some experiences of superposition which confirmed that the mummified skull and the mask do not belong to the same individual [DELORME, 2013]."*

- Argument #16: satisfying craniofacial reconstitution [CHARLIER & GABET, 2013].

Henry IV died in 1610. His body was exhumed in 1793. The texts describe him with "a closed mouth." Charlier presented us a skull with an open mouth and explained that it was opened during the desecration "to extract his teeth". "As for his open mouth, it distorts the reconstitution made with a computer and invalidates everything, for the head would have been embalmed with an open mouth. Who can believe that it is possible to open the mouth of a corpse which dried after 183 years of sleep? Moreover, who has already seen a plaster death mask made of a corpse with an open mouth [RIAUD, 2011; DELORME, 2013]?"

The computer graphics designer, Philippe Froesch, who is an expert in 3D reconstitution and the director of the Visualforensic studio located near Barcelona, carried out the craniofacial reconstitution. Jean-Pol Beauthier explained the limits of this technique: "All those techniques [of craniofacial reconstructive identification] are difficult and reserved for specialised laboratories. Indeed the thickness of soft tissues in certain anthropological points do not sum up in no way the problems and the hurdles of these methods, for the most important is definitely the relation and the balance between the noble parts of the face. Moreover, the face shows subtle variations which make its personality. It is impossible that all the cutaneous points be correctly determined or estimated by osseous anthropological points. Finally, we have to underline that we cruelly lack scientific variations in all those fields: only the facial superposition is subject to sufficiently-sophisticated scientific work. The isolated published successes occurring after facial reconstruction do not presuppose the origin of success (resemblance, opportunity, chance...) and scientific research really must occur in this field [BEAUTHIER, 2008; DELORME, 2013] "

Even though the result is impressive and leaves you far from indifferent, can we consider this computer-assisted craniofacial reconstitution as scientific proof for all that?

- Argument #17: Presence of black ivory on the lower part of the neck (pigmentation respecting the face). Coal put on the deceased's skin to absorb the cadaveric smells, according to the method described by Pierre Pigray, Henry IV's embalmer [CHARLIER & GABET, 2013].

There are no documents in which Pigray explained the use of "*animal coal on the skin apart from the face to absorb the cadaveric smells.*" Especially not in his *Epitome præceptorum medicinæ chirurgiæ* [PIGRAY, 1612]. He never spoke about "black ivory", that is to say coal obtained with the calcification of animal bones. However, it seems that the "*filtered and sieved ashes*" which he reported are of vegetal origin. But, the use of wood ashes in the embalming method was not specific to Pigray. Such as other doctors' writings of the time, and notably that of Guillemeau, Pigray recommended to spray the body "*inside as much as outside*" with a balm made up of myrrh powder, aloe, aristolochia, iris of Florence, etc., before wrapping it in wax cloth. Before him, no author had recommended to use animal ashes. It was quite the opposite. Indeed, the use of herbs and spices as well as minerals such as lime, sand, plaster, alum or salt was always encouraged. Therefore, this black mark on the lower part of the neck seemed alien to any royal origin. Pigray, who was present during Henry IV's autopsy, did not carry it out. Being a surgeon and not a doctor, such as Jacques Guillemeau, he was the student of Ambroise Paré of whom he followed the precepts. The latter recommended: "*Extinguished lime, ordinary or oak ash*" [MALGAIGNE J.-F., 1841; DELORME, 2013]."

- Argument #18: Absence of sawing of the cranial vault [CHARLIER & GABET, 2013].

The king's autopsy occurred on May 15, 1610, in front of 14 doctors and 11 surgeons. Among them were Pigray and Guillemeau. The embalming was immediately carried out. Both are Ambroise Paré's students. Guillemeau recommended two embalming techniques that both required a decompressive craniectomy [GUILLEMEAU, 1612]. In the fourth volume of his *Epitome præceptorum medicinæ chirurgiæ* (1612), Pigray also advised a decompressive craniectomy. There are no documents in which Pigray was Henry IV's exclusive embalmer. Moreover, his book never mentioned some "art of the Italians". Pigray stated: "*Yet, the technique is to open the body, empty all the interiors, the lower as much as the the upper and medium parts and to preserve the internal parts in a different vessel.*" The upper part is obviously the skull [PIGRAY, 1612].

The embalming techniques including decompressive craniectomy according to Ambroise Paré's methods were followed during the last two centuries of the Ancien Regime. They were applied virtually systematically for Henry IV's descendants or kinship. Louis XVIII was the last king to have benefited from these techniques in 1824. As for "the art of the Italians", it may have never existed, decompressive craniectomy being greatly practiced in Italy [DELORME, 2013]. Only one book reported the art of the Italians. Reynar Solenander (1524 - ?), a German doctor, in his *Consiliorum medicinalium*, mentioned it but he also wrote about decompressive craniectomy which was then carried out.

Alexandre Lenoir reported: "*The prince's body was such in a perfect state of preservation, that his facial features were not altered. It was put in the pathway of*

*the lower chapels, wrapped in his shroud, which was also preserved. Each of us had the opportunity to see him until the morning of Monday 14<sup>th</sup>, during which he was carried into the choir, at the bottom of the stairs of the sanctuary, where he remained until two o'clock in the afternoon, and from there, he was carried into the so-called de Valois cemetery, then in a large grave in the bottom, on the right, on the North side. This corpse which was considered as a dry mummy, had a sawed skull and instead of the brain which had been removed, it contained some tow, which was covered with a liquor extracted from herbs and spices. It left behind such a strong smell that it was almost impossible to bear it [LENOIR, 1803 ; DELORME, 2013]."*

The playwright, Georges Duval, had also witnessed the exhumation. He published his *Souvenirs de la Terreur de 1788 à 1793* in 1841-1842. He was 16 years old during the 1793 profanations. In his testimony, he notably testified: "*... Besides, the body was in such a perfect state of preservation: his fluffy beard, anointed with perfume, was forming a compact whole, and his features were so recognisable that if his skin did not have the colour of a dry parchment, we could have imagined that Henry IV was merely asleep. The upper part of the skull having being removed, we found a sponge soaked with herbs and spices occupying the place of the brain, and which still exhaled quite a smooth scent [DUVAL, 1841-1842; DELORME, 2013]."* Keep in mind that the skull, which Bourdais owned, never had a decompressive craniectomy and still has its brain.

- Argument #19: Intrabuccal vegetal sediments and in the nasal cavities. Embalming with the help of scented products [CHARLIER & GABET, 2013]. During two centuries, Henry IV's mummy was locked in a double lead and wooden sarcophagus, tightened up in his shroud, stuffed with odoriferous substances. When his gravestone was opened (1793), Alexandre Lenoir stated: "*Some very strong exhalation of herbs and spices evaporated.*" During the TV show, two renowned perfume creators, Mrs Sylvaine Delacourte – from Guerlain – and Mr Jean-Michel Duriez – from Jean Patou/Rochas – were assigned with the mission of smelling the skull. There were no significant results. The skull only smelt of old leather, with no "*smell of herbs and spices or balms*". The IFF company – International Flavors & Fragrances Inc – which owns laboratories in Neuilly-sur-Seine (Hauts-de-Seine), then carried out a molecular analysis of organic compounds of the mummy. After using the particle detector, the chemist Dominique Favier, expert in perfumes and flavours, confirmed the lack of vegetal substances which attested to the embalming. In the TV show, Charlier assured: "*So, in principle, this head was not embalmed, or it was a so-called spontaneous and natural embalming or mummification. It makes the identification more complex though because we have no classical reference of it.*" Further on, Charlier added: "*When we take a close look through the two nasal cavities with a fiberscope, we notice that there are no pepper grains for instance, no metallic residues, no vegetal residues or anything like that [DELORME, 2013]."*

- Argument #20: Mark of bandages [CHARLIER & GABET, 2013]. Alexandre Lenoir drew Henry IV's portrait, once they had gotten rid of his bandages. Could they prove the identification of Henry IV's skull? As far as I know, many mummies had been wrapped with linen bandages [RIAUD, 2011].



- Argument #21: Presence of residues of an old type of moulding on the face, testifying of the making of a death mask [CHARLIER & GABET, 2013].

The making of a death mask is a classical practice in the context of royal obsequies. There are many old wax or plaster copies of Henry IV, the most ancient being that exhibited in Saint Genevieve library. We should not mistake these mouldings with the different wax effigies made by sculptors, in connection with the model representing the dead king put in his coffin during the time of the public exhibition until it was transferred to Saint Denis. During the 20<sup>th</sup> century, Joseph Emile Bourdais was said to have made a death mask of the skull he owned to try to have a result close to that of Henry IV. Moreover, this mummified skull was said to have been used as an anatomical model by sculptor Nallet-Poussin who was said to have bought it around 1893. In my opinion, we cannot give credence to this argument. [DELORME, 2013].

- Argument #22: Neck cut with a bladed weapon (decapitation of 1793) [CHARLIER & GABET, 2013].

The gathered testimonies show that everything which surrounded Henry IV's remains, since the opening of his coffin (October 12<sup>th</sup>) until the placement of the corpse in quicklime (October 14<sup>th</sup>) in a mass grave, occurred in front of a large audience. Under such circumstances, when was the head removed? And who removed it? There are no testimonies [LENOIR, 1803 ; DELORME, 2013].

- Argument #23: Shared DNA profiling with Louis XIV's blood (STR, Y chromosome, 6 loci). Agnatic kinship between Henry IV and Louis XVI on seven generations [CHARLIER & GABET, 2013].

First study in 2010: First, Charlier cut a muscle segment at the end of the mummy's neck as well as fibres from a withered finger stored at the Tavet-Delacour museum of Pontoise. He took appendages from the Vivant-Denon reliquary in Châteauroux and from others stored in the museum of Pau (of dubious origin). Three control components with no links to Henry IV were included: an Egyptian mummy's hair, some pleura of an anatomic preparation of the 13<sup>th</sup> century and a blood-stained piece of cotton which was used to wipe a guillotine knife dating back to the 19<sup>th</sup> century. The Institute of Forensic Medicine of the University of Strasbourg and the Centre for Geogenetics of the Museum of Natural History of the University of Copenhagen made the analysis. The result is irrevocable. No DNA can be used [DELORME, 2013].

Second study in 2012: Charlier got back a sample coming from "*the deepest location of a person's throat*" to make a comparison with Louis XVI's dry blood which could have been recovered from the scaffold in 1793. That time, professor Carles Lalueza-Fox's Catalan team carried out the analysis. On December 31<sup>st</sup> 2012, in *Forensic Science*, a match was found between the skull, Bourdais owned, and Louis XVI's blood [CHARLIER P. & AL., 2013].

Dr Olivier Pascal, an expert in DNA printing who was accredited by the Court of Cassation and who is the chair of the French Institute of DNA printing, and Pr Jean-Jacques Cassiman professor emeritus of the University of Louvain in Belgium led a parallel study [DELORME, 2013]. Here are their conclusions: "*A recent publication showed some similarity between the Y chromosome characterised from the mummified head and that of the blood coming from the flask. The immediate*

*conclusion was to authenticate by such an outcome both with regard to the head and the blood. The first difficulty comes from the lack of perfectly accurate reference. Neither the head nor the blood can be authenticated. The clues coming from historical research cannot alone constitute accurate pieces of evidence. Therefore, it is highly surprising that from two unknown materials, researchers can obtain two certainties merely because of coinciding DNA printing. In Mathematics, the resolution of a single equation with two unknown variables requires at least two equations containing two unknown variables, which is not the case here. The second difficulty deals with the scientific results themselves. First of all, owing to the medium used for the comparison, that is to say, the Y chromosome. The accuracy of the forensic identification is based on the characterisation of non-sexual chromosomes, the identification through the Y chromosome being only reserved in specific cases. All the individuals of a same paternal lineage but also individuals with no family ties share the characteristics of the Y chromosome. It is not specific to an individual but to a group of individuals. This means that if there is a match, it could reveal some connection due to paternal lineage or it could be due to chance. Moreover, the results published in the international magazine are surprising. The charts, which are presented, show that the Y chromosome could only have been partially characterised for the head and that there are two differences between the Y chromosome of the head and that of the blood. This scientifically led us to exclude a similarity between the two Y chromosomes. If we obtained such results in the context of a criminal case, they would not allow an individual's indictment. For all these reasons, it would be presumptuous to maintain that the head is that of Henry IV and that the blood is that of Louis XVI [DELORME, 2013]."*

Moreover, Delorme added: *"The DNA used for the comparison was said to be that of the variable areas of the Y chromosome. And yet, many people in the general population can have the same Y chromosome without being linked whatsoever. Besides, the study only determined seven alleles in total (variants of a gene), among which two differed with the blood attributed to Henry IV's descendant. In our daily practice for criminal cases, those two differences are enough to exclude any kinship via paternal lineage. Even though the identity would match between the DNA of the Y chromosome of the blood and the DNA of the Y chromosome of the skull, it would be impossible to maintain that the blood is that of Louis XVI and that the skull is that of Henry IV due to a lack of key reference items [DELORME, 2013]."*

The mitochondrial DNA of the head, owned by Bourdais, was thus put forward. If it is well and truly Henry IV, it must exclusively correspond to his matriline. After advanced genealogical studies, a matriline led to the current Queen Anne of Romania. Her DNA signature was established in the context of the study on Naundorff, the fake heir apparent (1998). After the comparison of the two DNA by Pr Cassiman, one conclusion was drawn: *"Those who bear this DNA can be related [DELORME, 2013]."*

Finally, we should not forget the following historical aspect: Henry IV had no less than 30 bastards from different affairs, to such an extent that he arranged a courtyard for his children among his own [RIAUD, 2011].

### *Research hypotheses*

According to Mrs Evelyne Peyre from the Musée de l'Homme, a group of at least ten anthropologists would be required to formally identify or not this skull by comparing

their results. If we know Henry IV's mother, Peyre, who has worked for a long time on it, questioned why no DNA samples were taken from her and compared to that of the alleged skull. Finally, the study of the bumps of a skull can be revealing, especially at the time during which fights were frequent. Perhaps could we get more accurate knowledge on potential traumatism which occurred on Henry IV's head during his warfare rides by studying texts relating to Henry IV's life? This topographic survey would allow to make a list of the potential filed traumatism and then, to make a comparison between those on Henry IV's head in order to provide, once for all, certainty [PEYRE, 2013].

### *Conclusion*

This identification was presented as "*formal*", based on pieces of evidence which were said to be indisputable, and this with great media coverage. Finally, in no case may we speak of evidence, no more than an array of presumptions or items of proof, all of them questionable. Consequently, we cannot speak of a 100% "*formal*" identification, or more recently, of an identification which is "*higher than 99,99%*". There remains uncertainty. Besides, it seems to me that the term "*identification*" is inadequate. Therefore, it is necessary to deal with this subject with the greatest caution, given that numerous authors consider this skull as that of "*a natural mummy*". However, if we cannot maintain with absolute certainty that it is well and truly Henry IV's skull, neither can we say it is his. Finally, it would be necessary to lead further investigations, all the more so it seems that other new research leads could determine real convincing results.

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