# Dental Report of Ruud Karsten, DDS

Differentiating between Lucia I (who received the apparition of the Virgin Mary at Fatima, in 1917), and Lucia II (who died in 2005), based on dental, periodontal, dental prosthetics', and gnathological characteristics

# **MY EXPERTISE**

My name is Ruud Karsten. I am a retired dentist/periodontologist, former Senior Lecturer in Periodontology at the Radboud University College of Dental Sciences, Nijmegen, The Netherlands. I was employed at the College of Dental Sciences from 1975 up to 2013, when I retired.

I have studied the available photographs of Sr. Lucia, who received apparitions from our Lady, the Virgin Mary in 1917 (in this analysis called Lucia I), as well as of the unknown person, the latter who is shown to the world as the Sr. Lucia since 1967, exactly 50 years after the Virgin Mary appeared in Fatima, Portugal, and who died in 2005 (in this analysis called Lucia II.)

The question raised is whether Lucia II is the same person as Lucia I.

As a dentist/periodontologist, I of course focused my analysis on the photographs, which show in more or less detail the upper front teeth, and adjacent gums of Lucia I, respectively Lucia II.

# **IMAGES OF LUCIA I**

Only two photographs of Lucia I show usable details of the dentition, being B3 and B13.

B3 shows an irregular tooth row, some teeth extruded, probably due to periodontal disease, which causes a lack of tooth support, enabling the teeth to grow out.

B13 shows Lucia I appearing with a regular row of nice teeth. In January, 1948, her dentist, dr. Alcino Magelhaes, proposed to Lucia I, that all teeth be removed, and a denture be made for replacement. He already removed two teeth then, which may have been the most extruded ones of the upper front. In March, 1948, two more teeth were extracted.

In May, 1948, Lucia I suffered of severe inflammatory disease in her mouth, which indicates that several teeth with periodontal disease, and/or root apex inflammation, still existed in her mouth. Around that time dr. Alcino Magelhaes expressed his astonishment that not all teeth had already been removed, as was planned in January, 1948, but later he understood why. He has then finished the dental extraction treatment, and the replacement with artificial teeth. (See: Tooth Background - 2). Although it is written that he 'implanted' artificial teeth, we must take it that he had a full acrylic denture made for Lucia I. The real implantation of artificial teeth in jaw bone, using titanium screw type "roots", on which a dental tooth structure of metal and porcelain is built, the so-called supra-structure, was not possible in 1948.

Photograph B13 shows a natural aligned row of front teeth, which supposedly are the teeth of the artificial upper denture, made by dr. Magelhaes, or, under his supervision, by a dental technician, and subsequently adapted in the mouth of Lucia I. The teeth seem to have proper interdental contacts, which means that the teeth were naturally positioned in contact to each other, without spacing in between them. The latter is relevant, if we compare with a denture worn by Lucia II. (See below.)

From the information which is known to me, I can't date photograph B13. But it should be after May, 1948.

# **IMAGES OF LUCIA II**

Coming to the photographs of Lucia II, I like to refer to number 3 (of 7) in the 'Shape of Smile' series. The row of front teeth looks similar in Lucia I and Lucia II. Are these Lucia's II natural teeth? The same teeth alignment of Lucia II is shown in photographs C7, C9, C16, C19, Do, DoA, and DoE, all made around the visit of Pope Paul VI in May, 1967.

Photographs C8, C9, C13, and C15, dating from the same period, show an atrophic, retruded upper alveolar front, indicating that Lucia's II upper natural teeth have been extracted some time ago. If so, her teeth, visible on all of these photographs, must be artificial ones, which means, she may wear a partial or full denture here.

So, the teeth of both Lucia I and Lucia II in photograph 3 (of 7) in the 'Shape of Smile' series most probably are artificial. Based on this finding, it is not possible to distinguish Lucia I from Lucia II.

Comparing the upper front teeth of both Lucia I and Lucia II in the photographs 4 (of 7), and 6 (of 7) of the 'Shape of Smile' series, leads me to the definite conclusion that Lucia II wears an upper denture, at least at her older age. I wouldn't be surprised that the denture Lucia II wears in these photographs is the same she has been wearing since around 1967, as shown in the photographs C7, C8, C9, C13, C15, C16, C19, Do, DoA, and DoE. The artificial teeth are unnatural short, and have no interdental contacts. The denture teeth are worn of through age. I do not believe that a new denture is made, and adapted in the mouth of Lucia II at older age, since by then, the esthetics of the denture would have been much more natural, showing longer teeth, and less acrylic 'gums'. (At the photographs, Lucia II shows a 'gummy smile', which means, she shows much of her 'gums', being the acrylic of the denture above the teeth.)

# **GNATHOLOGICAL CHARACTERISTICS**

Although it wasn't meant for me to say something about other aspects of the jaws of Lucia I and Lucia II, I take the freedom to do so. I am pointing at the aspect of facial profile of both women. From a comparison of the lower facial profile of Lucia I and Lucia II, at the photographs shown in the 'Facial profile' series, it is obvious, even for untrained persons, that the profiles are different. Lucia II shows a progeny of the lower jaw, making the profile of her lower face more concave, compared to Lucia I, who's profile is so to say convex, her chin being more dorsally positioned with respect to the tip of the nose, even só much, that it costs her some effort to close her lips without strain of the muscles of the chin/lower lip. The latter is visible at most of the available frontal photographs of Lucia I, even at younger age. I refer to photographs A4, B2, B4, B9, B10, B11A, and B11B. However, I can't exclude that at her middle age, the extruded upper teeth have caused at least part of the difficulty in lip closure.

The atrophy of the upper front part of the dentition/alveolar bone of Lucia II could explain her concave lower facial profile in part, but still not to the extent that this atrophy would be the only responsible factor in this respect.

# **FINAL CONCLUSIONS**

Ideally, dental, periodontal, gnatological, as well as other characteristics can only more certainly identify two or more different persons, when at least the age of those persons is about the same. Since no photographs are available of an aged Lucia I, and on the other hand, no photographs are available of a young(er) Lucia II, a more genuine comparison of Lucia I, and Lucia II must necessarily be limited to the period around 1960-1967. The youngest available photographs of Lucia I have presumably been made in between 1950 and 1960. The oldest available photographs of Lucia II originate from 1967, the year of the pilgrimage to Fatima of Pope Paul VI. When we compare those images, I can not drew a definite conclusion as to a difference between Lucia I and Lucia II, based purely on dental and periodontal characteristics.

When I compare the lower facial profile of Lucia I and Lucia II, I tend to say that Lucia I and Lucia II are different persons.

I declare that the above is my honest expert vision!

Sincerely, **Ruud Karsten, DDS** Nijmegen, 17<sup>th</sup> of February, 2019