

## The Contribution of the Similarity Biometrics provides scientific proof that the Grand Duchess Anastasia Nikolaevna was saved during the period of the Russian Revolution of 1917\*

Raoul Perrot & Alisa Vladi\*\*

RP: Honorary Professor of Anatomical Anthropology, Doctor of Science, Doctor of Human Biology. Honorary expert in forensic anthropology at the Court of Appeal of Lyon. Specialist in Similarity Biometrics.

Contact: [perrot.labanthropolyon@outlook.fr](mailto:perrot.labanthropolyon@outlook.fr)

AV: MSc in History, Teacher of History. State Institute " Lugansk Taras Shevchenko National University". Master's degree paper on "Israel in the System of International Relations (1948-2012)", Department of World History and International Relations.

Contact: [Alicevlady@outlook.com](mailto:Alicevlady@outlook.com)

### Summary

*The two authors, using Similarity Biometrics applied to the comparative expertise of photos representing on the one hand the Grand Duchess Anastasia Nikolaevna Romanova in her childhood and on the other hand (according to Alisa Vladimirovna's own archives: co-author of the article) a lady of 20, 60 and 70 years old who would correspond, according to her family tradition, to her great-grandmother Anastasia Nikolaevna Romanova, provide in this article scientific evidence that the Grand Duchess was saved during the period of the Russian Revolution of 1917.*

Keywords: Grand Duchess Anastasia Nikolaevna Romanova, 17 July 1918, Russian Revolution of 1917, Comparative expertise of face photographs, Similarity Biometrics

### Résumé **La contribution de la biométrie de similarité fournit la preuve scientifique que la grande-duchesse Anastasia Nikolaevna a été sauvée pendant la période de la révolution russe de 1917**

*Les deux auteurs, utilisant la biométrie de similarité appliquée à l'expertise comparative de photos représentant d'une part la Grande-Duchesse Anastasia Nikolaevna Romanova dans son enfance et d'autre part (d'après les propres archives d'Alisa Vladimirovna: co-auteur de l'article) une dame de 20, 60 et 70 ans qui correspondraient, selon sa tradition familiale, à son arrière-grand-mère Anastasia Nikolaevna Romanova, fournissent dans cet article des preuves scientifiques que la Grande-Duchesse a été sauvée pendant la période de la révolution russe de 1917.*

Mots-clés : Grande-Duchesse Anastasia Nikolaevna Romanova, 17 juillet 1918, Révolution russe de 1917, Expertise comparative de photographies de visage, Biométrie de similarité

### \*Advertisement

Reprinting or copying elements of this study, such as photographs from the personal archive of Grand Duchess Alisa and the informational component of the text, is possible only with the written permission of the authors of this study. A link to the source, namely to this article published, on the website of the Laboratory of Anatomical Anthropology and Paleopathology of Lyon is possible with the obligatory indication of the names of the authors of the article and the source of borrowing.

\*\* In the [attachment](#) to this article, Alisa Vlady offers interested readers a Photo Gallery on the imperial family of Russia of which she is a member as great granddaughter of Princess Anastasia.

## 1 – Introduction (Alisa Vladi, co-author of the article).

My great-grandmother Anastasia<sup>1</sup>, daughter of Emperor Nikolay II Alexandrovich and Empress Alexandra Feodorovna of All Russia (granddaughter of Queen Victoria), entrusted me with the mission of confirming that her life was saved during the Russian Revolution of 1917, during her lifetime. From a series of family photographs, well identified and dated, provided by me by Alisa Vladi using likeness biometrics, an original scientific method developed by my French friend Raoul Perrot, we wish to demonstrate that Her Imperial Highness Grand Duchess Anastasia Nikolaevna Romanov, from our Dynasty Holstein- Gottorp Romanov, was saved during the 1917 Revolution in Russia. The importance of this research for the Historical World Processes leaves no doubt in connection with the family ties of the Holstein-Gottorp Romanov dynasty[A] with the Royal Houses of Europe. And the restoration of truth in the history of Russia. The history of the Russian Empire at the turn of 1917 is undergoing changes and for more than a hundred years' time hides the family of the legitimate ruler of Russia, Tsar Emperor Nikolay II Alexandrovich.

The Dowager Empress, the mother of Nikolay II Alexandrovich, Maria Feodorovna, spoke with confidence about the fact that the family was saved. Being the grandmother of Anastasia, she knew about the fate of her granddaughter, namely that she was saved. I affirm this fact on the basis that the Grand Duchess, Anastasia Nikolaevna Romanova, is my great-grandmother. In the Historical and Humane-moral context, the words of Maria Feodorovna were not taken with due attention<sup>2</sup>. As a result, in the post-revolutionary period, several women appear who introduce themselves by the name of my great-grandmother, Grand Duchess Anastasia Nikolaevna Romanova<sup>3</sup>. And many publications containing the text of researches based on insufficiently verified information. For example, any research article can be taken that is indirectly or directly related to the investigation of post-revolutionary events in Russia in 1918[B] associated with the mysterious disappearance of the Romanov Imperial Family. The lack of balance of the informative base in previous studies does not give the right to focus on them in this research<sup>4</sup>. However, in some publications, the question that Anastasia escaped reprisal is confirmed by ongoing research<sup>5</sup>. I emphasize, this research on the identification of my great-grandmother Anastasia Nikolaevna Romanova to provide evidence of the rescue of Grand Duchess Anastasia Nikolaevna Romanova during the Russian Revolution of 1917 published in this scientific article is the first unique study with the method of Similarity Biometrics, personal photographs of my great-grandmother Anastasia Nikolaevna. Absolute evidence and the absence of similar studies make this study unique in proving the rescue of the daughter of Nikolay II Alexandrovich, Anastasia. All of the above highlights the need to publish the conducted examination of the Biometric Similarity, accompanied by a brief historical background on the life of Anastasia Nikolaevna Romanova<sup>6</sup>, her photographs at a young and advanced age (Figure 1) and her photo in 50 years old<sup>1</sup> as well as the results of a scientific study of Biometric Similarity, the Purpose of which confirms the title of this scientific article.

And of course, many thanks to everyone who supported us on the way to the announcement of Anastasia who survived and saved her life, for the sake of the future of the Dynasty!<sup>7</sup>

## 2 – Materials

From the family archives of Alisa Vladimirovna, we have retained for this comparative expertise 5 shots of Anastasia: 2 during her youth, 3 as an adult (Figure 1).



Figure 1 – 5 faces of Anastasia: 7 years old–9 years old - 20 years old–60 years old –70 years old

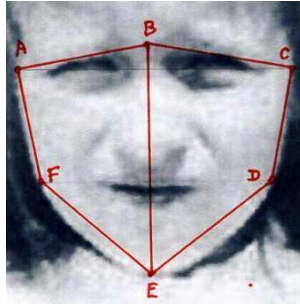
## 3 – Methodology.

The Biometrics of Similarity is an original methodology developed at the end of the 20th century [1] within the Laboratory of Anatomical Anthropology and Paleopathology of Lyon and which consists, as part of a **search for identification** of the author of an armed robbery (AVM) to compare two by two a photograph of the face of **B (unknown: the author of the VAM)** with a photograph of the face of **A (font file showing the face known to the accused)**: the purpose being to determine whether face **B** is **A**.

Later the method will leave the judicial field to venture successfully into that of the general identification of persons [2-3-4-5]. This is particularly the case today in this comparative study of photographs proposed by Mrs. Alisa Vladi to demonstrate that Princess Anastasia was saved during the period of the Russian Revolution of 1917. **A** will be young Anastasia this time, **B** will be Anastasia adult.

On each image is established a local descriptor corresponding to an invariant signature using anatomical points which connect them provide parameters and angular values. It is important to note that the comparison of the raw values of the same parameter on the two snapshots is never considered but that of *geometric invariants* [index ratios comparing the parameters two by two (general formula of an index: parameter 1 x 100 / parameter 2) + angular values] **which offers** the considerable advantage of being able to work on snapshots **that are not at the same scale!**

Note the importance of the general shape of the face or "*facial polygon*" considering 6 facial points: A = right zygoma / B = glabella / C = left zygoma / D = left mandibular angle / E = chin tip / F = right mandibular angle) and 6 parameters: AB / BC / CD / DE / FE / FA (Figure 2, p.4).



**Figure 2 – The 6 points of the facial polygon**

To these 6 parameters is added the facial height BE. All these 6 parameters are confronted in an *index of the facial polygon* whose formula is  $BE / \sigma$  of the 6 sides of the facial polygon.

On a practical level, the methodology is as follows:

1. For each index (or angular) value is considered the difference  $B / A$ : the result will be positive if the value B is larger than that A, negative otherwise,
2. The sum of the N differences B/A is the *algebraic sigma*,
3. The algebraic sigma / N ratio (number of index and angular values retained) provides the *similarity score* which varies from 0 to 10,
4. Each score is assigned a *% of assimilation (= resemblance) of the two faces* (Table 1).

Results:

1. For a score of 0, the assimilation % of both faces is 100%. The two faces therefore have 100% similarity which leads to the conclusion that **B is A: Adult Anastasia and young Anastasia are the same person!**
2. For a score of 1, the assimilation % of the two faces is 90%. The two faces therefore have 90% similarity which leads to the conclusion that **there is a high probability that B is A: namely that adult Anastasia and young Anastasia can be the same person!**
3. On the other hand, for a score of 10, the % of assimilation of the two faces is 0%! The two faces have no metric similarity which leads to **the conclusion that B and A are two different people: Anastasia adult is by no means Anastasia young become an adult!**

**Table 1 - Similarity score and % of assimilation considered in the comparison.**

Score	%	Score	%	Score	%	Score	%	Score	%	Score	%
0	100	1.7	83	3.4	66	5.1	49	6.8	32	8.5	15
0.1	99	1.8	82	3.5	65	5.2	48	6.9	31	8.6	14
0.2	98	1.9	81	3.6	64	5.3	47	7	30	8.7	13
0.3	97	2	80	3.7	63	5.4	46	7.1	29	8.8	12

0.4	96	2.1	79	3.8	62	5.5	45	7.2	28	8.9	11
0.5	95	2.2	78	3.9	61	5.6	44	7.3	27	9	10
0.6	94	2.3	77	4	60	5.7	43	7.4	26	9.1	9
0.7	93	2.4	76	4.1	59	5.8	42	7.5	25	9.2	8
0.8	92	2.5	75	4.2	58	5.9	41	7.6	24	9.3	7
0.9	91	2.6	74	4.3	57	6	40	7.7	23	9.4	6
1	90	2.7	73	4.4	56	6.1	39	7.8	22	9.5	5
1.1	89	2.8	72	4.5	55	6.2	38	7.9	21	9.6	4
1.2	88	2.9	71	4.6	54	6.3	37	8	20	9.7	3
1.3	87	3	70	4.7	53	6.4	36	8.1	19	9.8	2
1.4	86	3.1	69	4.8	52	6.5	35	8.2	18	9.9	1
1.5	85	3.2	68	4.9	51	6.6	34	8.3	17	10	0
1.6	84	3.3	67	5	50	6.7	33	8.4	16		

## 4 – Results

### 4.1- General

Three comparisons were made:

- Anastasia 9 years old /Anastasia 20 years old
- Anastasia 9 years old /Anastasia 60 years old
- Anastasia 7 years old /Anastasia 70 years old

### 4.2- Comparisons Anastasia 9 years old /Anastasia 20 years old /Anastasia 60 years old

17 facial points were selected on Anastasia's face 9 years old (Table 2): These 17 faciometric points made it possible to consider 29 parameters (Table 3, page 6) and 10 angular values (Table 4, page 8) and to calculate 21 indices for each face, i.e., 31 values that will be compared (Table 4, page 8 and Table 6, page 11).

**Table 2 – Facial points (see Fig. 4/6)**

1	A	Right Zygoma
2	B	Glabella
3	C	Left Zygoma
4	D	Right mandibular angle
5	E	Chin tip
6	F	Left mandibular angle

7	G	Nasion
8	H	BE/LM intersection
9	I	BE/AC intersection
10	J	Nasal
11	K	BE/FD intersection
12	L	Right eyeball
13	M	Left eyeball
14	N	Lateral right nostril
15	O	Left lateral nostril
16	P	Lateral right nostril
17	Q	Left lateral nostril

**Table 3 – Parameter values (cm) [for angular values: Table 4, page 8]**

Parameters		Anastasia 9	Anastasia 20	Anastasia 60
1	AB	<b>32.94</b>	<b>42.85</b>	<b>42.90</b>
2	BC	<b>34.57</b>	<b>45.72</b>	<b>45.45</b>
3	CD	<b>30.99</b>	<b>28.63</b>	<b>24.11</b>
4	DE	<b>32.43</b>	<b>45.98</b>	<b>37.93</b>
5	EF	<b>32.41</b>	<b>44.55</b>	<b>40.95</b>
6	FA	<b>30.42</b>	<b>27.60</b>	<b>25.87</b>
7	Sigma AB-FA/6	<b>32.29</b>	<b>39.22</b>	<b>36.15</b>
8	BE	<b>55.13</b>	<b>46.54</b>	<b>66.25</b>
9	BG	<b>3.41</b>	<b>0.59</b>	<b>0.64</b>
10	BH	<b>6.45</b>	<b>4.53</b>	<b>5.23</b>
11	BI	<b>8.65</b>	<b>15.35</b>	<b>16.77</b>
12	BJ	<b>25.86</b>	<b>27.64</b>	<b>26.70</b>
13	BK	<b>36.09</b>	<b>43.39</b>	<b>40.48</b>
14	LH	<b>14.33</b>	<b>16.14</b>	<b>17.58</b>
15	LM	<b>29.91</b>	<b>33.98</b>	<b>29.22</b>
16	AI	<b>32.58</b>	<b>38</b>	<b>32.83</b>
17	AC	<b>65.38</b>	<b>77.64</b>	<b>71.33</b>
18	AP	<b>31.16</b>	<b>31.57</b>	<b>23</b>
19	PQ	<b>14.10</b>	<b>19.67</b>	<b>15.50</b>

20	AN	36.19	37.70	30.62
21	FK	26.87	35.39	34.33
22	NO	25.31	27.68	21.22
23	FD	53.01	73.70	62.18
24	CQ	32.18	32.62	25.65
25	CO	35.29	36.99	29.34
26	NE	22.86	29.64	20.41
27	OE	22.03	30.06	19.47
28	LP	23.28	23.25	15.90
29	MQ	23.57	22.85	16.41

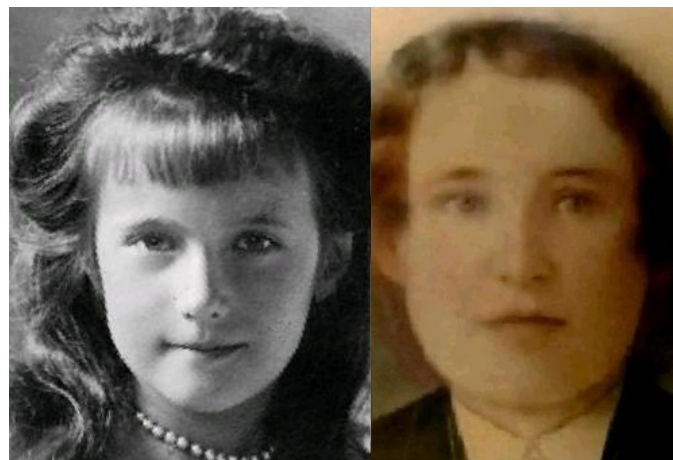


Figure 3 – Anastasia’s faces at 9 and 20 years old

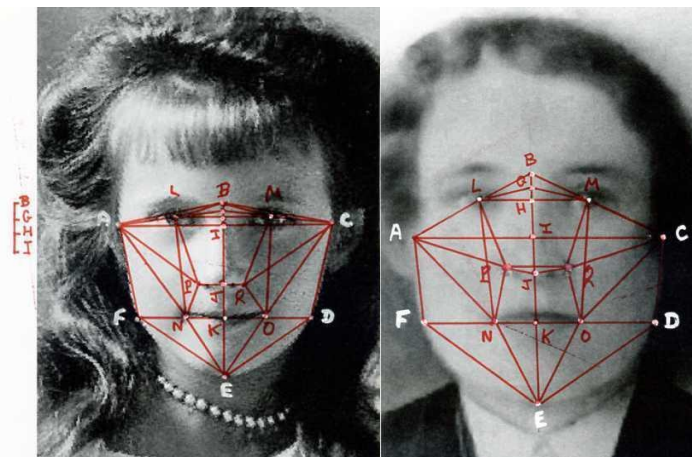


Figure 4 – Anastasia's faces at 9 and 20 years old compared according to similarity biometrics.

Table 4 - Metric similarity between Anastasia 9 and Anastasia 20

CLUES		Anastasia 9	Anastasia 20	Difference
1	BE/ Sigma AB-FA/6	1.71	1.19	+0.52

2	AF/BE	55.18	59.30	+4.12
3	CD/BE	56.21	61.52	+5.31
4	LM/AC	45.75	43.77	-1.98
5	LM/FD	50.42	46.11	-10.31
6	LM/PQ	212.13	172.75	-39.38
7	LM/NO	118.17	122.76	+4.59
8	LH/LM	47.91	47.50	-0.41
9	AI/AC	49.83	48.94	-0.89
10	FK/FD	50.69	48.02	-2.67
11	BG/BE	6.19	1.27	-4.92
12	BH/BE	11.70	9.73	-1.97
13	BJ/BE	46.91	59.39	+12.48
14	JE/BE	51.79	88.96	+37.17
15	JK/BE	35.27	38.38	+3.11
16	AP/BC	90.14	69.05	-21.09
17	AN/BC	104.69	82.46	-22.23
18	CQ/AB	97.69	76.13	-31.56
19	CD/AB	94.08	66.81	-27.27
20	LP/CD	75.12	81.21	+6.09
21	MQ/AF	77.48	82.79	+5.31
Angular values				
22	ABC	155	124	-31
23	BCD	88	102	+14
24	CDE	137	130	-7
25	DEF	110	108	-2
26	EFA	137	133	-4
27	FAB	92	116	+24
28	BAP	50	48	-2
29	BAN	68	76	+8
30	BCQ	48	75	+27
31	BCO	68	74	+6
<b>Algebraic sigma (sigma Anastasia 20 years – sigma Anastasia 9-11 years)</b>				<b>52.98</b>
<b>Similarity score [algebraic sigma / N (N =31)]</b>				<b>1.71</b>
<b>Metric similarity between the two faces</b>				<b>83%</b>



Conclusion: The two faces therefore have **83 %** similarity which leads to the conclusion that **there is a high probability that Anastasia (20 years old) and Anastasia (9 years old) are the same person!!!**

4.3- Comparison Anastasia 9-14 years old / Anastasia 60 years old



Figure 5 – Anastasia’s faces at 9 and 60 years old

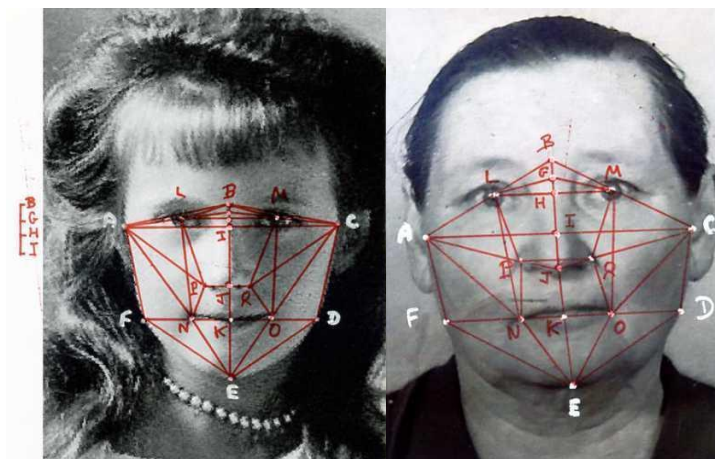


Figure 6 – Anastasia's faces at 9 and 60 years old compared according to similarity biometrics.

Table 6 - Metric similarity between Anastasia 9 and Anastasia 60

CLUES		Anastasia 9	Anastasia 60	Difference
1	BE/ Sigma AB-FA/6	1.71	1.83	-0.12
2	AF/BE	55.18	39.05	-16.13
3	CD/BE	56.21	36.39	-19.82
4	LM/AC	45.75	40.96	-4.79
5	LM/FD	56.42	46.99	-9.43
6	LM/PQ	212.13	188.52	-23.61
7	LM/NO	118.17	137.70	+19.53

8	LH/LM	47.91	60.16	+12.25
9	AI/AC	49.83	45.03	-3.80
10	FK/FD	50.69	55.21	+4.52
11	BG/BE	6.19	0.97	-5.22
12	BH/BE	11.70	7.89	-3.81
13	BJ/BE	46.91	40.30	-6.61
14	JE/BE	51.79	53.06	+1.27
15	JK/JE	35.27	39.57	+4.30
16	AP/BC	90.14	50.94	-39.20
17	AN/BC	104.69	67.82	-36.87
18	CQ/AB	97.69	59.79	-37.90
19	CD/AB	94.08	56.20	-37.88
20	LP/CD	75.12	65.95	-9.17
21	MQ/AF	77.48	63.43	-14.05
Angular values				
22	ABC	155	124	-31
23	BCD	88	111	+23
24	CDE	137	135	-2
25	DEF	110	117	+7
26	EFA	137	130	-7
27	FAB	92	108	+16
28	BAP	50	49	-1
29	BAN	68	73	+5
30	BCQ	48	43	-5
31	BCO	68	73	+5
Algebraic sigma (sigma Anastasia 60 years – sigma Anastasia 9 years)				216.54
Similarity score [algebraic sigma / N (N =31)]				6.99
Metric similarity between the two faces				31%

Conclusion: The two faces therefore have **31 %** similarity which leads to the conclusion that **there is a few probabilities that Anastasia (60 years old) and Anastasia (9 years old) are the same person!!!**

4.3- Comparison Anastasia 7 years old / Anastasia 70 years old (figure 7, page 15)

17 facial points were selected (Table 7): These 17 faciometric points made it possible to consider 30 parameters (Table 8, page 13) and 9 angular values and to calculate 18 indices for each face, i.e., 27 values that will be compared (Table 9, page 15).

**Table 7 – Facial points (see Fig. 9)**

1	A	Right Zygoma
2	B	Glabella
3	C	Left Zygoma
4	D	Right mandibular angle
5	E	Chin tip
6	F	Left mandibular angle
7	G	Nasion
8	H	BE/AC intersection
9	I	BE/NO intersection
10	J	Nasal
11	K	BE/FD intersection
12	L	Right eye lateral angle
13	M	Left eye side angle
14	N	Lateral right nostril
15	O	Left lateral nostril
16	P	Right labial commissure
17	Q	Left labial commissure

**Table 8 – Parameter values (cm) [for angular values: Table 9, page 15]**

Parameters		Anastasia 7	Anastasia 70
1	AB	<b>52.71</b>	<b>54.01</b>
2	BC	<b>58.45</b>	<b>56.52</b>
3	CD	<b>47.84</b>	<b>50.18</b>
4	DE	<b>58.41</b>	<b>53.31</b>
5	EF	<b>55.91</b>	<b>52.38</b>
6	FA	<b>46.39</b>	<b>49.72</b>
7	Sigma AB-FA/6	<b>53.29</b>	<b>52.69</b>
8	BE	<b>92.61</b>	<b>96.05</b>
9	BG	<b>8.36</b>	<b>7.90</b>
10	BI	<b>42.83</b>	<b>45.02</b>
11	BJ	<b>50.48</b>	<b>50.55</b>

12	BK	58.55	66.18
13	AC	108.22	105.83
14	LM	83.72	82.66
15	LH	40.93	41.35
16	NO	31.92	29.43
17	NI	16.26	14.89
18	FD	90.25	85.39
19	PQ	35.03	42.41
20	PK	18.83	22.02
21	LN	39.72	38.74
22	LP	51.90	52.47
23	AP	57.25	57.73
24	MO	39.75	38.62
25	MQ	52.00	52.63
26	CQ	60.55	58.61
27	NJ	19.01	16.72
28	JO	18.82	15.84
29	NP	18.43	21.51
30	OQ	17.10	21.52

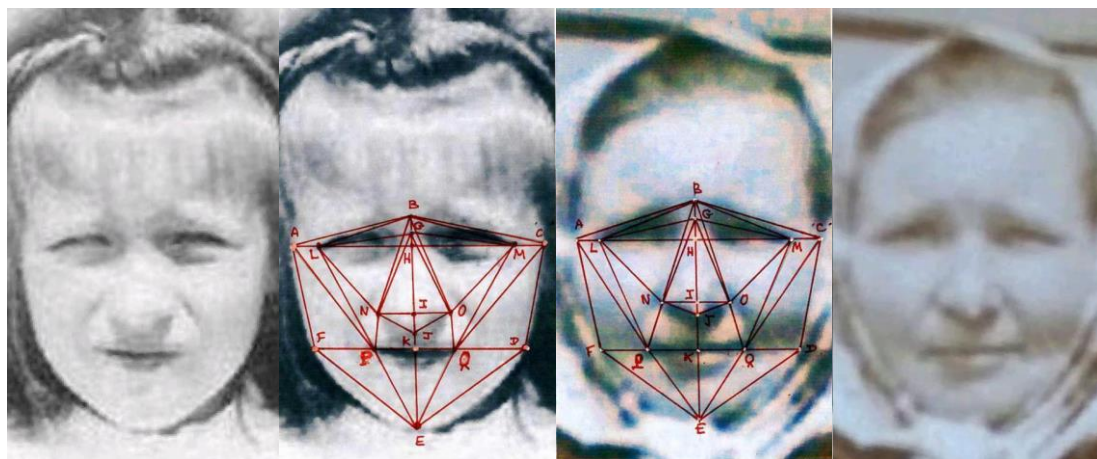


Figure 7 – Anastasia's faces at 7 and 70 years old compared according to similarity biometrics.

Table 9 - Metric similarity between the two faces

CLUES		Anastasia 7	Anastasia 70	Difference
1	BE/ Sigma AB-FA/6	1.74	1.82	0.08
2	FD/AC	88.39	80.69	2.70

3	BG//BE	<b>9.03</b>	<b>8.22</b>	<b>-0.81</b>
4	BI/BE	<b>46.25</b>	<b>46.87</b>	<b>0.62</b>
5	BJ/BE	<b>54.51</b>	<b>52.63</b>	<b>-1.88</b>
6	BK/BE	<b>63.22</b>	<b>68.90</b>	<b>5.68</b>
7	LH/LM	<b>48.89</b>	<b>50.02</b>	<b>1.13</b>
8	NI/NO	<b>50.94</b>	<b>50.59</b>	<b>-0.35</b>
9	PK/PQ	<b>53.75</b>	<b>51.92</b>	<b>-1.83</b>
10	LN/MO	<b>99.92</b>	<b>100.31</b>	<b>0.39</b>
11	LP/MQ	<b>99.81</b>	<b>99.70</b>	<b>-0.11</b>
12	AP/CQ	<b>94.55</b>	<b>98.50</b>	<b>3.95</b>
13	NP/OQ	<b>89.06</b>	<b>99.95</b>	<b>10.89</b>
14	NJ/FE	<b>34</b>	<b>31.92</b>	<b>-2.08</b>
15	JO/ED	<b>32.22</b>	<b>29.71</b>	<b>-2.51</b>
16	AB/ED	<b>90.24</b>	<b>101.31</b>	<b>11.07</b>
17	BC/EF	<b>104.54</b>	<b>107.90</b>	<b>3.36</b>
18	CD/AF	<b>103.13</b>	<b>100.93</b>	<b>-2.20</b>
Angular values				
19	ABC	<b>154</b>	<b>145</b>	<b>-9</b>
20	BCD	<b>103</b>	<b>96</b>	<b>-7</b>
21	DEF	<b>105</b>	<b>110</b>	<b>5</b>
22	EFA	<b>141</b>	<b>140</b>	<b>-1</b>
23	LBM	<b>148</b>	<b>133</b>	<b>-15</b>
24	LGM	<b>167</b>	<b>156</b>	<b>-11</b>
25	NBO	<b>42</b>	<b>35</b>	<b>-7</b>
26	NGO	<b>47</b>	<b>42</b>	<b>-5</b>
27	PEQ	<b>56</b>	<b>69</b>	<b>13</b>
<b>Algebraic sigma (sigma Anastasia 70 years – sigma Anastasia 7 years)</b>				<b>10.03</b>
<b>Similarity score [algebraic sigma / N (N = 27)]</b>				<b>0.37</b>
<b>Metric similarity between the two faces</b>				<b>96 %</b>

Conclusion: The two faces therefore have **96%** similarity which leads to the conclusion that **there is a very high probability that Anastasia (70 years old) and Anastasia (7 years old) are the same person!!!**

## 5 – Discussion

5.1 – As a preamble, let us recall the result of the three comparisons:

1. Anastasia 9 / Anastasia 20 = 83% metric similarity
2. Anastasia 9 / Anastasia 60 = 31% metric similarity
3. Anastasia 7 / Anastasia 70 = 96% metric similarity

One striking result is the weakness of the result of the comparison of Anastasia 60 years with the little girl of 9 years. This prompted the two authors to add a third comparison concerning Anastasia at 20 and 60 years old: the hypothesis considered being that aging (40 years separating the two faces) could explain the result obtained.

5.2 – Comparison Anastasia 20 / Anastasia 60

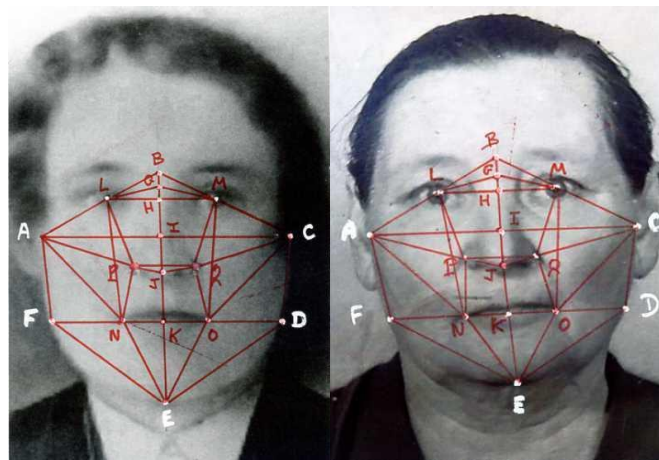


Figure 8 – Anastasia's faces at 20 and 60 years old compared according to similarity biometrics.

CLUES		Anastasia 20	Anastasia 60	Difference
1	BE/ Sigma AB-FA/6	<b>1.19</b>	<b>1.83</b>	<b>-0.64</b>
2	AF/BE	<b>53.30</b>	<b>39.05</b>	<b>-14.25</b>
3	CD/BE	<b>61.52</b>	<b>36.39</b>	<b>-25.13</b>
4	LM/AC	<b>43.77</b>	<b>40.96</b>	<b>-2.81</b>
5	LM/FD	<b>46.11</b>	<b>46.99</b>	<b>+0.88</b>
6	LM/PQ	<b>172.75</b>	<b>188.52</b>	<b>+15.77</b>
7	LM/NO	<b>122.76</b>	<b>137.70</b>	<b>+14.94</b>
8	LH/LM	<b>47.50</b>	<b>60.16</b>	<b>+12.66</b>
9	AI/AC	<b>48.94</b>	<b>45.03</b>	<b>-3.91</b>
10	FK/FD	<b>48.02</b>	<b>55.21</b>	<b>+7.19</b>
11	BG/BE	<b>1.27</b>	<b>0.97</b>	<b>-0.3</b>
12	BH/BE	<b>9.73</b>	<b>7.89</b>	<b>-1.84</b>
13	BJ/BE	<b>59.39</b>	<b>40.30</b>	<b>-19.09</b>

14	JE/BE	<b>88.96</b>	<b>53.06</b>	<b>-35.9</b>
15	JK/JE	<b>38.38</b>	<b>39.57</b>	<b>+1.19</b>
16	AP/BC	<b>69.05</b>	<b>50.94</b>	<b>-18.11</b>
17	AN/BC	<b>82.46</b>	<b>67.82</b>	<b>-1.23</b>
18	CQ/AB	<b>76.13</b>	<b>59.79</b>	<b>-16.34</b>
19	CD/AB	<b>66.81</b>	<b>56.20</b>	<b>-10.67</b>
20	LP/CD	<b>81.21</b>	<b>65.95</b>	<b>-15.26</b>
21	MQ/AF	<b>82.79</b>	<b>63.43</b>	<b>-19.36</b>
Angular values				
22	ABC	<b>124</b>	<b>124</b>	<b>0</b>
23	BCD	<b>102</b>	<b>111</b>	<b>+9</b>
24	CDE	<b>130</b>	<b>135</b>	<b>+5</b>
25	DEF	<b>108</b>	<b>117</b>	<b>+9</b>
26	EFA	<b>133</b>	<b>130</b>	<b>-3</b>
27	FAB	<b>116</b>	<b>108</b>	<b>-8</b>
28	BAP	<b>48</b>	<b>49</b>	<b>+1</b>
29	BAN	<b>76</b>	<b>73</b>	<b>-3</b>
30	BCQ	<b>45</b>	<b>43</b>	<b>-2</b>
31	BCO	<b>74</b>	<b>73</b>	<b>-1</b>
<b>Algebraic sigma (sigma Anastasia 60 years – sigma Anastasia 20 years)</b>				<b>99.48</b>
<b>Similarity score [algebraic sigma / N (N =31)]</b>				<b>3.21</b>
<b>Metric similarity between the two faces</b>				<b>68 %</b>

Conclusion: In absolute terms, this result of 68% would argue in favor of a high probability that both faces belong to the same person despite the age difference of 40 years! But we know, moreover, that the two photographs are indeed those of Anastasia at two periods of her life.

Indeed, the co-author of the article (Alisa Vladi) remembers well her great-great-grandmother Anastasia aged about sixty years, with whom she had been photographed when she was 4 years old (figure 9)!



**Figure 9 – Alisa, 4 years old with Anastasia aged 80 years old and 60 years old.**

In summary, Anastasia at 60-year-old shows 68% metric similarity to her 20-year-old face (40-year age difference) and 31% metric similarity to her 9-year-old face (50-year age difference): these values clearly show the link between facial morphology and aging! We can therefore, in conclusion, validly conclude that Anastasia 9 years old and Anastasia 60 years old are the same person!

### *5.3 – Comparison Anastasia 7 / Anastasia 70*

This important result of **96% metric similarity** is surprising and justifies a particular study. The visual comparison of the two faces immediately shows that the two subjects were photographed in direct sunlight causing a well-marked blink of the eyelids and the formation of an eye slit where the eyeball are invisible, which was not the case for the other faces selected for the comparative study! These changes in facial morphology can largely justify the result obtained, especially since over all the two faces are clearly blurred if we compare them to the others! Any way this does not call into question the rapprochement of the two faces of Anastasia at 7 years old and 70 years old!!!

### *5.4 – Comparison five polygon facial*

We have already indicated the interest presented by the **facial polygon** (§ 3, Figure 2, page 4) summarizing in a metric value the general appearance of the face.

The following table summarizes the values associated with the 5 ages of Anastasia:

7 years old	9 years old	20 years old	60 years old	70 years old
<b>1.74</b>	<b>1.71</b>	<b>1.19</b>	<b>1.83</b>	<b>1.82</b>

The values evolve from 1.71 to 1.83 for an average of 1.66 which brought back to the 31 index values retained in the comparisons gives a theoretical score of 0.05 or almost 99-100% morphometric resemblance at the level of the overall appearance of the face!!!

## 6 - Conclusion



This long comparative study, whose aim was to demonstrate that Grand Duchess Anastasia Nikolaevna Romanova was able to escape the massacre of her family during the Russian Revolution of 1917, benefited from the exceptional photographic documentation, well identified, and dated, from the family fund of Alisa Vladi (Grand Duchess Alisa Vladimirovna) co-author of the article and great-granddaughter of Anastasia!!!

It must be emphasized (compared to all the works already published on the "Anastasia affair") that this is the first time that so many documents have been gathered whose authenticity, and therefore reliability, is indisputable!!!

**The biometric of similarity was therefore applied to 5 chronological stages of Anastasia's life: 7 years, 9 years, 20 years, 60 years, 70 years, it demonstrates in an indisputable scientific way that Grand Duchess Anastasia Nikolaevna Romanova was indeed saved during the Russian Revolution of 1917!!!**

7- Notes (Alisa Vladi, co-author of the article).

1 - I remember my great-grandmother Grand Duchess Anastasia very well. She took the most responsible part in my upbringing until my decade. To expand on the topic, I will add that she considered it important for upbringing to have a musical education and she gave me a gift of a piano and accompanied me to dance lessons. She taught me all she knew herself. Also, in this photo (Figure 9, page 19) you can see that Anastasia was not tall in stature. Here I am (4 years old) standing on a small chair next to my great-grandmother Anastasia Nikolaevna Romanova, but she is standing on her feet. Her height was 157 cm (Figure 10, page 21). Our beloved, with cheerful gray-blue eyes, long blond hair that did not have silver hair.

In the photo (Figure 1, page 3) Anastasia is 20 years old. At that time, she wore short hair. Her hair only grew back after she and her sisters shaved off their hair after getting measles[C]. She had a noticeable mole on her back between her shoulder blades. She also had several moles on her friendly face (some of these age spots are known to be genetically transmitted). She was always attentive to every detail, was extremely frank, as far as possible, so as not to harm her family of loved ones in the Soviet period. When we became adults, we helped and protected Her. Every word of my great-grandmother Anastasia became dear to us.



Great-grandmother Anastasia spoke about her Royal parents with great affection, tenderness, and great love to father Nikolay II Alexandrovich and Mother Alexandra Feodorovna. Speaking about herself, my great-grandmother Anastasia emphasized Her Porphyrogenitus birth (purple-bor). Her childhood memories were vivid and memorable. I and many descendants of those with whom my great- Grandmother Anastasia knew remember, she said that her father played the flute. He also wanted to teach her to play the flute. She loved listening to his music, and she loved listening to a brass band, but she didn't want to learn to play the flute, preferring to play the piano.

Relationships in our family have always been absolutely trusting. She called all her young descendants: "*My little ones.*" Attentive, serious, resolute, and business-like nature helped her overcome the destruction of the family nest during the Russian Revolution of 1917. She was able to create her own family, which she adored and was deeply loved by all of us Anastasia Nikolaevna Romanova, in her younger years, was a midwife engaged in private practice. Anastasia's mother, Tsaritsa Alexandra Fedorovna, granddaughter of Queen Victoria, my great-great-grandmother, considered it a duty of honor to help people. Also, among her occupations was sewing and knitting clothes for the family and people who came to her with this request.

**Figure 10 – Anastasia, 50 years old.**

Will, as a character trait of my great-grandmother Anastasia, extended to everything that she considered right to do. Including help to those in need Anastasia was transferred from the royal mother. With the outbreak of the First World War[D], often visiting hospitals for wounded soldiers, which were established by her mother Alexandra Feodorovna[E], she acquired the skills of caring for the wounded, which were useful to her during the Second World War[F]. After the rescue and until the end of the war in 1945, Anastasia lived in a house (Figure 11) that belonged to the family of her savior, Dmitry Ivanovich Kalashnikov.



**Figure 11 - The oak log house of the nobility, in which Anastasia lived after her rescue (the photo was taken in 2017, a hundred years after the Russian Revolution).**

The family of Dmitry Ivanovich Kalashnikov, who accepts Anastasia Nikolaevna as his own daughter under the name of Anastasia Dmitrievna Kalashnikova according to the passport and other documents with the date of birth changed December 18, 1912. D. I. Kalashnikov became the named father for Anastasia and, therefore, another grandfather for us. Anastasia never worked for the Soviet government. Together with the family of Dmitry Ivanovich Kalashnikov, a Cossack, an Officer in the Tsarist army who saved my great-grandmother Grand Duchess Anastasia, they continued to help people. Both, who once swore allegiance to our Dynasty, Empire and Russia, remained true to their oath forever!

2- Maria Feodorovna, Empress Dowager Mother of Nikolay II, knew about the fate of her beloved granddaughter Anastasia, the youngest daughter of her son, Tsar Nikolay II Alexandrovich, who did not renounce Russia. That she was saved. Maria Feodorovna spoke about this and wrote in her letters and telegrams, diplomatically not talking about the saved granddaughter Anastasia. Maria Feodorovna always made it clear that her hopes for the salvation of her loved ones were justified. Now, part of the letters and her diaries are in the Royal Danish Archives and private archives. These letters often become a source of attention for research articles and books devoted to research on the life of the Royal family of the Holstein-Gottorp Romanov dynasty [A][G.a][G.b].

3- Due to the turmoil caused by the revolution, beginning in 1917, rumors began to spread quickly about the possible salvation of the Royal Family. Some people have succumbed to the temptation to illegally be called by the name of my Porphyrogenitus birth great-grandmother Anastasia. Anastasia herself considered them actors playing in the theater of the History of her salvation. Impostors[H], played their part in saving my great-grandmother Anastasia. At a time when there was a need for silence in the affairs of our family, the Pretenders Came to the fore and thus, unwittingly, helped the cause of salvation.

This study will stop the flow of impostors that began over a hundred years ago.

4- In previous research about our Dynasty there are no testimonies of witnesses of ongoing events, the absence of documentary evidence such as Photo or Cinema chronology proving the massacre of the family of Emperor Nikolay II Alexandrovich! However, at the turn of the 19th and 20th century, newsreel photographs were already widely used in documentary chronology. The absence of an examination of what happened by a forensic expert and the absence of witness testimony during the first minutes of what was happening in Yekaterinburg in the Ipatiev House in July 1918. The absence of a protocol for questioning witnesses under oath at the beginning of the Soviet period.

Such conclusions about the fate of the family of Emperor Nikolay II do not have a clear logical chain, and therefore the study of the fate of the Royal Family of the Holstein-Gottorp Romanov Dynasty cannot be considered complete without human and moral rehabilitation!

We present research based on photographic materials, testifying to the life of Anastasia in 1921, 1961, 1970-72, which corresponds to 20, 60, 70 years (Figure 1). And supplemented by the memories of the descendants of Anastasia Nikolaevna Romanova. And yet, for the sake of revealing the truth about the salvation of Anastasia, which this scientific article serves, it must be added that some researchers approached the disclosure of real events based on the results of research, scientifically proving that the remains of Anastasia were not found.

5- In the article by the SEARCH Foundation, Inc. Scientific Expedition to Account for the Romanov Children, publishes a review of the results of expeditions to Russia to the territory of the alleged burial place of the "remains of members of the Royal Family". And research conducted in research centers in America and Russia. The American-Russian study did not give unanimous conclusions. Dr. Maples and American anthropologists believed that the bones attributed by the Russians to Anastasia belonged to a 19-year-old woman - no younger[I]. At the same time, we know that Anastasia was born in 1901 and in 1918 she was 17 years old.

This research example, correlated by Professor Raoul Perrot's current research, proved the rescue of Anastasia Nikolaevna Romanova by the photos from my family archive, photographs that clearly represent the life of my great-grandmother, Grand Duchess Anastasia.

6- Chronology of the most important events in the life of Grand Duchess Anastasia Nikolaevna Romanova:

- 1901, June 5 (according to the Julian calendar), the birth of Anastasia in Peterhof, St. Petersburg province.
- 1914, before the First World War. Dmitry Ivanovich Kalashnikov, Cossack, Officer in the Tsarist Army, was summoned to St. Petersburg to meet Tsar Nikolay II Alexandrovich. Anastasia's rescue plan was prepared in advance.
- 1917, during the revolutionary uprising, it was decided to apply the rescue plan and take Grand Duchess Anastasia to a safe place.
- 1931 Anastasia married a Cossack, my great-grandfather Kuzma Vasilyevich Romaschenko.
- 1933 she gave birth to a daughter, my grandmother Tamara.
- 1937, she gave birth to a son, Vasily.
- 1946, becomes a widow. Since then, she devoted the rest of her life to her own children, grandchildren, great-grandchildren.
- 1985, February 16, date of death of Anastasia Nikolaevna Romanova in USSR: at the funeral the Military Brass Band played.

7- Final part

My appeal to everyone who personally believes in the Almighty and in the fact that, according to His Will, almighty time with its properties reveals everything secret! We say thank you! Everyone who believes in the salvation of the Grand Duchess Anastasia Nikolaevna Romanova should be personally grateful to Raoul Perrot, Honorary Professor of Anatomical Anthropology, Doctor of Sciences, Doctor of Biological Sciences. Honorary Expert in Forensic Anthropology at the Court of Appeal of Lyon, to have been able to demonstrate it! He is especially worthy to have his name associated with ours: to all of us, representatives of the direct line of heirs of the Holstein-Gottorp Romanov Dynasty.

As for me, my great-grandmother, Her Imperial Highness Grand Duchess Anastasia Nikolaevna Romanova, with her blessing for the discovery of the mystery of her salvation, gave me her title for safekeeping. My duly proven kinship with Anastasia authorizes me to bear the title of Her Imperial Highness Grand Duchess Alisa Vladimirovna of the Holstein-Gottorp Romanov Dynasty, with the right to transfer before the Almighty and the people to my descendants or relatives, regardless of male gender or through the female line, or their hereditary connection with the Holstein- Gottorp Romanov dynasty.

On behalf of Grand Duchess Anastasia and our Dynasty Holstein-Gottorp Romanov. To everyone who personally believed all this time in the salvation of Anastasia, we express our gratitude and deep recognition for the Faith in the salvation of the members of the Imperial family, for the Hope on the truth and selfless Love for our small and Great Anastasia!

## 7 - Bibliography

[1] Perrot R., 1996. Use of Anthropological Methods in the Identification of Unknown Individuals: Human Remains and Armed Robbers. *14 third Meeting of the International Association of Forensic Sciences*, Tokyo, Japan.

[2] Perrot R., 2005. *Expertise anthropologique comparative de photographies d'œuvres d'art concernant le peintre Benvenuto CELLINI*. Demandée par Mme Laure PIETRAS, Département Design, EURL Laboratoire Cosmo Di Medici, 15 rue de Choiseul, 75002, Paris, France.

[3] Perrot R., 2007. *Expertise anthropologique comparative de photographies de tableaux concernant les peintres Bernardino Luini et Leonardo da Vinci*. Demandée par Mme Stéphanie Bordarier Lascours, Département Design, EURL Laboratoire Cosmo Di Medici, 15 rue de Choiseul, 75002, Paris, France.

[4] Perrot R., 2016. *Expertise biométrique d'une peinture datant de la fin du XIX<sup>e</sup> et pouvant représenter Alice Hoschedé, la seconde épouse de Claude Monet*. <http://www.laboratoireanthropologieanatomiqueetdepaleopathologiedelyon.fr/Alice%20MONET/EXPERTISE%20TABLEAU%20ALICE%20MONET%202016.htm>

[5] Perrot R., 2018. *Expertise biométrique et morphologique d'un tableau pouvant représenter le poète Charles Baudelaire*.

<http://www.laboratoireanthropologieanatomiqueetdepaleopathologiedelyon.fr/EXPERTISE%20BAUDELAIRE%2010%2001%202018.htm>



## 8 - Internet sources

[A]- Dynasty Holstein - Gottorp Romanov

[https://en.m.wikipedia.org/wiki/House\\_of\\_Romanov](https://en.m.wikipedia.org/wiki/House_of_Romanov)

[B]- [https://encyclopedia.1914-1918-online.net/article/revolutions\\_russian\\_empire](https://encyclopedia.1914-1918-online.net/article/revolutions_russian_empire)

[C]- Daughter of Tsar Nikolai II during an illness

<https://www.vintag.es/2020/06/romanov-daughters-shaved-heads.html>

[D]- [https://en.m.wikipedia.org/wiki/World\\_War\\_I](https://en.m.wikipedia.org/wiki/World_War_I)

[E]-Tsarina Alexandra Feodorovna and charity

[https://tzar.ru/index.php/objects/museumgreatwar/nicholas\\_II](https://tzar.ru/index.php/objects/museumgreatwar/nicholas_II)

[F]- [https://en.m.wikipedia.org/wiki/World\\_War\\_II](https://en.m.wikipedia.org/wiki/World_War_II)

[G.a]- Electronic journal: Russkaya Mysl., journalist Nadia Knudsen, Article in Russian: "The Empress did not bless the Pretender" 05.02.202 <https://russianmind.com/samozvancza-imperatricza-ne-blagoslovila/>

[G.b]- Jensen B.,1967. Zarmoder blandt Zarmordere. Enkekejserinde Dagmar og Danemar 1917-1928. Kbhvn,

[H]- Peter Kurth, article: Anna-Anastasia: Notes on "Franziska Schanzkowska" <https://web.archive.org/web/20080208161514/http://www.peterkurth.com/ANNA-ANAST>

[I]- SEARCH Foundation, Inc. Scientific Expedition to Account for the Romanov Children <http://www.searchfoundationinc.org/main-ru> and <http://www.searchfoundationinc.org/>



**Cahiers Lyonnais d'AnthropoBiométrie**, 7, 2023 / Lyon-France ISSN 2260-0442 / *The Contribution of the Similarity Biometrics provides scientific proof that the Grand Duchess Anastasia Nikolaevna was saved during the period of the Russian Revolution of 1917* (Raoul Perrot & Alisa Vladi).