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LE GIA VINH

STUDY OF FACIAL DIMENSIONS IN VIETNAMESE YOUNG PEOPLE

(Their application into aesthetic and plastic surgery)

ABSTRACT — After studying facial dimensions of Vietnamese young people aged from 18 to 25, the author is presenting a data table of facial dimensions in Vietnamese young people. That is why constant of dimensions of facial parts should be established to serve for fundamental research and to our facial aesthetic and plastic surgery.

KEY WORDS: Anthropometry — Facial dimensions — Aesthetic and plastic surgery.

There have been studies on facial dimensions in different world populations and in Vietnamese as well (P. Huard and Do Xuan Hop 1942, N. M. Mikhenson 1962, Trinh Hung Cuong, Nguyen Quang Quyen, Le Gia Vinh 1974, Le Gia Vinh 1985).

Yet these authors almost have not mentioned the female subjects. That is why this time we focused fully to facial dimensions in a group of Vietnamese men and women bringing thus the data for further anthropological studies and especially for aesthetic and plastic surgery.

SUBJECT AND METHOD

We have measured facial dimensions in 1200 Vietnamese (1000 men and 200 women), aged from 18 to 25, without any facial malformation.

The measuring was carried out according to the Martin's method.

On each subject we have measured 18 facial dimensions (*Fig. 1* and *Tab. 1*) with anthropometric instruments made in Switzerland.

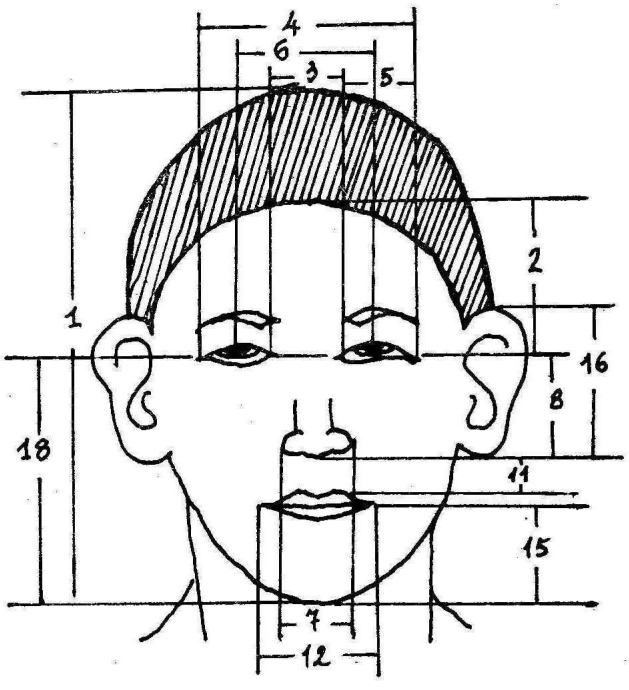

TABLE 1. *Comparison of facial dimensions between Vietnamese young men and women*

	Dimensions [cm]	Men $\bar{X} \pm s$	Women $\bar{X} \pm s$	Coefficient of Student [t]
1	Height of head	24.8 ± 1.2	23.8 ± 0.4	17.2
2	Height of forehead	6.8 ± 0.6	6.3 ± 0.8	5.5
3	Distance between two interior ends of eyes.	3.8 ± 0.4	3.1 ± 0.3	20.0
4	Distance between two exterior ends of eyes	10.4 ± 0.9	9.7 ± 0.3	16.0
5	Length of eyes	3.3 ± 0.3	3.2 ± 0.2	4.1
6	Distance between two iris	6.0 ± 1.2	5.7 ± 0.2	6.8
7	Width of nose	3.8 ± 0.4	3.4 ± 0.3	11.4
8	Length of nose (to the base of nose)	5.1 ± 0.3	5.4 ± 0.3	8.8
9	Length of nose (to the top of nose)	5.4 ± 0.4	4.9 ± 0.3	14.3
10	Height of nose	1.8 ± 0.2	1.3 ± 0.1	39.0
11	Length of philtrum	1.3 ± 0.1	1.3 ± 0.1	0.0
12	Width of mouth	5.2 ± 0.4	4.5 ± 0.4	15.2
13	Thikness of upper lip	1.0 ± 0.1	0.7 ± 0.1	25.9
14	Thickness of lower lip	1.1 ± 0.1	1.1 ± 0.1	0.0
15	Height of chin	4.5 ± 0.4	4.2 ± 0.3	8.6
16	Height of ear	5.6 ± 0.5	5.6 ± 0.3	0.0
17	Width of ear	3.2 ± 0.3	2.7 ± 0.2	20.9
18	Distance from the cross of two eyes to the chin	11.0 ± 0.8	10.2 ± 0.5	13.3

RESULTS AND DISCUSSIONS

While analyzing the data in Table 1 we find that majority of facial dimensions of women are considerably smaller than those of men (all coefficients of Student are above 3.25) except length of philtrum, thickness of lower lip and height of earlobe which are the same in both men and women (coefficients of Student = 0).

Although correlative coefficients of different dimensions have not been calculated we may foresee that between the transversal and longitudinal dimensions there are fairly close correlations.

When comparing our data with the data of Khitrov in Russian people (Mikhenson, 1962) we reached following results:

There is a clear difference between the facial dimensions of Vietnamese and Russian peoples, especially in length of eyes (3.3 and 3.2 in comparison with 2.8—3.0). Proportion of distance between two interior ends of eyes and width of nose is approximate 1, whereas this proportion in Russian people is only 0.70—0.75. In some other dimensions, the difference between two compared peoples (Vietnamese and Russian) is non significant.

On studying French people, P. Desfosses (P. Huard and Do Xuan Hop, 1942) noticed that proportion of width of mouth and length of eyes is 1.5. This proportion in Vietnamese men is approximately 1.6 (5.2 ± 0.4/3.3 ± 0.3) and in Vietnamese women is 1.4 (4.5 ± 0.4/3.2 ± 0.2). It clearly show that mouth of women in general is relatively small in comparison with other parts of face. Distances between two interior ends and two exterior ends of eyes of French people are also smaller than in Vietnamese men (3.4 in comparison with 3.8 ± 0.4 and 9.8 in comparison with 10.4 ± 0.9). Proportion of width of nose and width of mouth of Vietnamese women is approximately 0.75 (3.4 ± 0.3/4.5 ± 0.4) also is suitable with results studied on men.

Dimensions of facial sections in Vietnamese young people is as follows:

— First section (from the root of hair(trichion) to the biorbital line: 6.8 ± 0.6 for men and 6.3 ± 0.8 for women.
— Second section (from the (bientokanthion) biorbital line to the lower edge of nose (subnasale): 5.1 ± 0.3 for men and 5.4 ± 0.3 for women.
— Third section (from the lower edge of nose (sub-

TABLE 2. *Comparison of facial dimensions between Vietnamese and Russian people*

Dimensions [cm]	Vietnamese male	Vietnamese female	Russian people
Height of forehead	6.8 ± 0.6	6.3 ± 0.8	5.0—7.0
Distance between two interior ends of eyes	3.8 ± 0.4	3.1 ± 0.3	3.0—4.0
Distance between two exterior ends of eyes	10.4 ± 0.9	9.7 ± 0.3	8.5—10.0
Length of eyes	3.3 ± 0.3	3.2 ± 0.2	2.8—3.0
Width of nose	3.8 ± 0.4	3.4 ± 0.2	2.1—3.0
Width of mouth	5.2 ± 0.4	4.5 ± 0.4	4.5—6.0
Distance from the chin to the lower edge of nose (base of nose)	6.8 ± 0.8	6.2 ± 0.3	6.5—7.5

nasale) to the chin (gnathion): 6.8 $\pm$ 0.8 for men and 6.2 $\pm$ 0,3 for women.

So the proportion of facial sections in men is 4 : 3 : 4 and in women is 3.5 : 3 : 3.5. These proportions are different in Indian people 1 : 1 : 1 (Huard and Do Xuan Hop 1942).

CONCLUSION

After studying facial dimensions of 1200 Vietnamesse (1000 men and 200 women) aged from 18 to 25, the author has presented a data table of facial dimension in Vietnamese young adults and draw the following conclusions:

— Nearly all facial dimensions in young women are considerably smaller than in young men and differ from the other peoples (Russian, Indian, French). How far due to sex, society, geography and race differences is not clear.

— That is why constant of dimensins of facial parts should be established to serve for fundamental research and to our facial aesthetic and plastic surgey.

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Le Gia Vinh
Medical Institute of Hanoi
Vietnam