

Frankfurt horizontal line and location of the cephalometric points is necessary for handling the faciometer and for obtaining the relevant data in respect of the metric facial marks for surgeons and possibly for other practitioners of medicine as well.

2. The degree of damage to the face before corrective surgery can be established, as well as the extent of the relief after the operation. The faciometer enables reiterated checks of the post-operative state under standard conditions for a very long time; this is of great importance for the evaluation of long-term results of surgical treatment, mainly in respect of youth on reaching puberty after the termination of the development of the face.

3. The faciometer permits to study some hereditary facial changes (such as the depth of the nasion and the subnasale points, the protrusion of the lips and the chin along the median line, irregularities and asymmetries, etc.) as well as of their parts in whole families only with the aid of uniform measurements and the evaluation of the deviations found.

4. It offers an opportunity of checking and discovering some microforms of congenital defects of the face in the family-members of the patient suffering from some developed form of congenital anomaly. The standards of facial growth established in the course of measurements of the Czech population from birth until maturity may, among others, serve well to determine the microform in the face.

5. The values and dimensions obtained are indicated accurately, in millimetres or degrees, as is common with other conventional anthropological tools.

6. The apparatus combines the faculties of several measuring instruments currently in use in anthropology.

7. It may serve for purposes of registration of facial deformations occurring not only as a result of congenital anomalies, but also after injuries.

SUMMARY

The authors describe the faciometer — a new apparatus for measuring the size, shape, asymmetry and irregularities of the face and its parts — developed in the Plastic Surgery Laboratory, Czechoslovak Academy of Sciences, Prague (Farkas, Hajniš, 1967; Czechoslovak Patent Specification No. 123,637).

Apart from describing the method and techniques of its application, the authors point out the advantages of the faciometer which combines some faculties of several measuring instruments used in anthropology. The instrument serves for the objective determination of changes in the event of congenital anomalies of the face or after traumatic deformations in this region. It is a suitable device for all plastic surgeons who, in general, are specifically skilled in handling the commonly used anthropometric devices.

REFERENCES

- BAUD, C.: *Rev. mens. suisse odonto-stomatol.* 76: 714—747, 1966.
- BURIAN, F., KLÁSKOVÁ, O., FARKAS, L. G., ČERVENKA J.: *Acta chirurgiae plasticae.* 6.2: 88—109, 1964.
- FARKAS, L. G., HAJNIŠ, K.: *Faciometer, Prague 1967, Czechoslovak Patent Specification No. 123, 637.*
- FETTER, V., DITTRICH J., LESNÝ, I., TOŠOVSKÝ, V.: *Cs. neurologie.* 20: 263—276, 1957.
- FETTER, V.: *Acta Univ. Carol. Biologica.* 1958: 109—119. — *Ibid. Przgl. Antrop.* 24: 97—108, 1958.
- GONZALES-ULLOA, M.: *Plast. and Reconstr. Surgery.* 34.3: 241—246, 1964.
- HAJNIŠ, K., FARKAS, L. G.: *Revista Latino-Americana Cirurgia plástica.* 8.3: 194—210, 1964.
- HAJNIŠ, K., FARKAS, L. G.: *Anthropologie.* 2.3: 11—17, 1965.
- HAJNIŠ, K., FARKAS, L. G., HAJNIŠOVÁ, M.: *Basic Auricular Characteristics in Children with Cleft Anomalies as Compared to the Standards. — Paper read at the VIIIth Conference of Czechoslovak Anthropologists. August 1965, Brno.*
- HAJNIŠ, K., FARKAS, L. G., HAJNIŠOVÁ, M.: *Acta facultatis rerum naturalium universitatis comenianae, Bratislava.* 12: 169—174, 1966.
- LONGENECKER, Ch. G., RYAN, R. F., VINCENT, R. W.: *Plast. and Reconstr. Surgery.* 35.5: 548—551, 1965.
- MARTIN, R., SALLER, K.: *Lehrbuch der Anthropologie.* — G. Fischer, Stuttgart, 1957.
- MESKIN, L. H., GORLIN, R. J., ISACSON, R. J.: *The Cleft Palate Journ.* 2: 40—45, 1965.
- ROSS, R. B., LINDSAY, W. K.: *The Cleft Palate Journal.* 2: 273—281, 1965.
- SCHWARZ, A. M.: *Lehrgang der Gebißregelung. I. II.* — Verlag Urban und Schwarzenberg. Wien—Innsbruck, 1961.
- SOUZA, A. M.: *Revista Latino-Americana Cirurgia plástica.* 8.3: 166—185, 1964.
- WOOLD, Ch. M., WOOLF, R. M., BROADBENT, T. R.: *Plast. and Reconstr. Surgery.* 35.5: 543—547, 1965.

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SUBJECT AND MEANING OF THE ANTHROPOLOGY OF MOTHERHOOD

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Anthropology has been traditionally paying much more attention to problems of men than to those of women. Physical anthropology has determined the differences between both sexes, and a whole scale of characteristics has been worked out beginning with those typically female up to those typically male. Attempts have been made at a constitutional division, where for women in most cases analogous images to the male constitution were being looked for. Exceptionally on the whole was the attempt at providing a typology for women according to fat distribution.

On the other hand, it was obstetricians that looked for a connection between somatotype and gestation. Their attention focused in the first place on the study of pelvic proportions, whose normality presents the fundamental condition of spontaneous birth. Among the Czech obstetricians, Rubeška established the relationship of the body weight to the pelvic proportions of a woman.

A series of clinical types were established (such as pyknic, athenoptotic, intersexual, hypoplastic types) and attempts were being made to express the ability of these types to fertility.

While anthropological work was methodically perfect, but missed the clinical aspect, clinical work, on the contrary, was characterized by a rather liberally understood interpretation of the constitution types, so that the conclusions were sometimes bolder than reliable.

Because of the demographic and medicinal needs a series of basic studies was carried out, where a correlation was found between certain somatic indicators of mother and newborn.

Our conception of what we suggest to call the anthropology of motherhood follows deliberately the previous one.

The anthropology of motherhood is understood by us as the fundamental methodic approach in the anthropological study of woman. The subject of this branch is anthropological observance of woman in relationship to her basic biological function, i.e. gestation. The anthropology of motherhood studies the somatic conditions for gestation, the somatic adaptation of the woman's organism during gravidity, and the somatic changes occurring under the influence of gravidity. It further established the relationships between the somatic characters of the mother and those of the newborn. Thus,

a dynamic branch of functional anthropology is concerned, where the commonly biological aspect is combined with medical one.

In the following, we will try to throw more light upon these basic theses:

1. When determining the norms treating the basic somatic signs of a woman, it is impossible, in our opinion, to neglect the reproductive function. It is a matter of course in andrology that only that man is taken as normal who shows a normal spermiogram. Somatic distinction of a man with normal activity of the gonads from an infantile or eunuchoid one is such as to provide a direct guidance for the clinician in establishing the defect diagnosis, as is shown by Hynie's school. The norm for women, if we exclude the gross deformation originated in whatever way, may analogically comprise all female individuals, if they were rendered pregnant in due time and have given spontaneous birth to a live newborn. That means we make the norm dependent on the fulfilment of the basic biological function of a woman.

Such a biological viewpoint is not an end in itself. Obstetricians, pediatricians, and forensic physicians need exact data concerning the correlations of weight, height, age, parity, weight increases, and their relationships to weight and length of the newborn. Exact physiological norms are required in studies relating to the effect of pathological gravidity upon the condition of newborns, such as gestosis tarda or gravidity endangered by bleeding.

In the course of pregnancy evident somatic changes occur in a relatively short period of 40 weeks, which may reappear several times in the course of a woman's life.

2. A highly interesting branch of anthropology are structural changes. Gravidity provides a unique model for the study of these changes. The first experience of a woman's organism with gravidity has a deep biological meaning. Some authors have expressed their conviction that it is only through the influence of gravidity that a woman matures physically. *Sit venia verbo* — terrain vierge is laden with gravidity in every respect, and the resulting somatic changes at the end of gravidity are important for the estimation of the condition of the individual structures. For female anthropology the subsequent question is of vital importance of how a particular type changes in the course of gravidity. Gravidity, which represents a natural stress, is thus a test for the lability or stability of the individual somatic structures, which emphasizes the importance of the preconceptional condition of the organism.

In the course of ontogenetic development the body weight increases both in men and in women. With the gravidity finished, the organism returns to values such as correspond to its age, deviations may be either positive or negative. These changes may also be of importance to criminalistics when identifying gravid women.

Changes in weight occurring after delivery will depend not only on the constitution, but also on various ecological factors.

3. The anthropology of maternity may serve as an available advantageous method for certain problems of physiology and obstetric pathology. Somatic changes occurring before and after gravidity can be expressed in terms of comparable anthropological factors: e.g. posture, development of musculature, increase of fat, the condition of the plantar arches, pigmentation, growth of mammae, growth of abdomen, and the like. Such data are necessary for the study of body composition, plasmatic volume and vasomotoric changes.

4. Anthropology of maternity completes the efforts of an obstetrician to maintain a sound woman and a sound foetus, the efforts that a woman may not suffer by gravidity even in the aesthetic respect. The bodily signs originating in the course of gravidity may then provide a good guidance to rehabilitation gymnastics during gravidity, which should meet with a far massive and favourable prophylactic response of our population.

5. In Czechoslovakia the ontogenetic trend has a steady place both in physiology and anthropology. Evolutionary anthropology necessarily needs to have its own basis even in the prenatal period. These data are of extraordinary significance in the treatment of the later consequences of an early dysadaptation, as occurs in prematurely born children, in children with low weight at birth, in children where gravidity was being accompanied by bleeding or manifestations of late

gestosis, in diabetic women, in hypertension diseases, and the like.

6. Anthropology of maternity can find application not only in individual observations, but also in ethnic anthropology. Taken from this point of view, gravidity is again a stimulus which affects through its genetically fixed signs all women without exception in various ecological situations. Methodically, gravidity could be used for solving a number of problems. The question is whether the somatic changes in the course of gravidity, and so also the somatic condition of foetus are more dependent upon the bodily mass of mother or rather on racial distinctiveness. Concretely, for example, whether tall women from various populations will show a similar somatic adaptation in gravidity. A possibility also offers itself here to find a racial affinity in an analogous adaptation, and, on the other hand, to deduct the body-affecting ecological factors in the same race.

These were several remarks denoting the sectors the anthropology of maternity is related to. At present, when solving the task of "the adaptation of the organism to gravidity", we avail ourselves two ways completing each other. Big statistical sets allow us to determine the occurrence of basic indicators and trends. A set of individual prospective observations serves to trace the partial links of this complex process.

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DIE MESSUNG EINIGER HANDMASSE MIT HERIGS KONUS

B. SKVAŘILOVÁ

EINLEITUNG

Eines der Probleme, die den Gegenstand anthropometrischer Untersuchungen des Anthropologischen Instituts der Karls-Universität bilden, ist die Wachstumsdynamik der Hand

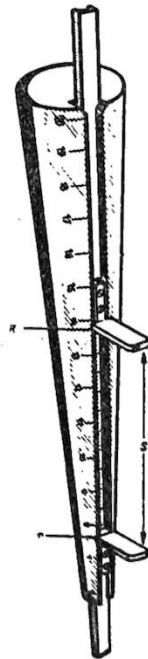


ABB. 1

Meß-Konus nach Herig zur Messung einiger Handgrößen