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OBSERVATIONS ON 100 SCHOOL-BOYS AT ALHAMA
DE ARAGÓN, SPAIN.

By W. L. H. DUCKWORTH, M.D., Sc.D.

Alhama de Aragón is situated at the southern limit of the province of Aragón, and is actually about midway between Saragossa and Madrid. The railway has but recently traversed this region, so that the population has been but little affected hitherto. The general aspect of the landscape is of a type common in Spain to the south of the Ebro valley. Near Alhama de Aragón the general view is of ranges of limestone hills, and often elevated plateaux are seen: broad undulating tracts of land intervene between the various groups of hills, which rarely exceed 1500 feet in height, and are often much lower. The hilly parts are almost devoid of vegetation in September; probably at no time are they well covered. But in certain parts of the lowlands irrigation is practised, and trees, shrubs and herbs abound. The chief stream in this region is the Jalón: this was very low in September 1909, and such water as was present passed down sluggishly; the water is thick, muddy and of a bright terra cotta tint. Abundant mineral springs provide an alternative source of clear but often hot water. All these features are met with in most parts of Aragón.

The population is mainly agricultural. Shepherds tend flocks of sheep or herds of goats in the hills, and the very numerous caves in the weathered limestone crags afford shelter from the extremes of heat and cold. (If any prehistoric strongholds exist in these hills, they are hard to detect without minute search. But the hill-country closely resembles that in S.-E. Spain where the brothers Siret have discovered so many Bronze Age settlements.) In the areas of irrigation, cereals

(especially maize) are cultivated: fruit trees are not so prominent as in the Ebro valley. Vineyards occupy the positions intermediate between the desert uplands and the "huertas" or oases. Near Alhama several marble quarries are now being worked. But on the whole, the conditions of existence are comparatively primitive, so that the locality is a favourable one for observations of the kind now to be set forth in detail.

I had the opportunity of visiting the boys' school at Alhama de Aragón, and measured the head of every boy, making a few other observations on complexion, etc. The total number of individuals was 100: the mean age was $8\frac{1}{2}$ years, ranging from 3 to 13. The parents of all were domiciled in Alhama, and were in most cases Aragonese by long descent. I have appended with the measurements a list of the names of individuals. With regard to the general results of my observations, I may at once state that the local types do not include a large proportion of any element capable of description as "negroid" or even any that might be ascribed to a "Moorish" stock, if thereby we mean a swarthy or sub-negroid type. Yet contrasts do occur, and in the photographs submitted herewith some of these are illustrated. In three pairs of individuals (Figs. 1—6 incl.), a more swarthy type, with coarser features, is contrasted with a fairer type. In one pair at least (Nos. 34 and 57), the darker individual is also characterised by prognathism and a long "cylindrical" head: the corresponding skull must be very like those which I have noticed frequently in a collection of modern crania of Sardinians, the description of which I am preparing for publication. The general physique is rather inferior to what one would observe in rural British districts, but superior to that met with by me in Crete, where I measured a number of school-boys. In the following pages I have used the data from the latter series for comparative purposes.

I now turn to the observations made under the various headings as follows:

Hair. The following table of percentage results exhibits the distribution of various tints of hair-colour according to my judgment:



No. 57 (profile)



No. 34 (profile)

FIG. 1.



No. 52 (profile)



No. 54 (profile)

FIG. 3.



No. 82 (profile)



No. 72 (profile)

FIG. 5.

Figs. 1, 2. Two boys at Alhama de Aragón.

No. 57 (in series). Jesús Lázaro, age 10. Head: (L.) 190, (Br.) 139, (B. I.) 73.2. Slightly freckled. Hair: straight, light-brown. Eyes: dark-brown.

No. 34. Armando Santander, age 10. Head: (L.) 185, (Br.) 138, (B. I.) 74.6. Dark skin. Hair: straight, dark-brown. Eyes: dark-brown. Face prognathous. Head "cylindrical."

Figs. 3, 4. Two boys at Alhama de Aragón.

No. 52. Isidro Latorre, age 8. Head: (L.) 186, (Br.) 135, (B. I.) 72.6. Skin pale. Hair: straight, medium-brown. Eyes: "hazel."

No. 54. Esteban Tello, age 7. Head: (L.) 174, (Br.) 141, (B. I.) 81. Negroid complexion. Hair: straight, jet-black. Eyes: darkest-brown or "black."



No. 57 (full-face)



No. 34 (full-face)



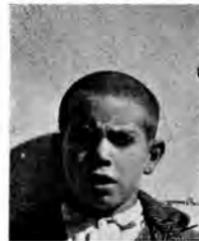
No. 52 (full-face)



No. 54 (full-face)



No. 82 (full-face)



No. 72 (full-face)

Figs. 5, 6. Two boys at Alhama de Aragón.

No. 82. Virgilio Hernando (F. Aragonese, M. Castilian), age 7. Head: (L.) 177, (Br.) 132, (B. I.) 74.6. Skin fair. Hair: straight, "chestnut" or "light"-brown. Eyes: very distinctly light-blue.

No. 72. Germán Jagüé, age 6. Head: (L.) 188, (Br.) 132, (B. I.) 70.2. Skin pallid or sallow. Hair: straight, "medium-brown." Eyes: almost hazel. As in No. 34 (Fig. 1) the occiput is greatly projected backwards.

Hair-colour in school-boys at Alhama de Aragón.

| | | | |
|-------------------|------------|---|-------------------------|
| Very fair | 3 | % | (Mean age 7 years). |
| Fair | 6 | " | (" " 8.6 ") |
| Light-brown | 18 | " | (" " 8.2 ") |
| Medium-brown ... | 30 | | |
| Dark-brown | 34 | | |
| Jet-black..... | 8 | " | (Mean age 9.3 years). |
| Red | 1 | | |
| | <u>100</u> | | " (Mean age 8.5 years). |

Very fair or fair hair is not only associated with grey or grey-blue eyes, but also with eyes of hazel, medium-brown or even dark-brown tint, though the latter coincidence occurred but once. In practically all the instances of individuals with hair lighter than dark-brown (or jet-black) the eye-brows and eye-lashes are darker than the scalp-hair. And again, the lashes are darker than the brow-hair. So that in an individual with hair of medium-brown tint the sequence in darkness of pigmentation would be: eye-lashes darkest, then eye-brows, then scalp-hair. Further, dark brown eyes not infrequently accompanied hair of medium-brown tint, when this sequence of depth of pigmentation would be carried a stage further to include the eye-colour, which was darkest of all.

On the other hand, eyes of a distinct blue tint may be shaded by almost black lashes; the brows and scalp-hair being also very dark.

In general the depth of pigmentation is not so great as might have been expected; and, indeed, my impression on arrival in Aragón from the Basque provinces was to the effect that, in the Basque provinces, brunette traits are more marked and frequent than in Aragón. In the latter province, the combination of blue eyes with "chestnut" hair seems to me much more frequent.

In examining the foregoing table of percentages, the influence of age is suggested by the comparison of the mean ages in different groups. The mean age in years of the fairest haired individuals is either below, or only just above, the mean

age for all. But on the other hand, the older boys have darker hair.

Most of the boys were remarkably pallid considering the season of the year and the climate of Aragón. Three or four were slightly freckled, the red-haired boy distinctly so. This red-haired boy was rather of the fairer type, with bright complexion, than of the dull type. The latter was seen by me in one instance at Tudela: and a young woman at Saragossa had the dull-red "Venetian" type of hair.

Most of the boys at Alhama de Aragón seemed to have straight hair (95.07%), but the closeness of the cutting of the hair minimises the value of this observation. Certainly no case of black curly hair occurred.

Eye-colour. The intermediate tints are most common, as may be gathered from the table appended.

Eye-colour (%) &c., in School-boys at Alhama de Aragón.

| | | | | | |
|-------------------|---------------|------------------------|------|---|-------------------------------|
| Blue | 3.02 | Average age, 6.66 yrs. | | | |
| Grey | 7.06 | " " | 7.4 | " | } Lightest eyes...13.1...7.14 |
| Greenish-grey ... | 3.02 | " " | 7 | " | |
| Light-brown..... | 1.00 | " " | 12 | " | |
| "Hazel" | 27.30 | " " | 8.56 | " | } Medium eyes...46.5...8.98 |
| Medium-brown... | 18.20 | " " | 9.45 | " | |
| Dark-brown | 39.40 | " " | 8.3 | " | } Darkest eyes ...40.4...8.27 |
| Very dark-brown | 1.00 | " " | 7 | " | |
| | <u>100.00</u> | | | | |

The increase in depth of pigmentation, with increasing age, is not so distinct in the eyes as in the hair. The association of eye-colour with hair-colour has been mentioned in the preceding paragraph.

Head-length. The mean value of this dimension in 100 boys is 178.1 mm. The difficulty usually encountered in recording the maximum length of the head in boys was present here. It consists in the fact that the maximum length is really between a point *above* the glabella, and an occipital point. Later on, when after puberty the frontal sinuses are fully developed, the maximum length is between glabellar and occipital points. For the sake of a more accurate comparison

with data for adults, I have recorded the maximum glabello-occipital diameter.

The corresponding mean diameter in a series of seven adult male heads is 193.1 mm., an increase of 15 mm.; the gradual increase in magnitude of this dimension is exhibited in the following table:

Mean value (in mm.) of the maximum glabello-occipital diameter of the head in Aragonese school-boys and adults.

- | | | |
|-----|---|-------|
| (a) | In boys of 5 to 6 yrs (18 examples) | 176.3 |
| (b) | In whole series (100 examples)..... | 178.1 |
| (c) | In boys of 12 to 13 yrs (12 examples) | 179.5 |
| (d) | In adults (7 examples) | 193.1 |

From these figures it is clear that from the age of 5 years to that of 12 years this diameter increases wonderfully little, whereas after puberty the increase is very great, five times as much as in the earlier period. The influence of the frontal sinuses here has been previously remarked. In a report on the same dimensions in Cretan school-boys (which I hope to publish shortly) I have prepared a similar comparison which shows that, in the Cretan head, the increase progresses at a more uniform rate than seems to obtain among these young Aragonese.

Head-breadth. The mean value of this dimension in 100 boys is 138.2 mm. If a comparison of the mean values of this dimension be instituted, we obtain the following results:

Mean value (in mm.) of the maximum cephalic breadth in Aragonese school-boys and adults.

- | | | |
|-----|---|-----------|
| (a) | In boys of 5 to 6 years (18 examples) | 137 mm. |
| (b) | In the whole series (100 examples) | 138.2 mm. |
| (c) | In boys of 12 to 13 years (12 examples) ... | 138.1 mm. |
| (d) | In adults (7 examples) | 145.3 mm. |

And here again, if we take Class (c) as representing the middle period (between the extremes of infancy and maturity), we see that in the seven earlier years this dimension is almost

stationary in point of growth; whereas a very notable increase occurs during and after puberty. Again, also, my Cretan observations exhibit greater precocity in that island, than in Aragón.

Cephalic Index. In this paragraph care must be taken to avoid confusion between the data recorded for *heads* and those for *crania*. The distinction is not always clearly drawn, as may be noted in connexion with the work of even so practised an observer as Professor Flinders Petrie (cf. *Journal of the Royal Anthropological Institute*, Vol. xxxi, 1901, p. 248).

The mean value of the cephalic index of 100 boys is 77·6. The seven adult heads measured furnish a mean value of 75·2. Evidently the variation both in length and breadth will account for the discrepancy observed.

The following table exhibits the mean values at various ages :

*Mean value of the breadth index of the head
in Aragonese school-boys and adults.*

| | | |
|-----|---|------|
| (a) | In boys of 5 yrs to 6 yrs (18 examples) | 77·7 |
| (b) | In the whole series (100 examples)..... | 77·6 |
| (c) | In boys of 12 yrs to 13 yrs (12 examples) ... | 76·9 |
| (d) | In adults (7 examples)..... | 75·2 |

The diminution in the numerical expression is principally due to the great antero-posterior extension remarked after puberty.

In regard to the comparison of our data with those on record for this part of Spain, it may now be mentioned that, according to Deniker (*Assoen. franç. pour l'avancement des Sciences, Congrès de S. Étienne, 1897, reprint, p. 19*) quoting Oloriz, the mean cephalic index for Aragón is 77·4. The seven adult males measured by me thus provide figures below that mean value, which however coincides with the mean provided by the school-boys at Alhama. But from a study of Oloriz' records it is clear that a good deal of local variability exists.

With the view of elucidating the variability of the cephalic dimensions and index in the school-boys of Alhama, I have calculated some of the constants employed by Professor Karl Pearson in statistical investigations of this kind. The values

obtained are set forth in the table following. For comparative purposes I have added the corresponding data from other sets of measurements either made by myself (as on the school-boys of Crete) or published by others in anthropological journals.

| Dimension | Age (Mean) | No. of Examples | Mean* | Prob. error of Mean | σ | C |
|---|---------------|--------------------|-------|------------------------|----------|-------|
| Head-Length : | | | | | | |
| Aragonese school-boys | 8.5 | 100 | 178 | .354 | 5.25 | 2.95 |
| Cretan school-boys | 9.9 | 79 | 173 | .508 | 6.67 | 3.85 |
| Head-Breadth : | | | | | | |
| Aragonese school-boys | 8.5 | 100 | 138 | .285 | 4.23 | 3.07 |
| Cretan school-boys | 9.9 | 79 | 140 | .38 | 6.65 | 4.75 |
| Cephalic Index (on living) : | | | | | | |
| Aragonese school-boys | 8.5 | 100 | 78 | .189 | 2.81 | 3.6 |
| Cretan school-boys | 9.9 | 79 | 81 | .36 | 4.8 | 5.92 |
| British boys (Beddoe) | 16 | 200 | 78 | .128 | 2.70 | 3.46 |
| American school-boys | 9 | 135 | 80 | .22 | 3.74 | 4.675 |
| " " | 5 to 13 | 1003 | 79 | .073 | 3.44 | 4.3 |

* The nearest whole number is taken in each instance; thus 178 is taken not 178.1 which is the actual value for the head-length.

From this table it will be inferred that in respect of head-length the Aragonese boys, with a longer absolute diameter of this kind, are less variable than the school-boys observed in Crete. In respect of cephalic breadth, the Aragonese school-boys are again less variable, though the mean value of this dimension is less than the corresponding figure for the Cretan school-boys.

The table of the cephalic indices is more extensive. From this we see that the variability in Aragón is about the same as in this country, if we admit the comparison of youths of 16 years (British) with school-boys of varying age in Aragón.

The only other comparable data I have been able to work out on similar lines up to the time of writing, are derived from a statistical account of the anthropometry of school-children in Worcester, Mass., U.S.A., and published by Dr West in the *Archiv für Anthropologie* (1894, Bd. 22, pp. 13 et seq.). This yields data for no less than 1003 individuals between the ages

of 5 and 13 years; therefore quite comparable with the data for Alhama de Aragón. The mean cephalic index is slightly higher in the American boys (of parentage with mixed European origin), the variability is also greater than in my Aragonese series, but the much greater number of observations in the total has determined a higher degree of accuracy; this is reflected by the smaller figure for the "probable error" of the mean. My measurements in Crete reveal a greater variability among the Cretan school-boys than among those of Alhama, but it must be remarked that the number of observations in Crete is smaller, and the range of age more extensive. Both factors contribute to the production of a standard deviation (σ) indicative of greater variability.

Lastly, I am tempted to add a note on the comparison of my series of data for the cephalic index in the school-boys of Alhama, with data placed on record by other observers (*a*) in the case of 81 modern male crania in Andalusia, and (*b*) in that of 23 prehistoric male crania from the south-east of Spain (Murcia). The values of the means of these two series must be modified in order to provide a more direct comparison with the first set, since in the two last instances crania, and not heads, were measured. The conventional correction has been added to the proper figures in the table following:

| Provenance | Dimension | No. of Examples | Mean* of Mean | Prob. Error of Mean | σ | C |
|---|----------------|-----------------|------------------------------|---------------------|----------|-----|
| Aragonese school-boys | Cephalic Index | 100 | 78 (77.6) | .189 | 2.81 | 3.6 |
| Andalusian males, modern: adults (crania)† | " " | 81 | 75.85 (=77.85 on head) | .27 | 3.56 | 4.7 |
| Andalusian &c. (Murcia) males, prehistoric: adults (crania)‡ | " " | 23 | 75.9 (=77.9 on head) | .408 | 2.9 | 3.8 |

* Cf. footnote to the preceding table.

† Cf. Medina y Barras, *Ann. de la Soc. Española de Hist. Nat.* T. xxvii, Univ. Lib., MC. 7. 127, p. 8.

‡ Cf. Siret, *Les premiers âges etc.*

In this we see a close similarity in the mean values of the character (cephalic index) throughout the table: and it is seen that the school-boys exhibit variability in a less degree than in

either series brought into the comparison. Herein we find, I believe, some of the advantage in making as many observations as possible within a limited area. This condition was fulfilled in my own investigation, but from the nature of the case, could not be complied with in either of the other two.

I. LIST OF NAMES.

| | |
|-----------------------|--------------------------------|
| 10 José Recalde | 45 Antonio Garcia |
| 11 Pascual Moros | 46 Maisimo García |
| 12 Carmelo Arcos | 47 Vicente Moros |
| 13 José Munilla | 48 Angel Martinez |
| 14 Tomás Menes | 49 Julián Arcos |
| 15 José Penilla | 50 Joaquin Vela |
| 16 Pedro Martini | 51 Gonzalo Herranez |
| 17 José Retrian | 52 Isidro Latorre |
| 18 Antonio Marruedo | 53 Felix Pinilla |
| 19 Frederico Recalde | 54 Esteban Tello |
| 20 Cesar Sebastian | 55 Domingo Dominguez |
| 21 Elias Colás | 56 Leon Arana |
| 22 Pascual Sobrino | 57 Jesús Lázaro |
| 23 Felipe Bueno | 58 Andres Moros |
| 24 Antonio Morcs | 59 Bonifacio Marco |
| 25 Ramon de la Fuente | 60 José Ignacio Matos |
| 26 Santos Martinez | 61 Epifanio Munoz |
| 27 Antonio Torres | 62 J. Vicente Gómez |
| 28 José Blasco | 63 Ambrozio Agnar |
| 29 Manuel Lacasta | 64 Domingo Marruedo |
| 30 José Tarodo | 65 Pedro Esteban |
| 31 Manuel Mateo | 66 Romon Martinez |
| 32 Antonio Gil | 67 Santiago Bueno (or ? Bruno) |
| 33 Patricio Dominguez | 68 Antonio Guajardo |
| 34 Armando Santander | 69 Pascual Vicioso |
| 35 Leoncio Arcos | 70 Luis Marco |
| 36 Manuel Vicioso | 71 Luis Marsol |
| 37 Manuel García | 72 Germán Jagüé |
| 38 Felice Latorre | 73 Antonio Blanco |
| 39 José Corrales | 74 José Gil |
| 40 Manuel Gállego | 75 Pascual Morez Monge |
| 41 Ramon Parral | 76 Luis Polo |
| 42 José Frances Diez | 77 Luciano Parral |
| 43 Laurentino Caraso | 78 Antonio Pinilla |
| 44 José Ducé | 79 Antonio Moros |

| | | | |
|----|--------------------|-----|---------------------|
| 80 | Gonzalo Arcos | 95 | Nicolas Coruago |
| 81 | Clemente Reguilme | 96 | Fernando Caraballos |
| 82 | Vergilio Hernando | 97 | Angel Diez |
| 83 | Angel Laguna | 98 | Juan Vicioso |
| 84 | Enrique Martinez | 99 | Carlos de la Fuente |
| 85 | Innocencio Esteban | 100 | Antonio Moretón |
| 86 | José Maria Casado | 101 | Lorenzo Gil |
| 87 | Crescencio Vocioso | 102 | Miguel Morales |
| 88 | Juan Palacín | 103 | Joaquin Colás |
| 89 | Timoteo Enquita | 104 | Marcos Lorrio |
| 90 | Julio Moros | 105 | Antonio Tarodo |
| 91 | Ricardo Rubio | 106 | Isid Duce |
| 92 | Antonio Bebrían | 107 | Fermín García |
| 93 | Manuel Gaspar | 108 | Felipe Duce |
| 94 | Candido Bartolome | 109 | Adriano Cortel |

II. MEASUREMENTS.

| No. | Age | H. L.* | H. B.† | B. I.‡ | No. | Age | H. L.* | H. B.† | B. I.‡ |
|-----|-----|--------|--------|--------|-----|-----|--------|--------|--------|
| 10 | 13 | 186 | 143 | 76.9 | 30 | 11 | 175 | 139 | 79.4 |
| 11 | 13 | 175 | 141 | 80.6 | 31 | 10 | 181 | 139 | 76.8 |
| 12 | 11 | 177 | 142 | 80.2 | 32 | 12 | 183 | 132 | 72.1 |
| 13 | 12 | 185 | 140 | 75.7 | 33 | 9 | 181 | 141 | 77.9 |
| 14 | 12 | 175 | 134 | 76.6 | 34 | 10 | 185 | 138 | 74.6 |
| 15 | 12 | 187 | 135 | 72.2 | 35 | 11 | 175 | 136 | 77.7 |
| 16 | 10 | 181 | 135 | 74.6 | 36* | 9 | 181 | 136 | 75.1 |
| 17 | 12 | 184 | 134 | 72.8 | 37 | 12 | 168 | 142 | 84.5 |
| 18 | 12 | 178 | 136 | 76.4 | 38 | 10 | 177 | 140 | 79.1 |
| 19 | 11 | 188 | 149 | 79.3 | 39 | 9 | 180 | 143 | 79.4 |
| 20 | 12 | 168 | 138 | 82.1 | 40 | 8 | 167 | 142 | 85.0 |
| 21 | 12 | 176 | 136 | 77.3 | 41 | 11 | 174 | 141 | 81.0 |
| 22 | 11 | 179 | 139 | 77.7 | 42 | 9 | 177 | 140 | 79.1 |
| 23 | 12 | 190 | 146 | 76.8 | 43 | 10 | 180 | 143 | 79.4 |
| 24 | 9 | 176 | 133 | 75.6 | 44 | 11 | 186 | 143 | 76.9 |
| 25 | 8 | 173 | 132 | 76.3 | 45 | 10 | 178 | 142 | 79.8 |
| 26 | 8 | 175 | 132 | 75.4 | 46 | 11 | 176 | 140 | 79.5 |
| 27 | 8 | 175 | 134 | 76.6 | 47 | 8 | 177 | 142 | 80.2 |
| 28 | 9 | 181 | 145 | 80.1 | 48 | 7 | 176 | 141 | 80.1 |
| 29 | 10 | 173 | 132 | 76.3 | 49 | 7 | 171 | 137 | 80.1 |

* H. L. indicates maximum cephalic length, from the glabella.

† H. B. indicates maximum parietal width.

‡ B. I. indicates cephalic index, calculated from H. L. and H. B.

MEASUREMENTS (*continued*).

| No. | Age | H. L.* | H. B.† | B. I.‡ | No. | Age | H. L.* | H. B.† | B. I.‡ |
|-----|-----|--------|--------|--------|-----|-----|--------|--------|--------|
| 50 | 9 | 178 | 139 | 78.1 | 80 | 7 | 172 | 142 | 82.6 |
| 51 | 8 | 174 | 141 | 81.0 | 81 | 9 | 178 | 137 | 77.0 |
| 52 | 8 | 186 | 135 | 72.6 | 82 | 7 | 177 | 132 | 74.6 |
| 53 | 7 | 185 | 136 | 73.5 | 83 | 6 | 171 | 137 | 80.1 |
| 54 | 7 | 174 | 141 | 81.0 | 84 | 6 | 180 | 144 | 80.0 |
| 55 | 10 | 176 | 144 | 81.8 | 85 | 7 | 175 | 140 | 80.0 |
| 56 | 11 | 186 | 142 | 76.3 | 86 | 6 | 176 | 147 | 83.5 |
| 57 | 10 | 190 | 139 | 73.2 | 87 | 7 | 187 | 133 | 71.1 |
| 58 | 10 | 176 | 135 | 76.7 | 88 | 7 | 181 | 140 | 77.3 |
| 59 | 9 | 176 | 139 | 79.0 | 89 | 7 | 176 | 135 | 76.7 |
| 60 | 8 | 182 | 139 | 76.4 | 90 | 7 | 178 | 134 | 75.3 |
| 61 | 8 | 177 | 140 | 79.1 | 91 | 6 | 177 | 135 | 76.3 |
| 62 | 9 | 181 | 143 | 79.0 | 92 | 6 | 178 | 140 | 78.7 |
| 63 | 9 | 175 | 139 | 79.4 | 93 | 7 | 169 | 132 | 78.1 |
| 64 | 7 | 174 | 134 | 77.0 | 94 | 7 | 171 | 137 | 80.1 |
| 65 | 7 | 173 | 132 | 76.3 | 95 | 6 | 174 | 138 | 79.3 |
| 66 | 6 | 180 | 141 | 78.3 | 96 | 5 | 167 | 136 | 81.4 |
| 67 | 7 | 184 | 150 | 81.5 | 97 | 6 | 172 | 137 | 79.7 |
| 68 | 7 | 177 | 146 | 82.5 | 98 | 6 | 187 | 138 | 73.8 |
| 69 | 7 | 181 | 141 | 77.9 | 99 | 6 | 177 | 133 | 75.1 |
| 70 | 6 | 178 | 136 | 76.4 | 100 | 5 | 173 | 136 | 78.6 |
| 71 | 8 | 183 | 144 | 78.7 | 101 | 5 | 170 | 129 | 75.9 |
| 72 | 6 | 188 | 132 | 70.2 | 102 | 5 | 179 | 142 | 79.3 |
| 73 | 8 | 174 | 135 | 77.6 | 103 | 7 | 182 | 140 | 76.9 |
| 74 | 7 | 180 | 132 | 73.3 | 104 | 7 | 176 | 135 | 76.7 |
| 75 | 7 | 182 | 140 | 76.9 | 105 | 6 | 176 | 132 | 75.0 |
| 76 | 8 | 182 | 136 | 74.7 | 106 | 11 | 185 | 140 | 75.7 |
| 77 | 8 | 173 | 134 | 77.5 | 107 | 11 | 181 | 140 | 77.3 |
| 78 | 7 | 187 | 138 | 73.8 | 108 | 9 | 178 | 136 | 76.4 |
| 79 | 8 | 175 | 132 | 75.4 | 109 | 3 | 171 | 134 | 78.4 |

* H. L. indicates maximum cephalic length, from the glabella.

† H. B. indicates maximum parietal width.

‡ B. I. indicates cephalic index, calculated from H. L. and H. B.

ADULTS.

| | | | | | | |
|-------------------|---|----|-----|-----|------|-----------|
| Antonio Perez | 1 | 25 | 190 | 146 | 76.8 | |
| Rafael Lopez | 2 | 62 | 187 | 140 | 74.9 | |
| Carlos Marco | 3 | 26 | 187 | 137 | 73.3 | Blue eyes |
| Mariano Agneto | 6 | ? | 200 | 148 | 74.0 | |
| Lucas Lapeña | 7 | ? | 197 | 154 | 78.2 | |
| Pablo Gascon | 8 | ? | 201 | 149 | 74.1 | |
| Severino Corrales | 9 | ? | 190 | 143 | 75.3 | |

* Shepherds at Alhama.

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