



QOVES STUDIO

# AESTHETIC REPORT

SAMPLE REPORT // TERTIARY EDITION

Last Updated 2022 Feb

# DISCLAIMER POLICY

This report provides general information and discussion about facial aesthetics, orthodontics, and other health-related subjects. The contents of this report is not intended to be and should not be construed as medical advice. Any and all information provided by QOVES, QOVES Studio, and its affiliates are not a substitute for professional medical expertise or treatment.

QOVES, QOVES Studio, and its affiliates accept no legal liability whatsoever arising from or connected to the accuracy, reliability, currency or completeness of any material contained in this report. The QOVES brand does not condone any actions taken as a result of this report, instead of presenting third-party scientific findings to be assessed at the reader's own risk.

**The contents of this report are intended to be informative in helping clarify facial anatomy and provide the tools to continue facial aesthetic discussions for the layperson.**

## Privacy Policy

The contents of this report have been produced for the intended client and all supplied original content by the client including but not limited to images and videos are stored offline for 30 days in the event of revisions or corrections to the supplied report.

The QOVES brand does not use supplied client material for any purpose other than for the intended report the client has provided consent for. By supplying visual content (images, videos) to QOVES, it is implicitly assumed that the client provides consent for QOVES to use it in the client's report.

This produced report is intended for the client only and will not be distributed to anyone other than the client. QOVES reserves the right to store the report offline for up to 1 year for reference purposes. Client-supplied images that have been modified by QOVES will be stored as a whole within the report.

The QOVES brand does use cookies on the QOVES.com website to help aid navigation, analytics and browsing metadata. This process does track browser usage throughout the site.

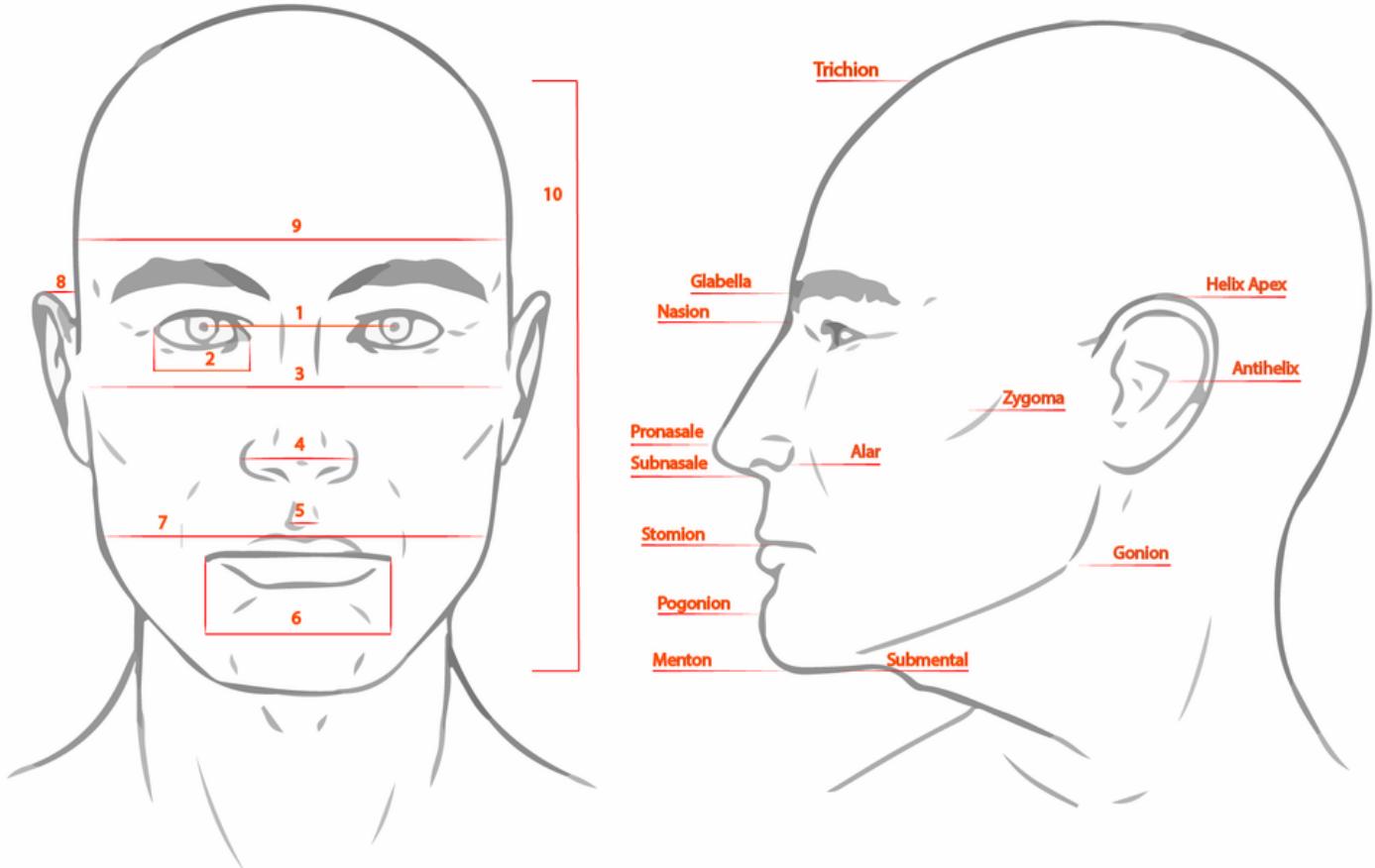
Read the full privacy policy at [qoves.com/privacy](https://qoves.com/privacy)

**QOVESStudio**

The following report was commissioned for  
Sample #2 on 07/05/2021

# GLOSSARY

QOVES Studio



**Fig 1: Soft Tissue Facial Landmarks.**

1. Inter-pupillary width
2. Palpebral Fissure
3. Bi-zygomatic width
4. Alar Nasal width
5. Philtrum width
6. Mouth width
7. Bi-gonial width
8. Helical Distance
9. Bi-temporal width
10. Physiognomic length

**Lateral** - of, at, towards, or from the side or sides

**Medial** - pertaining to the middle; in or toward the middle

**Ipsilateral** - belonging to or occurring on the same side of the body

The basic facial landmarks needed to understand the concepts covered in this report have been outlined in Fig. 1 above. The remaining parameters not mentioned here are explained individually in greater detail throughout.

# INTRODUCTION

In this report, QOVES has approached the commissioned facial analysis from a cephalometric point of view; taking soft tissue measurements and comparing it with established scientific research data. The majority of this research data concerns itself with facial aesthetics and determining 'ideal' cephalometric values in how they correspond to a 1/10 scale of rated attractiveness by the layperson.

This approach makes the report's findings less subjective where recommendations and observations may vary from person to person. However, it should be noted that there are some limitations to the studies used throughout the report and the recommendations throughout should be taken only as empirical guidelines and not entirely precise measurements.

## Limitations

This report does have numerous limitations that need to be taken into account. For one, it's not possible for the QOVES team to ensure the subject is maintaining a Neutral Head Position. This may influence submental and under jaw measurements significantly. Another issue is lighting, camera quality and shadows which may influence the qualitative assessments by 'ageing' the face unfavourably. Also, a proper assessment would require radio-cephalographs to better determine underlying dentofacial structure. These are not available and the QOVES team would like to reiterate that this report is not a medical diagnosis.

# CONTENTS

<b>Cephalometric Variability</b>	5
Ethnic Group Variability	5
<b>Cephalometric Averageness</b>	6
Dentofacial Profile and Jaw	6
Contour	
Nose profile and Cosmetic Soft	6
Tissue Changes	
<b>Periocular Assessment</b>	7
Pretarsal Show	7
Canthal Tilt	7
Eyelid Contour	7
<b>Facial Symmetry</b>	8
Recommendations	8
<b>Transverse Proportion</b>	9
Facial Third	9
<b>Malar Prominence</b>	10
<b>Lip Assessment</b>	10
Lip morphology	10
<b>Profile Assessment</b>	11
Jaw Side profile	11
Gonial Angle	11
Submental Region	11
<b>Closing Recommendations</b>	12
<b>References</b>	13
<b>Appendix</b>	14

# CEPHALOMETRIC VARIABILITY

This section of the report contains the raw data from measured the following cephalometric parameters as defined by Farkas 1994 and Powell 1984. Certain measurements were omitted as they proved redundant in the overall recommendations. The purpose of this section is to test for facial 'averageness,' using established scientific values.

Table 1: Cephalometric Measurement Summary – Caucasian Male

Scientific Data (95% CI): Mean (Range) mm / °	Subject as Measured Data	% Deviation (from mean)	
<b>Profile</b>			
Nasofrontal angle	137.9 (133.6, 142.0)	135	2.10
Nasal tip angle	75.7 (70.1, 81.8)	59	22.06
Nasolabial angle	100.1 (94.0, 105.8)	94	2.59
Nasofacial angle	36.7 (33.0, 40.5)	34	7.36
Nasomental angle	129.4 (124.9, 133.9)	134	3.55
Mentolabial angle	128.6 (124.3, 133.3)	133	3.42
Angle of facial convexity	167.8 (164.1, 171.4)	175	4.79
Angle of total facial convexity	141.5 (138.2, 145.4)	145	2.47
Mentocervical angle	94.3 (86.4, 102.8)	85	9.86
<b>Frontal</b>			
Width of the face	130.7 (105.0, 157.1)	132	0.99
Width of the mandible	..		
Width of the nose	37.9 (32.3, 43.5)	36	5.01
Width of the mouth	48.2 (35.0, 61.7)	50	3.73
Height of forehead I	55.1 (46.8, 63.6)	53	3.81
Height of forehead II	..		
Physiognomical height of the face	187.3 (154.8, 220.0)	187	0.16
Height of the upper face	..		
Height of the lower face	69.4 (64.6, 73.9)	74	6.63
Midface height	65.5 (58.5, 72.1)	60	8.40
Height of the nose	51.1 (44.5, 57.6)	46	9.98
Length of the nasal bridge	..		
Nasal tip protrusion	12.6 (7.0, 18.1)	15	19.05
Height of the upper lip	21.6 (16.9, 26.3)	24	11.11
Height of the lower lip	..		
Vermilion height of the upper lip	..		
Vermilion height of the lower lip	..		
Height of the mandible	47.4 (36.4, 57.6)	50	5.49

Table 1: Subject's measurements.

\*Additional values come from Farkas 2005

Facial averageness is one of the 4 holistic indicators for determining facial attractiveness (**averageness, sexual dimorphism, youthfulness and symmetry**). Research shows that the most average values are often the most aesthetic ones.

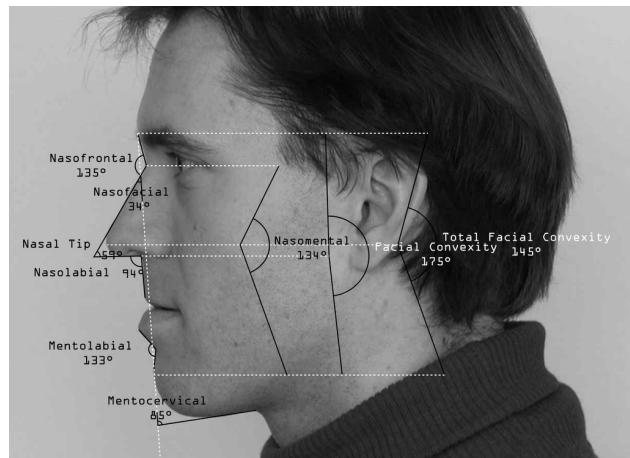


Fig 2. As measured nasal angles.  
Full image attached in the appendix.

## Ethnic Group Variability

The subject, Sample #2, is classified as Caucasian and so all subsequent cephalometric measurements are to be evaluated against 'Caucasian averages' from Interethnic Racial Variations 2015 (Appendix Table 1; Wen et al 2015).

This meta-study is the most comprehensive there is on racial variations taking into account 5 racial groups and encompassing data from 21 ethnicities. In addition, it accounts for reporting bias using a bayesian model of occurrence probability.

# CEPHALOMETRIC AVERAGENESS

\*NOTE: IMAGES HAVE BEEN REDACTED OR CHANGED FOR PRIVACY

With some parameters, it is beneficial to be above average or away from the norm to achieve that 'model tier' look, while for others, a sizable deviation can exponentially hurt the subject's aesthetic harmony. This face had several cephalometric deviations, being wider and taller than average, however as to be seen, much of it is still proportionate. Aesthetic changes to the side profile will help add attractiveness to the face and enhance sexual dimorphism.

**Dentofacial Profile and Jaw Contour** - As per our empirical assessment (without 3D cephalograms), the subject has a fairly retrognathic (convex) profile with a degree of chin retrusion. This is a visible cosmetic flaw and can be corrected with a series of surgical osteotomies (discussed later). The subject has a less defined jaw outline with a highly feminine jaw angle of  $139^\circ$  along with a low-lying cervical point (where the under-chin region meets the throat). In Figure 3B, the jaw outline from gonion to chin was made sharper and the jaw gonion and the gonial angle were masculinized (alignment of jaw gonion with mouth corners, reducing jaw inclination, making the gonial angle  $\sim 120^\circ$ ). The excess soft tissue in the submental region was also removed and the cervical point was raised. The mentolabial angle was then raised and the mentocervical angle was further reduced to match the new jaw outline.

**Nose profile and Cosmetic Soft Tissue Changes** - In Figure 3B, the dorsal nasal contour was made sharper, and the nasal tip angle, nasofrontal and nasolabial angles were reduced. The rounded, upturned nasal tip was brought down and made sharper. The nasal alar (nose wing) was raised and the nasofacial angle was further increased for a more triangular, masculine nose shape. The changes made to the nasofacial profile significantly improved his midface features. The excess soft tissue in the midface and the lower third region was reduced to enhance facial angularity for a lean, youthful appearance. The shape of the eyebrows, undereye weakness, nasolabial folds, and the subtle marionette creases were improved.

Figure 3: A.) Unedited



B.) Edited



The dentofacial profile was significantly improved. The lower jaw contour was made sharp and the jaw gonion was masculinized. The mentocervical angle was reduced and the excess soft tissue in the under chin region was removed. Contour changes were made to the nose to enhance masculine attractiveness. Contour depression, dark circles, and the nasojugal lines in the undereye region were improved. The static smile lines and the creases at mouth corners were smoothed out. These changes significantly enhanced his masculine dimorphic appeal.

## Periocular Assessment

**Pretarsal Show** - The pretarsal show is a measure of how much upper eyelid is exposed at rest. As concluded by Vaca et al 2019, attractive rated eyes had a lower pretarsal show. Typically this is called 'tarsal platform show' where this was given to be 3-6mm (Neimkin et al 2016).

In this case, the subject's eyelids at 4-5 mm are near the upper margin of the ideal range which is acceptable and does not require cosmetic correction instantly. More importantly, they show reasonable symmetry. Any significant asymmetry here is very plainly visible because of how sensitive the eyes are on the face

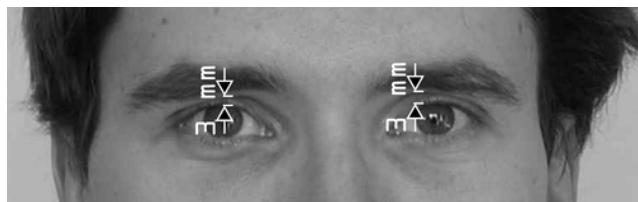


Fig 4: Near-Ideal Pretarsal Show

**Canthal Tilt** - The subject has a positive canthal tilt, i.e. the outer end of the palpebral fissure (eye-opening) is higher than the inner end. This is a significant factor in determining facial attractiveness. Data by Rhee et al 2012 places his 7° to 8° tilt below the +7.13° benchmark set by conventionally attractive Caucasian faces. Positive canthal tilt indicates proper maxillofacial development and genetic health, where without it, the face appears droopy, deformed, and tired. Higher positive canthal tilt (downward tilted) eyes are more attractive as they make the face appear more dominant and masculine. His eyes show acceptable symmetry with both canthal tilts.

\*NOTE: IMAGES HAVE BEEN REDACTED OR CHANGED FOR PRIVACY

Any form of visible asymmetry in the periocular region is immediately noticeable and so his relative symmetry is desirable. Furthermore, his eyes are narrow and almond-shaped which is an aesthetic feature.



Fig 5: Positive lateral canthal tilt

**Eyelid contour** - The periocular region is well-formed with some undereye weakness.

The eyes are hooded with fairly thick eyebrows indicating virility though they lack aesthetic sharp contour and a uniform density of hair. There is no scleral show as the lower eyelids are taut, with no signs of drooping which is ideal. His undereye region shows some hollowness and nasojugal lines can be seen developing. Lastly, the visible dark discoloration in the under-eye region is undesirable.

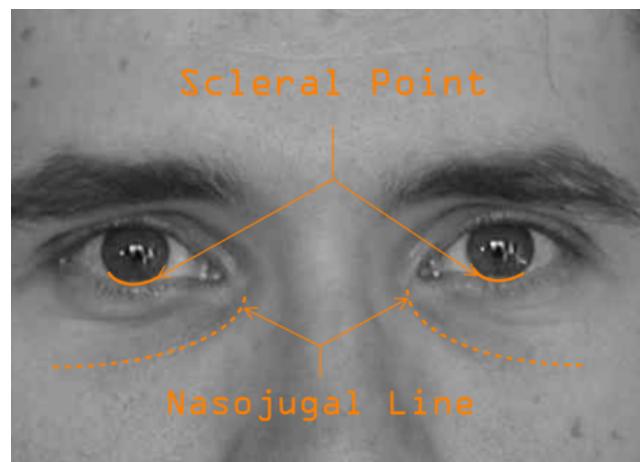


Fig 5.1: Well-formed undereye region with only subtle nasojugal lines. No scleral show.

## Facial Symmetry

\*NOTE: IMAGES HAVE BEEN REDACTED OR  
CHANGED FOR PRIVACY

Facial symmetry is one of the main determinants of facial attractiveness. For facial symmetry, the subject was tested by left-right symmetry flip images taken through the facial midline. As viewed from the front, the left symmetry represents the right side of his face and vice versa for the right symmetry.

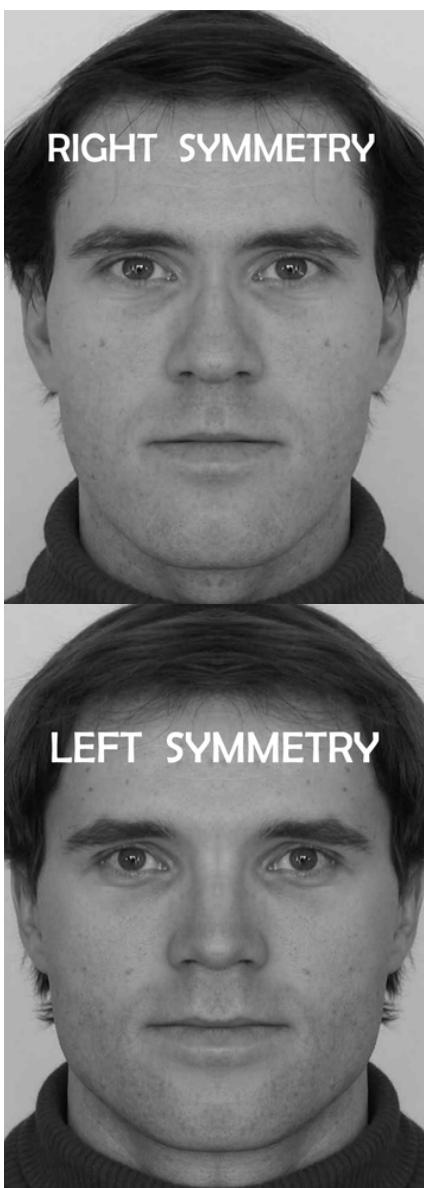


Fig 6: Subject Left-Right Symmetry

From the symmetry diagram, it is clear to see that the face shows considerable symmetry with no obvious signs of asymmetry. However, from the standpoint of facial aesthetics, some degree of asymmetry exists in the facial outline, the nasion, width of the eyes, base of the nose, bizygomatic and bigonial widths, the width of the mouth, and height of the lower third. The method of blending the two morphs was taken from Rhodes et al 1999.

The right symmetry produces a relatively long and narrow face, while the left symmetry produces a short and wide face. The eyes are slightly wider in the left symmetry than the right due to the wider nasion, and they are visibly narrow with a downward tilt (desirable) compared to the right symmetry. The base of the nose is wide with prominent alars in both symmetries (Left>Right). The midface has symmetrical bizygomatic width. As noted from cephalometric measurements and visible in the symmetry photos, the subject's lower third has significant asymmetry. The jaw contour is symmetric as seen by the similar widths of the morphs. Both left and right symmetry taper into the chin sharply (jaw inclination) to form a slightly narrower chin compared to the left symmetry. His face seems reasonably symmetric so this asymmetry has little significance. In addition, the width of the mouth is visibly more in the left symmetry than the right.

**Recommendations:** This section has been very critical for cosmetic evaluation. The most significant deviation in the front profile requiring easy cosmetic correction was with the disproportionate lower facial height. The subject can benefit considerably from surgical and non-surgical nose contouring procedures.

## Transverse Proportion

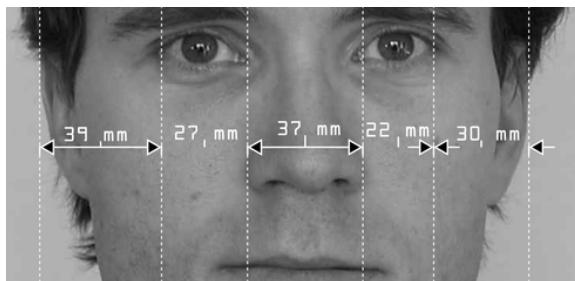


Fig 7: Transverse Proportions

When the face is transversely divided into five transverse subsections, its symmetrical proportions can be better understood. Ideally, each subsection should be 'one eye width' apart. Noted in the subject the left-right symmetry as well, the nose is too wide for the face as it is beyond the eye size by ~10mm and, in addition to the unaesthetic exposure of the nostrils, the nasal alars (nose wings) have a slight anatomical asymmetry across the midline. More importantly, the nasal dorsum and base have slightly deviated towards his left side. That being said, as the subject has wide eyes and the alars have near-ideal alignment with the medial canthus (inner corners of the eye), care should be taken in the cosmetic correction of the nose profile, as making the nose any narrower would disrupt this proportion. Other than that, the right outer fifth is wider partly due to the further outward projection of the right ear pinna.

## Facial Third

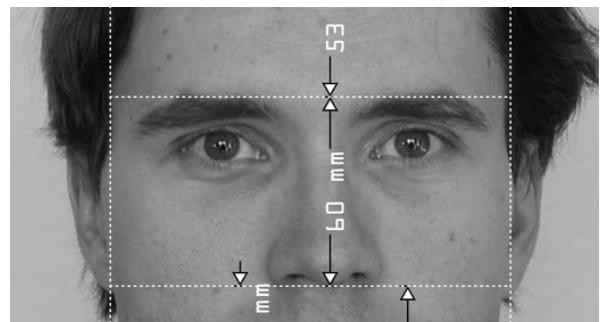


Fig 8: Facial Thirds

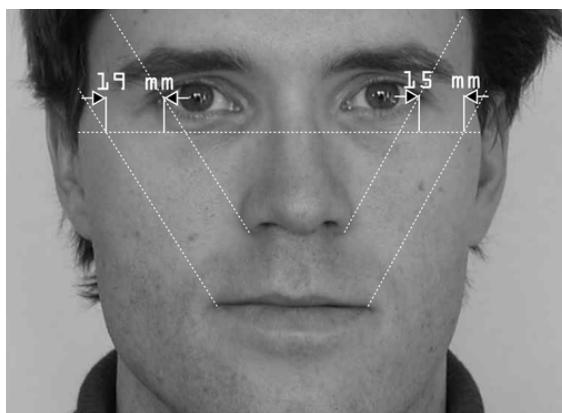
Similarly, the face can be divided into facial thirds to assess vertical asymmetry. Vertical facial thirds should be approximately equal, although the lower facial third may be slightly greater than the middle third in males. When dividing the face into facial thirds, the upper third is shorter (juvenile) whereas the lower third is longer in comparison to the upper and lower thirds (masculine).

Carre et al found that attractiveness perceptions were more sensitive to the height of the midface. Arnocky et al found that women prefer men with shorter midfaces as it has been linked to higher testosterone and fighting ability. The subject's face is relatively taller than the average Caucasian male face. The major part of this deviation is due to the tall upper and lower middle third. His less prominent upper lip height is mainly responsible for a small lower third. A tall upper third serves well in feminizing the face.

According to Facial Aesthetics by Farhad Naini (2008), the proportion between the upper and lower lip subdivision should be 1/3. The subject's lips are competent and symmetrical.

## Malar Prominence

The malar region (cheekbones) can be evaluated for their prominence and position using Powell et al's method by constructing parallel points of intersection. This is used to define if the most prominent part of the cheekbone, the zygoma, or zygomatic arches are in the correct position, heavily influencing face shape. Higher, more outwardly lateral cheekbones are perceived as sophisticated due to their almost exclusive emphasis on high-fashion modeling and produce the highly sought-after diamond face shape.



**Fig 9:** The subject's most prominent points are within the ideal range (15 -20mm)

The subject's cheekbone prominence is within the ideal 15-20mm measurement determined by Powell et al. Evaluated from a frontal perspective, his cheekbone prominence is located in a near-ideal position with regards to the inferior orbital rim and the lateral corner of the eye. Due to excess soft tissue, the cheekbones lack an aesthetic angularity which is highly desired for masculine attractiveness. As such, the contour of the cheekbone is obscured and not prominent which is still considered adequate, since on average, males have flatter cheekbones compared to females. Moreover, as the subject has an above-average facial width, his

lateral midface extends past the malar point, indicating more lateral than outward projection which is an undesirable feature.

## Lip Assessment

The lips are an important factor in human facial expression and play a significant role in facial aesthetics. Although lips are more of a pivotal point on women, large deviations from the norms can still harm the overall look of men as well.

### Lip Morphology

The subject has regularly shaped lips with well-defined vermillion for the average Caucasian male. Aesthetic-wise, they appear adequate and entirely functional (competent) with comparatively less fullness of the upper than the lower lips, although his mouth is an above-average width (+24%) which would otherwise stretch the lip vermillion, causing thinning of lips at the corners of the mouth. Hier et al 1999 found that women prefer fuller lips on men more strongly than men do on women. Upper lip height was measured at 19mm. This is in the desired 18-22mm average range, suggested by (Naini Et al 2008), it is to be expected given his long lower third.

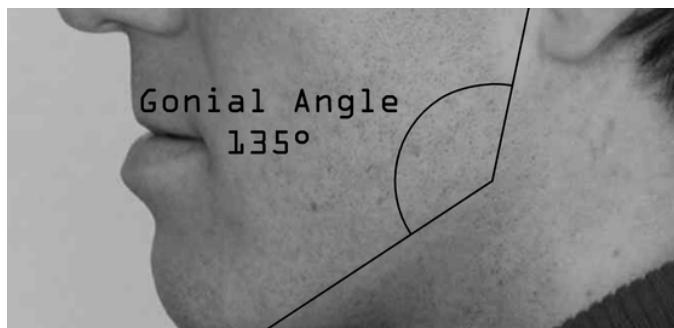
The subject's lips appear to come together fully at rest as seen from the provided photos. The subject does not appear to have everted lips that curl backward.

## Jaw Side Profile

The final part of the profile assessment considers the lower third, in particular, the mandible and jaw contour. Much like the nose, the jaw is a strong indicator of differentiating masculine facial features from feminine ones and is integral to achieving overall facial harmony.

### Gonial Angle

The subject has a less defined jaw outline (inferior mandible) which caused difficulty in measuring the gonial angle. At an obtuse angle of  $139^\circ$ , it is strongly feminine and above the ideal  $130^\circ$  for men (as suggested by Mommaerts 2016; contrasting feminine jaw inclination). A strong masculine jaw angle is found to be in the range of  $100\text{-}120^\circ$  (feminine;  $120\text{-}140^\circ$ ). For this particular subject with juvenile and feminine facial features, a more square and boxy jaw that is shorter and wider with a strong masculine jaw angle of  $\sim 120^\circ$  is essential to add some much-needed masculinity back to his dentofacial proportions, as shown in Figure 3B. The jaw angle and jaw contour in Figure 3B are preferred in men since it considerably improves youthfulness, indicates leanness, and enhances the aesthetic dimorphic appeal. The inferior border of the mandible is lined by a shadow from the chin to the angle of the jaw which is desirable.



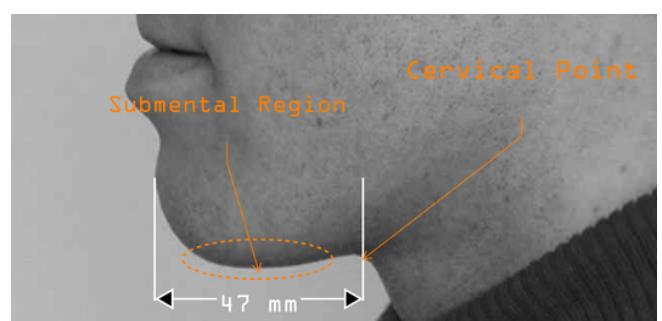
**Fig 10:** Less defined inferior mandible (jaw outline) with a strongly feminine gonial angle of  $139^\circ$ .

## Submental Region

The subject's submental (under chin) region appears weak due to excess soft tissue and skin laxity indicated in orange. This has led to a low cervical point (where the under chin soft tissue meets the throat) causing the chin contour to appear less defined. Ideally, for a well-defined jaw outline, the submental region should pull the soft tissue tightly against the contour of the neck as shown in Figure 3B.

His mentocervical angle measured at  $100^\circ$  which is more than the ideal  $97^\circ$ . Due to recent modeling standards, smaller mentocervical angles are seen as more desirable and unique as male models almost universally have strong jaws, which raise the cervical point.

Modern beauty standards prefer longer submental lengths (50-75mm; Naini et al 2020), pushing the cervical point back. This visually lengthens the jaw while still maintaining dentofacial proportion within the facial plane. The subject's submental length measured at 47mm is at the lower margin of the average range and a longer submental length will make the jaw appear sharper (achieved by pushing the cervical point back).



**Fig 11:** Weak submental region. A taut and sharp submental region will improve virility and masculinity.

# CLOSING RECOMMENDATIONS

This subject has a juvenile, feminine, and oval shape face with only a few strong masculine features (thick eyebrows, widely placed eyes). The subject has significant potential for aesthetic improvement. A lean face with well-defined nose morphology and sharp soft tissue contours, as well as changes to the chin region, jawline, submental, and under-eye region can have noticeable improvement in his masculine appeal.

Various cosmetic changes were made to the dentofacial side profile in Figure 3B. The suspected retrusive chin is a noticeable aesthetic flaw and it might need several cosmetic osteotomies (cutting and reshaping of bones) for cosmetic correction. Orthodontic treatment alone, or combined with orthognathic (jaw) surgery, are treatments of choice. The surgical treatment plan for this subject may include some BSSO (Bilateral Sagittal Split Osteotomy), and upper and lower ASOs (Anterior Subapical Osteotomies). This is usually followed by a genioplasty to adjust the lower jaw bone with the new-made dentofacial profile. Ideal proportions are difficult to achieve but in the right hands, these can have life-changing results.

In addition, skeletal contour changes were made to the subject's lower jaw to masculinize the lower third. The gonion was made sharply curved from a less defined rounded jaw gonion and the gonial angle was reduced. The jaw was made more forward projected from a more downward inclined feminine shape. This can be achieved with surgical manipulation (mandibuloplasty) followed by jaw implants for sharp contours.

Moreover, a submental lipectomy can have ideal results in yielding smooth, sharp, and youthful under-chin contour.

A number of angular deviations of the nose profile were noted in the cephalometric measurements. These were corrected in Figure 3B. The nasal tip morphology was significantly improved and the nasal alars were adjusted to reduce the unaesthetic exposure of the nostrils. The dorsal surface of the nose was made smoother and straighter. A rhinoplasty procedure can significantly enhance the nasal contours, adjust the asymmetry of nasal alars, improve the nasal tip morphology, and correct the angular deviations.

Lastly, the soft tissue changes in the periocular (around eyes) region that causes premature aging of the skin can benefit from non-surgical procedures like dermal fillers, fat grafts, and neurotoxins (injectable Botox) for an aesthetic, fresh and youthful facial profile. These will reduce the puffiness, improve nasojugal lines and protect against further sag caused by aging. For periocular discoloration, caffeine extract eye creams, oral and topical supplements of antioxidants i.e. Glutathione, Vitamin E, and Vitamin C are recommended.

In view of the above discussion, we advise consultation with a board-certified cosmetic facial plastic surgeon for a detailed in-person evaluation and to explore your surgical and non-surgical options.

## REFERENCES

- **Arnocky** S., Carré J. M., Bird B. M., Moreau B. J. P., Vaillancourt T., Ortiz T., et al. (in press). The facial width-to-height ratio predicts sex drive, sociosexuality, and intended infidelity. *Archives of Sexual Behavior*.
- **Cunningham** MR, Roberts AR, Barbee AP, Druen PB, Wu CH (1995). "Their ideas of beauty are, on the whole, the same as ours": consistency and variability in the cross-cultural perception of female physical attractiveness". *Journal of Personality and Social Psychology*. 68 (2): 261-79. doi:10.1037/0022-3514.68.2.261.
- **Farkas** LG. Anthropometry of the Head and Face. 2nd ed. New York: Raven Press, Ltd.; 1994
- **Farkas**, L.G., Katic, M.J., Forrest, C.R., Alt, K.W., Bagić, I.Č., Baltadjiev, G.A., Cunha, E., Cvíčelová, M., Davies, S., Erasmus, I., Gillett-Netting, R., Hajniš, K., Kemkes-Grottenthaler, A., Khomyakova, I., Kumi, A., Kgamphe, J.S., Kayo-daigo, N., Le, T., Malinowski, A., Negasheva, M.A., Manolis, S.K., Ogetürk, M., Parvizrad, R., Rösing, F.W., Sahu, P.N., Sforza, C., Sivkov, S.T., Sultanova, N., Tomazo-Ravnik, T., Tóth, G.M., Uzun, A., & Yahia, E. (2005). International anthropometric study of facial morphology in various ethnic groups/races. *The Journal of craniofacial surgery*, 16 4, 615-46 .
- **Little** AC, Jones BC, DeBruine LM. Facial attractiveness: evolutionary based research. *Philos Trans R Soc Lond B Biol Sci*. 2011; 366(1571):1638-1659.
- **Naini** FB, Cobourne MT, Garagiola U, McDonald F, Wertheim D. Mentolabial angle and aesthetics: a quantitative investigation of idealized and normative values. *Maxillofac Plast Reconstr Surg*. 2017;39(1):4. Published 2017 Feb 5.
- **Naini** FB, Cobourne MT, McDonald F, Wertheim D. Submental-Cervical Angle: Perceived Attractiveness and Threshold Values of Desire for Surgery. *J Maxillofac Oral Surg*. 2016;15(4):469-477.
- **Naini** FB, Gill DS. Facial aesthetics: 2. Clinical assessment. *Dent Update*. 2008 Apr;35(3):159-62, 164-6, 169-70.
- **Neimkin** MG. and Holds JB. Evaluation of Eyelid Function and Aesthetics. *Facial Plastic Surgery Clinics of North America*, 2016-05-01, Volume 24, Issue 2, Pages 97-106
- **Powell** N, Humphreus B. Proportions of the aesthetic face New York: Thieme-Stratton Inc.; 1984
- **Rhodes** G. The evolutionary psychology of facial beauty. *Annu Rev Psychol*. 2006;57:199-226
- **Vaca** EE., Bricker JT., Helenowski I., Park ED., Alghoul MS. Identifying Aesthetically Appealing Upper Eyelid Topographic Proportions, *Aesthetic Surgery Journal*, Volume 39, Issue 8, August 2019, Pages 824-834
- **Wen** YF, Wong HM, Lin R, Yin G, McGrath C. Inter-Ethnic/Racial Facial Variations: A Systematic Review and Bayesian Meta-Analysis of Photogrammetric Studies. *PLoS One*. 2015;10(8):e0134525. Published 2015 Aug

# APPENDIX

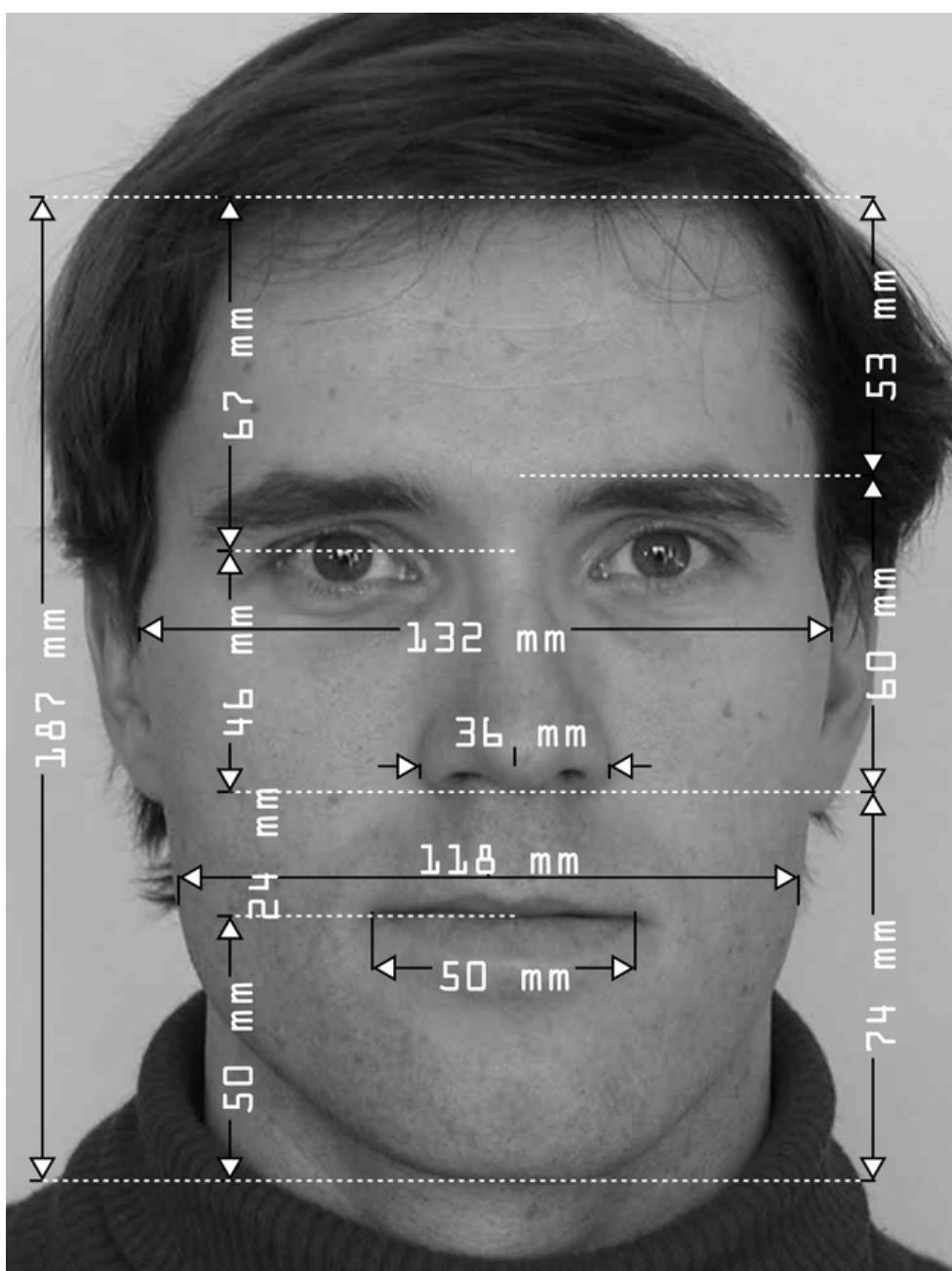
## Inter - Ethnic Variability

Ethnicity/race-specific population norm of facial measurements for males.

	African			Asian			Caucasian		
	No. of studies	No. of subjects	Mean (95% CrI)	No. of studies	No. of subjects	Mean (95% CrI)	No. of studies	No. of subjects	Mean (95% CrI)
Nasofrontal angle	11	1043	129.7 (126.5, 133.1)	4	202	133.7 (128.8, 138.8)	7	360	137.9 (133.6, 142.0)
Nasal tip angle	1	54	78.8 (70.6, 87.3)	2	116	79.7 (72.9, 86.6)	3	191	75.7 (70.1, 81.8)
Nasolabial angle	2	163	87.5 (76.6, 98.5)	6	280	94.7 (88.5, 100.6)	7	360	100.1 (94.0, 105.8)
Nasofacial angle	7	600	39.2 (36.8, 41.4)	1	75	31.9 (26.4, 38.3)	2	97	36.7 (33.0, 40.5)
Nasomental angle	6	430	124.1 (119.9, 128.6)	1	75	132.4 (123.7, 142.0)	5	247	129.4 (124.9, 133.9)
Labiomentral angle	1	54	130.2 (122.0, 138.4)	3	185	134.8 (128.8, 140.4)	5	290	128.6 (124.3, 133.3)
Angle of facial convexity	1	54	168.5 (161.9, 175.3)	1	60	168.3 (161.5, 175.4)	6	340	167.8 (164.1, 171.4)
Angle of total facial convexity	1	54	145.4 (139.6, 150.3)	1	60	144.8 (139.3, 149.9)	3	191	141.5 (138.2, 145.4)
Mentocervical angle	9	774	89.2 (84.1, 94.6)	1	60	97.4 (85.7, 111.6)	3	191	94.3 (86.4, 102.8)
Angle of the medium facial third	..	..	..	..	..	..	..	..	..
Angle of the inferior facial third	..	..	..	..	..	..	..	..	..
Width of the face	1	109	138.1 (113.0, 162.6)	2	293	140.9 (118.7, 160.9)	1	149	130.7 (105.0, 157.1)
Width of the mandible	..	..	..	..	..	..	..	..	..
Width of the nose	2	269	37.9 (31.5, 44.2)	1	75	38.5 (31.2, 46.6)	2	169	37.9 (32.3, 43.5)
Width of the mouth	1	109	51.3 (37.8, 64.4)	2	836	48.4 (37.6, 59.3)	1	149	48.2 (35.0, 61.7)
Height of forehead I	1	109	58.0 (45.1, 71.8)	1	75	57.6 (45.1, 70.9)	4	271	55.1 (46.8, 63.6)
Height of forehead II	..	..	..	..	..	..	..	..	..
Physiognomical height of the face	..	..	..	2	293	189.2 (161.9, 215.9)	1	149	187.3 (154.8, 220.0)
Height of the upper face	..	..	..	..	..	..	..	..	..
Height of the lower face	1	109	72.2 (64.4, 80.0)	1	75	67.4 (59.7, 75.1)	4	271	69.4 (64.6, 73.9)
Midface height	1	109	62.9 (51.9, 73.7)	1	75	60.3 (48.6, 71.1)	4	271	65.5 (58.5, 72.1)
Height of the nose	2	269	47.9 (39.0, 57.1)	1	75	57.7 (45.4, 70.2)	4	271	51.1 (44.5, 57.6)
Length of the nasal bridge	..	..	..	..	..	..	..	..	..
Nasal tip protrusion	2	269	14.2 (7.7, 20.7)	..	..	..	2	102	12.6 (7.0, 18.1)
Height of the upper lip	..	..	..	1	75	21.9 (13.9, 29.8)	4	271	21.6 (16.9, 26.3)
Height of the lower lip	..	..	..	..	..	..	..	..	..
Vermilion height of the upper lip	..	..	..	..	..	..	..	..	..
Vermilion height of the lower lip	..	..	..	..	..	..	..	..	..
Height of the mandible	..	..	..	1	75	44.8 (33.2, 59.1)	2	201	47.4 (36.4, 57.6)

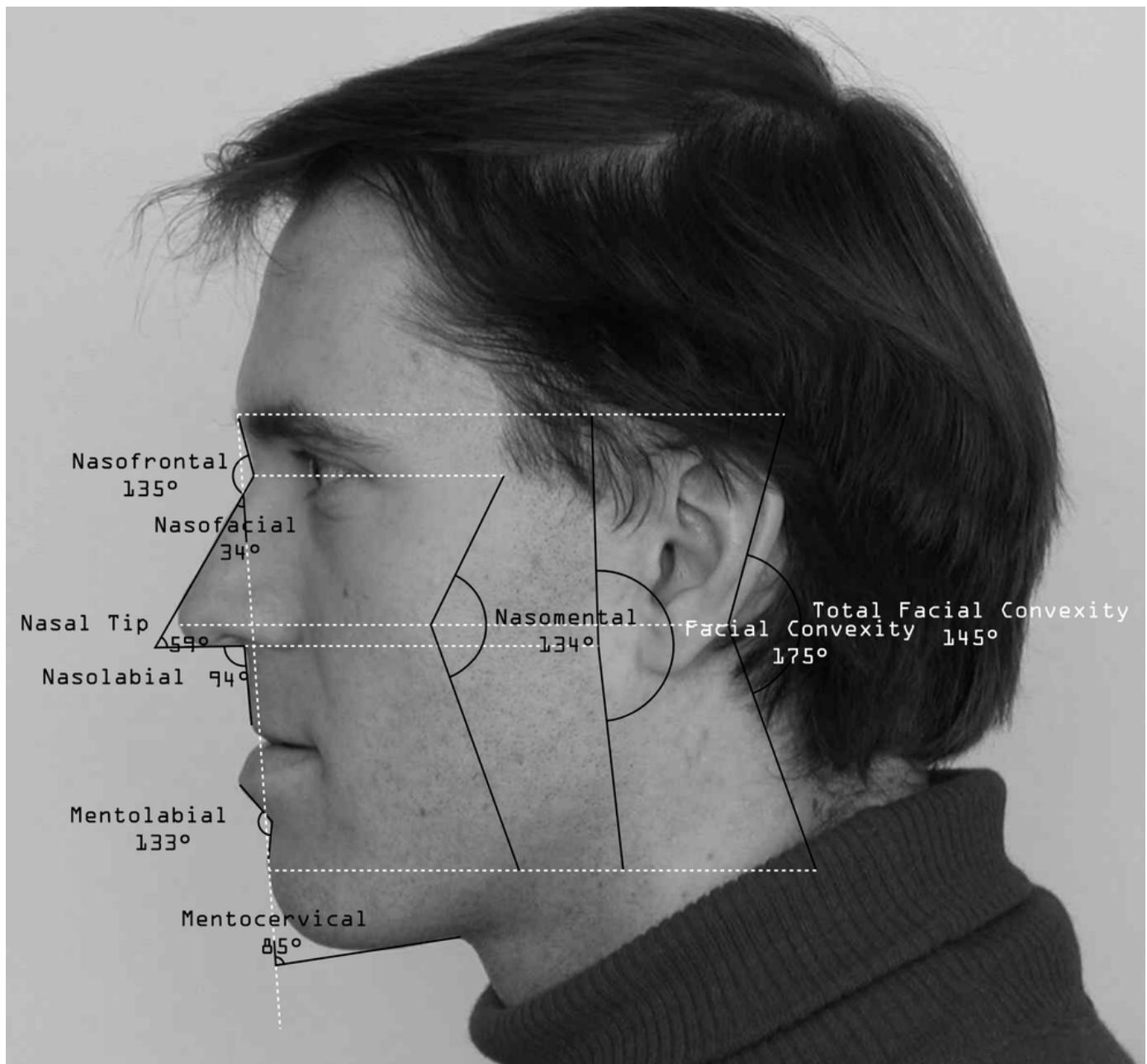
Appendix Table 1: Expected averages by racial group (Wen YF Et al)

## APPENDIX



Appendix Fig 1: Frontal profile as measured

## APPENDIX



Appendix Fig 2: Side profile as measured