

II. *An Essay concerning Giants. Occasioned by some further Remarks on the large Humane Os Frontis, or Forehead-bone, mentioned in the Philosophical Transactions of February, 1684, Number 168. By Dr. Thomas Molyneux, M. D. Fellow of the King and Queens Colledge of Physicians in Ireland, and of the Royal Society in England.*

AMong all the various works of Nature, tho there are none but what are truly admirable, and well deserve our consideration, yet her vast and largest productions in each kind, as they seem master strokes of her art, and the extraordinary efforts of her power, demand in a more especial manner our regard, and usually excite in us a curiosity of making more strict and particular observations on them whene're they come in our way : wherefore being in *Holland* some years since, and meeting there with a most prodigiouly large *Humane Os Frontis* or *Forehead-bone*, they keep in the *Medicine School* at *Leyden*, I was desirous to compare its proportion with the like Bone in a man of ordinary stature ; and it appear'd so remarkable for its stupendious size, that I carefully took the dimensions of it, and sent them over to my worthy Friend *Francis Aston, Esq*, then *Secretary* to the *Royal Society* ; who thought 'twas so singular a Rarity in its kind, and so worthy the consideration of the Ingenious, that the month following he publish'd my Letter, imperfect as it was, in the *Philosophical Transactions* for *February* 1684, number 168.

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Since

Since that time, casually casting my eye on that account, which was writ in the haste of a Traveller, and finding it deficient in several particulars, I thought it worth my while, now I had more leisure, to supply in part those defects, and render it more clear and satisfactory : for considering how few authentick and faithful relations have been yet publish'd to the world of real *Gigantick Bones*, such as are truly what they pretend to be ; an Instance so fair and genuine as this, put in a clear light, and freed from all suspicion and cavil, cannot but be acceptable to the Learned and Inquisitive of this age.

For if by such an example it appears there have been truly Gigantick Bodies, twice or more surpassing the usual size of Men, we not only determine a point that is of some use for the Information of the *Philosopher* and *Naturalist*, by shewing how far the power of Nature may reach, and does sometimes exert it self in the Productions of Humane Bodies beyond her usual bounds ; but at the same time likewise do service in relation to the *Divine*, by confirming the truth of several Passages in *Holy Writ*, where there is mention made of *Giants*, and men of extraordinary strength as as well as bulk of body.

I am not ignorant that already several Authors, both Antient and Modern, have taken pains to register accounts not of *Gigantick Bones* only, but of entire Bodies of vastly *Gigantick Men*, found buried under ground, or in the hollow caverns of Mountains : but these relations are commonly so extravagant in themselves, taken up by hearsay only, and the reports so ill attested, that they almost carry their own confutation, at least they will hardly gain credit with those that are wary, and of a cautious belief.

Whoever has a mind to peruse such surprizing stories, may consult *Thomæ Fazelli Decades de Rebus Siculis*,

culis, and the two Jesuits *Athanasius Kircher* in his *Mundus Subterraneus*, and *Gaspar Shottus* in his *Physica Curiosa*; where he'll find large Collections made of them, and some of the Histories recited very particularly, and at length.

But passing by these sort of accounts, as uncertain, if not very improbable, let us enquire whether we may with better assurance rely on the information relating to this argument, drawn from the several Reliques and Parts, as is said of Gigantick Bodies still in being, and reserved in the Cabinets of many diligent Collectors of Natural Curiosities: and tho I confess there is hardly a considerable collection of this kind, or a printed description of a *Museum* extant, where some part or other of a Giant is not to be met with; yet I am hitherto much of the same opinion, as to most of these Gigantick Remains, that the Historian *Suetonius Tranquillus* was of before me near sixteen hundred years ago; when (giving an account in the life of *Augustus Cæsar*, that he rather pleased himself in adorning his House with these kind of natural Rarities and pieces of Antiquity, than either with curious Images or Pictures) he says, *Ædes suas non tam Statuarum Tabularumque pictarum Ornatu, quam Rebus Vetustate ac Raritate notabilibus, excoluit; qualia sunt Capræis immanium Belluarum Ferarumq; Membra prægrandia, quæ dicuntur Gigantum ossa.*

And certainly, as in his days, so in ours, most of the pretended Giants Remains, such I mean as are truly Bone, (for some are only natural *Petrifications*, and *Lapides sui generis*, accidentally so figured as to resemble this or that part of a man) were Bones belonging to some of the biggest Quadrupeds, as *Elephants*, or some of the largest sort of Fishes of the *Whale-kind*, called by *Pliny* in his Natural History, as they are here by *Suetonius Belluæ*, and *Belluæ Marinae*,

And I am perswaded by what I have seen my self of the like kind, that the large *Tooth* mention'd by *Olaus Wormius*, in his *Museum*, and afterwards particularly described and figur'd by *Thomas Bartholine* in his *Centuria 1. Historiarum Anatomicarum Historia* 98, which they both thought, and would have us believe from its resemblance, was a *Canine Tooth* of a *Giant*, was nothing else but one of the *Teeth* of the *Cetus Dentatus*, or *Sperma-Ceti-Whale*, a *Fish* that is no stranger either to the Seas of *Denmark* their Country, or of these Northern Islands, of which and the *Sperma Ceti* it affords, I have already given some account in Number 227 of these *Transactions*.

Nor is it long since, that the *Bones* of the *Fore-fin* of a *Porpeps*, or a small *Whale*, artificially joyned together, were expos'd in *London* by way of publick shew, as the *Skeleton* of a *Giant's hand*: For all *Fish* of the *Cetaceous* or *Whale-kind*, have this *Fin* made up of just so many ranges of *Joynts*, as naturally answer our five *Fingers*, and all together does not a little resemble a mans hand; whence it pass currently as such with the credulous and ignorant; that either cannot or will not examine the truth of things; they find so great a pleasure in being deceived by what is new to them and rare.

But such like cheats, and how far these kind of *Bones* are false and genuine, may easily be made out by an *Anatomist*, skilful in the *Osteology* of *Animals*: nay, any one may make a probable conjecture at least in this matter, if he but compute according to the dimensions of such *Bones*, what must be the true size or bulk of the *Man*, whose *Body*, as is pretended, when intire, was composed of parts and *Limbs*, analogous or answering in a due proportion to these *Remains*. For if by such computation 'tis found, the product does amount to so vast a structure of parts, and the whole arises to so

so excessive a height, as there is not any natural observation to support, nor any sure authority to countenance such a deduction; then there is a great deal of reason to conclude, or at least suspect they are not genuine, but suppositious and false.

But this *Bone* now before us, though it be so vastly great, cannot in the least be suspected to have appertained to any other creature than a *Man*; for being compleat every way, and answering in all particulars to the common *Forehead-bones* of other men, excepting in its magnitude, as we shall clearly shew when we come to describe its Figure; there cannot be any manner of doubt, but that 'tis certainly humane, especially if we consider that the *Os Frontis* of a man is of so peculiar a make, from the globose shape of his head, that there is not to be found a Bone among all the Animals of the Creation, that bears any resemblance to its Figure, if we except that of a *Monkey*; but all this *Genus* being of a much smaller size than a *Man*, gives us no umbrage of scruple; and whatever reason we may have to make us doubt in other the like cases, yet here we have none, this being beyond all controversy a true and genuine part of a large Humane Animal.

To be capable rightly to understand and form a clear conception, both of the agreement in shape, and of the remarkable difference in size, between this great *Os Frontis*, and the same Bone in a man of ordinary stature: and the better to apprehend what deductions may be made from hence, to determine the true height of the person to whom it formerly belonged, 'twill be requisite we have recourse to the Figures in the annexed Tables.

These I procured by the assistance of my Ingenious Friend and Relation Mr *Hugh Howard*, who, as he pass on his Journey for *Italy*, in the year 1697. when he visited *Leyden* to see the rarities of that place, did me the

the favour to draw from the Bone itself neat *Sketches*, from whence these Copies were actually taken by the curious hand of a Lady Mrs K. M.

Figure the 1st, shews the common shape and size of an *Os Frontis*, or Forehead-bone of a man of an ordinary Stature, drawn half as big as the life, with its convex or outside forward.

- a b c d e is the Line the *Coronal Suture* makes with Indentures, elegantly exprest, going round the upper edge of the Bone, by which it's joined to both the *Offa Bregmatis* or *Verticis*.
- e The place where the *Coronal* and *Sagittal* Sutures meet.
- f The part to which the Bones of the Nose are fastned.
- g g The upper part of the *Orbits* of the *Eyes*.
- h h Holes in the Bone over the *Eyes*, that give passage to the two large Branches of Nerves that supply the *Frontal Muscle*, and those of the *Eye-brows*.
- i i The two *Processes* or *Protuberances* that joyn with the first bone of the upper *Jaw* : these by some accident were broken off the large Bone, and therefore are not exprest in the following Figure.

The measure round the *Ambit* of the *Coronal Suture* from a to g was ten inches, and one tenth of an inch ; in this Bone from c where the *Coronal* and *Sagittal* Sutures meet to f, where the Bones of the Nose are fastened, four inches and a half, from b drawing a *Transverse* line cross the Forehead to d six Inches ; the thickness of the Bone was about a quarter of an Inch.

Figure the 2d represents the *Gigantick Forehead Bone*, exprest in the same posture with the former, and drawn exactly

exactly of half the size, with the Original Bone itself kept at *Leyden*.

Here we may Remark, not only its extraordinary *Magnitude* in comparison with the foregoing Figure, but also its natural and true *Proportions*, every way agreeable to its large Dimensions ; that is, as to its *Circumference, Height, Breadth* and *Thickness*; in all which respects it bears to the greatest exactness a conformity to the Symetry or common rules of Nature, which the Supreme Cause observes in shaping this Bone in other men. Whence 'tis evident that all the next immediately adjoining Bones, which near make up the entire Head, must necessarily have been as well shaped, and of the same proportion with this Bone. Otherwise they could not possibly cohere, so as to adapt themselves closely to one another, and make an entire Globose Skull.

- a b c d e The *Coronal Suture*, in some places a little worn and defaced.
- c The place where the *Coronal* and *Sagittal Sutures* meet.
- f The part where the Bones of the *Nose* were fastened.
- g g The upper part of the *Orbits* of the *Eyes*.
- h h The two Holes for the Nerves that pass into the Muscles of the *Eye-brows* and the *Frontal* Muscle.

The measure round the *Ambit* of the *Coronal Suture* in this Bone from a to e was about one and twenty inches, from c where the *Sagittal* and *Coronal Sutures* meet, to f where the Bones of the *Nose* are fastened, nine inches and one tenth of an inch, from b drawing a transverse line across the *Forehead* to d twelve inches and two tenths of an inch, the thickness of

of the Bone from one Table to t'other about half an inch.

Figure the 3d shews the Reverse or Inside of the same *Gigantick Bone*, drawn likewise in as full proportion. What is most observable in this Figure is the great thicknes of the Bone, mark'd k k, which could not appear in t'other posture; and the sharp and high process of the *Os Cribrosum*, call'd by the Anatomists *Crista Galli*, mark'd l.

To prevent any mistake, 'twill be requisite to observe, that tho the dimensions of both the larger and smaller Bones as set down, and the size of them, as represented in the Figures, do not justly agree, if they be compared together, and examined by a pair of Compasses: yet this difference is not occasion'd either thro any error in the Draughts, or any mistake in the measures; but happens because the dimensions are taken along the convex side of the Bone, and so includes the Sine of its Arch, which in the Draughts of necessity was to be express'd only as it appears, by help of shadowing the Figures, they being plans or flats; and to have done them otherwise, would have been to have drawn them false and preposterous.

By comparing these Figures, 'tis evident what an exact conformity there is in all particulars between this large Bone and the like Bone in a man of a just height; and that they no ways differ but in magnitude: and as to the difference in size between one and t'other, by their dimensions we find the smaller did not answer the greater so much as in half proportion: for where that measured but four inches and a half, this was nine inches and one tenth; and where that was no more than six inches, this was twelve inches two tenths, and so forward: whence it follows, that this great *Os Frontis* was above twice as big every way as a common Bone of; this sort in a man of full growth.

Now

Now, arguing that this Bone bore the like proportion to the stature of the man to whom it belonged that the same Bone does in other men to their height, (which 'tis very reasonable to suppose, since all the parts of our Body constantly answer in a regular symmetry to one another) then I say it must follow, he was more than twice the height that men usually are, according to the common course of Nature. And setting down, as the most moderate computation, but five Foot and a half for the height of a man, he to whom this Bone belonged, must have been more than eleven or twelve Foot high; a goodly stature, and such as may well deserve to be called *Gigantick*.

But some, rather than allow this, tho' so very natural a consequence, may perhaps imagin, that a man might have had such an exceeding large head, of which this bone was a part; and yet at the same time be no taller than another ordinary man. This indeed may be said, but I take it as a meer assertion without ground, and no way probable in itself: for I not only think, 'tis much more likely that there was a Man of this high stature, rather than one of that monstrous absurd make; but I am also fully convinced there never was, nor truly can be a man of that ill shape in nature.

For as I conceive, one of a common size and due proportion of parts as to the rest of his body, could not possibly subsist, while so ponderous and excessive a Mass of Bone as this Skull, with all that superabundant quantity of Brain requisite to fill its spacious cavity, was growing; much less continue so long alive, as to come to maturity of years, or adult and full Manhood; to which we are sure this person must have attained, by the great thickness and solidity of this Bone, as well as its large size.

And tho 'tis true, that sometimes from obstructions or other Morbifick Causes, our *Glands* and softer *Viscera* are so unequally nourished as to grow to an immense size, and vastly surpass their usual bounds; by which means we often see enormous swellings arise both in the inward parts and outward habit of the body; yet such a preter-natural and great excess of growth in a hard and bony part, I don't think yet has been ever observed.

Considering then how groundless an assertion this is, I need add no more concerning it: however, since 'tis the only doubt I foresee can be raised, let us inquire into it yet more particularly, and propose it with all the advantage 'tis capable; that so we may intirely obviate and satisfy whatever objection may be raised on this score.

In favour then of this fancy, let us suppose it may be alledged, that Infants far gone in the *Rickets*, are frequently observed to have great Heads in proportion to their small emaciated Bodies, and that young Children are also liable to another Malady by the Physicians, called *Hydrocephalus*, or Dropsie in the head; which sometimes so dilates it, as to swell their Skull to a more immense size. But neither of these disorders (for I take the cause to be much the same in both cases, only differing in degree) otherwise affect the head, than by a preter-natural collection of serous humours inclosed in the Brain, they extend the yielding sides of the weak and tender Skull, but do not in the least increase its bony substance; nay, on the contrary, they rather diminish it; for 'tis always observed that they reduce it to a more than usual thinness, and sometimes, as I have seen my self, to be no thicker than an Egg-shell or Parchment.

Nor can such Distempers possibly affect those of adult ages, so as to enlarge their Skulls; because all the
Bones

Bones by that time are become solid and firmly knit together, so as to be no way capable of further growth or extension : and hence it is these Maladies are incident to Children, and them only, whilst their Skulls are soft, pliant, and truly membranous, rather than bony. And daily experience assures us, that unless such diseases be timely removed, either by the Physician or Chyrurgeons art, or overcome so early by the strength of Nature, as the Children have time enough to outgrow this disproportion in their heads, by the bulk of their Body coming up to it e're it arise to too exorbitant a degree of magnitude ; they all dye in their Infancy, and their unshapely Skulls are easily distinguished from all others, by the large *Fontanell*, or open in the Mole of the head, that remains membranous, and never becomes like the rest of the Skull a bony substance. And that they cannot possibly arrive at Manhood is plain ; for this monstrous and unequal growth, or rather swelling of their Heads, meeting with no check, but still every day increasing upon them, when it arrives to such a certain degree, that its extravagant dimensions become irreconcilable with the natural functions of the Body, the *OEconomia Animalis* must inevitably sink under the pressure of so great a load, and the whole Machine tend to its dissolution, as not being able to bear any longer with so highly morbid a disposition, in so principal and so extremely necessary a part to life as the Brain, the Fountain of all Spirit, Sense and Motion.

I shall not deny but by one accident or other, some disproportion between the Head and rest of the Body, in such as are grown up to the compleat stature of man, does sometimes happen ; so we hear of those that have had their name from hence, and have been called *Grostheds*, and we see remarkable instances of the like every day : for 'tis in the *Laws of Nature* as in the *Civil*

Laws of our Country, Minute Errors and Niceties are not taken care of by either.

But a disproportion of this kind, tho it may be very conspicuous, and presently taken notice of as unseemly, from its running counter to that manifest proportion, and exquisite symetry of parts, that appears in the curious frame of our bodies, even to the most inartificial eye. Yet if we examine it aright, we shall find the difference in all such like cases, never so extraordinary as to make the disproportion very considerable in itself, tho it may seem so remarkable to the eye.

For, to make this point a little plainer, I find the circumference of a mans head of a moderate, that is, the most common size, is usually about twenty two inches round ; and if we chance to see one of twenty-five or twenty-six on a man of ordinary heighth, which certainly is very rare, it appears large and remarkable ; but should there be found a head still bigger, so as to be twenty-eight or twenty-nine inches in Ambient, (which I am apt to think, for the reasons above-mentioned, has scarce, if ever happen'd, unless where the proportion of the other parts of the Body were such as necessarily required it) such a one, I say, would be really wonderful, and counted monstrous. Yet the circumference of the Head, of which this large Forehead Bone was a part, so far exceeded the largest of these measures, as that it mounted to something above a third part more ; for I compute its dimensions when 'twas intire, and covered with the Hairy-scalp, to have been about forty-four inches round, and therefore must have had a body belonging to it, that bore a proper conformity to this its spacious circumference.

Nor do I apprehend so great a stature as this in a Humane Body, tho it be indeed extraordinary, any way absurd or repugnant to the course of nature, but rather, if duly weighed, very conformable to a certain Anomalous

ious method, if I may so call it, that she apparently affects in the producing most of her Works. For, tho' it be true, that for the most part Nature acts steadily, and brings forth her productions, especially those that are most perfect and elaborate, such as *Vegetables* and *Animals*, according to settled Rules and fixt *Types* or *Models*: yet does she not always tye herself up to the observance of such strict Laws, but that she sometimes falls very much short of her usual standard, and at other times goes as far in t'other extreme, by vastly surpassing the common bounds of her Workmanship.

Thus, to take an instance from her Vegetable Kingdom, we cannot but observe among Trees, and other Plants, though of the same species, that some are of a Dwarf-kind, while others arise to so stupendous a growth, that they more than double the bulk even of such as are esteem'd large in the same Tribe. Several examples of such like *Gigantick Oaks*, and other sorts of exceeding vast Trees, may be seen registred by the curious Mr *Evelyn*, in his useful Book of Forrest-Trees, Chap. 30, nor is it improper to make an Analogy or comparison between the Augmentation of *Animal Bodies* and those of *Vegetables*, tho' apparently very different in their kinds, since 'tis highly reasonable to think, there is not only an affinity in the manner of growth in both, but that 'tis the same principle Nature makes use of for the encrease of one as of t'other.

Nay, we may remark yet further, that Nature is as uncontrollable in her Animal, as she is in her Vegetable productions, and scarce observing any size or standard, acts with as great a degree of Latitude in some of those as she does in these. For example, should we compare that little low race of Horses, some of which I have seen not much bigger than a large Dog, we have from the *Isle of Man*, usually call'd *Manks Horses*, to that lofty, large, and stately breed they have in *Northamp-*

tonshire, in England, or in the Bishopricks of *Liege* in *Flanders*, we may properly enough esteem these in comparison with those a sort of *Gigantick Horse*.

And we may give another more Domestic Instance as remarkable in its kind; that is a sort of Dog peculiar to this Country, the *Irish Woolf-dog*, aptly called by Mr Ray, *Canis Grains maximus Hibernicus*, in his *Synopsis Animalium*, being of the *Grey-bound* kind, and of so beautiful and large a make, that for its curious form, as well as goodly size, it far surpasses all other Dogs of the Creation; and if compared to a common *Grey-bound*, shews itself truly of a *Gigantick breed*: and we may further add concerning it, as the *Giants Stock* of old is extinct, at least in these Countreys, so this *Gigantick Dog* is now so rare, that in a few generations more, I doubt not but twill be quite lost in these parts, and the species perish for ought I know off the face of the earth.

But these Remarks will stand in little stead; nay, are no ways instructive or useful to our present purpose, unless we find that Nature also takes the same uncertain measures in the generation of Mankind; that she does so, I think is not less apparent.

Here I need not inquire whether there has been such people, so much talk'd by antiquity as the *Pigmeys*; for tho' this were a Fable, yet 'tis certainly grounded, as most of these Inventions, on something that was true in Nature. For 'tis agreed of all hands, the *Laplanners* are a Nation remarkable for their low stature, and 'tis sure there are, and have been in all Ages and Countreys those we call *Dwarfs*, and some of them of a most extraordinary small size of Body, particularly the Duke of *Crequi's* famous Dwarf, of whom *Aldrovandus* has given us the Picture and Description, which shew his Parts and Limbs were all fashioned compleat and proportionable, yet his whole
height

height was not above thirty inches, or two foot and a half; and he speaks of others still shorter, that were *Bipedales*, but two foot.

Now if natural causes operate so, as to produce humane Creatures, partaking of all properties common to their kind, of so small a model as to fall short even of half the common standard of their species, I cannot think it unreasonable, supposing we had no other authority for it, to imagin the same natural causes may sometimes act in t'other extreme likewise, and model Humane Bodies from a peculiar *Energy* in the seminal Principles, or a more perfect and through *concoction* in the *Stomach*, and other *Viscera*, whence may proceed a peculiar and extraordinary nutritive faculty in the humours, for the furthering augmentation; or still from some other more latent Spring, or secret Influence, to arise to such a growth as fully to equal twice the height of (what we may then properly call) a *middling stature*, taking the word in the most strict sense.

A manifest Alliance and Congruity is observable in Nature, between the *stature* of mans body, and his *age* during the time of his growth; whence the *Greeks* thought it not improper to express both these by one and the same word *ἡλικία*, which signifies promiscuously *Stature* as well as *Age*. and we find as these two agree in other respects, so especially in this, that as it is hard to say what precise number of years determines the course of mans life, so it is as difficult positively to assign what determinate measure does comprehend the stature of his Body: 'tis easy indeed to pitch on a mean, or what is most common and usual to both cases; and as I said before, that about five foot and a half may well be esteemed the most settled and ordinary degree of height in a man; so about seventy years may justly be allowed the most common period
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of his age : yet daily experience and observation acquaint us with those, that vastly exceed these Limits in both these respects : and as we have certain History that informs that the youngest of these, [a] *Thomas Par*

[a] See an account of him and his age at the end of Dr. *Barr's Treatise*, de ortu & natura sanguinis, where 'tis said that he was 152 years old and nine months.

[b] See his age made out to be 162 years, in the *Philosophical Transactions*, No. 221.

[c] For the Countess of *Desmond's* age, see the *Lord Bacon's Natural History*, Cent. 8. Sect. 755, where he says she was 140 years old.

[d] This *Mrs Eckleston* lived at *Philipstown* in the *Kings County*, was born in the year 1548, and died 1691. so she was 143 years old.

and [b] *Henry Jenkins* both of *England*, and the [c] old Countess of *Desmond* and *Mrs Eckleston* [d] both of *Ireland*, fully completed double that usual term of life ; so we have no reason to question the accounts given us of others, that have been found in stature double the common standard of man. Nay, both these properties, longevity and high stature, do so naturally result each from their proper causes, that they are often observed to become hereditary and run in whole Families ; whence the *Greeks* had their *μυκεσθιοι*, and the *Romans* their *Celsi*, and in *Palestine* of old they had their *Anakims*, or Sons of the Giants.

From these general remarks I think it at least appears that Humane Gigantick Bodies are no way inconsistent, but rather easily reconcilable with the course of Nature. And if we descend still to a more particular inquiry into some clear testimonies and warrantable accounts given us by several Authors of unquestionable credit and veracity, they will sufficiently evince that there have been men in the World, and likely still are, of so large a bulk, and so high a stature of body, as properly to deserve the name of *Giants*.

The first I shall mention was one I saw and measured my self at *Dublin*, in the year 1682. his name *Edmond Malone*, born in *Ireland* at *Portlester*, a Town
in

in the County of *Meath*, his Father, tho a proper man, no way remarkable for his height, but his Mother was of a more than ordinary low stature : When he stood on the bare ground with his shoes off, he measured full seven foot seven inches in height, that is, above two foot taller than a man of a common size.

Walter Parsons, King *James* the first's Porter, born in *Staffordshire*, was much of the same stature ; and I find several other men born in *England* have arrived to about this height : and 'tis not improbable that those of the very tallest Growth in these our *Brittish Isles* have not much surpassed this pitch, where the common standard of height in Humane Bodies, seems considerably shorter than in some of the Neighbouring Countries on the *Continent*.

For in *Flanders* and *Germany*, where men are usually of a larger size, and their Bodies of a grosser make than with us, we meet with Examples that have been much taller, nay, that have exceeded this stature several feet. *Isband Diemberbroeck* in his *Anatomy*, Chap. the first, Book the first, tells us, that he saw himself at *Utrecht*, in the year 1665, a man eight foot and a half high, all his Limbs well shaped, and his strength proportionable to his height, he was born at *Schoonhoven* in *Holland*, of Parents of an ordinary stature.

Mr *Ray* in his *Travels*, page the sixth, mentions this very man, and that he saw him in *Bruges* in *Flanders*.

But that Eminent Physician and Learned Antiquary of the last age, *Johannes Goropius Becanus*, who lived in *Flanders*, has left recorded several Instances of this kind yet more remarkable, and that were of his own knowledge too ; for he says he saw himself a Youth almost nine foot high, a man near ten foot, and a Woman that was quite ten foot in height. Because his Writings are not common, I'll set down his own words,

as I find them in the second Book of that Work he calls *Origines Antwerpiana*, printed at Antwerp, an. 1569. pag. 207. where he says, *Septem vel sex cubitorum Homines nostra quoque etate accidere; vidimus enim Mulierem decem pedes altam; Juvenem item novem pedibus non multo minorem, & alios quoque non ita multo inferioris stature*: and a little further, pag. 212. *Statura est Gigantea hoc ipso tempore quidam Heretansi (opidum hoc est quinque hinc milliariibus situm) ad decem prope pedes longus.*

Pliny the Naturalist in the seventh Book of his Natural History, Chapter the sixteenth, speaks particularly by name of several men in his own age much of the same height, or something taller, than those mentioned by *Becanus*: *Procerissimum hominem (says he) etas nostra Divo Claudio Principe Gabbarum nomine ex Arabia advectum novem pedum & totidem unciarum vidit; fuere sub Divo Augusto semi pede addito, quorum Corpora ejus Miraculi gratia in Conditorio Salustianorum asservabantur Hortorum; Puffioni & Secundilla erant nomina.*

Here Pliny must certainly understand by a Foot the *Pes Romanus* or *Capitolinus*, and *Becanus* and *Diemerbroeck* the *Pes Rhinlandicus* or *Leyden* foot, as we do the *English* foot: but these several measures vary so little one from t'other, that it is scarce worth while to take notice of their difference; for the longest foot of these exceeds the shortest no more than 20 does 19, which in taking the height of these very tall Bodies is so inconsiderable, that it alters the case but very little.

To these undoubted Histories, we may add the many concurring Testimonies given us by various Travellers concerning Gigantick Men, seen in their Voyages in the more remote parts of the World: for 'tis not improbable that where both the Soil and Climate concur, and are naturally disposed to produce Plants, Fruits, and several kind of Animals, of a much larger bulk

bulk than any our Countries afford, such as the *Ostridges* and *Cunters* among Birds, the largest *Crocodiles*, the *Moose Deer*, the *Elephant*, the *Rhinoceros*, the *Hippopotamus*, &c. among Quadrupeds; in those parts of the World, I say, where such like vast creatures are met with, 'tis not unlikely that Humane Animals may also be sometimes found, much of a greater size than any here among us.

Antonius Pigafetta vir integerrime fidei (says *Ulysses Aldrovandus* of him in his *Monstrorum Historia*, pag. 35.) *Gigantem apud Canibales Americae conspicatus est.* And *Andreas Thevet*, the famous Voyager, and Cosmographer to *Henry* the 3d, King of *France* and *Polland*, in his Description of *America*, printed in fol. at *Paris*, 1575. *Livre 27. Chap. 1.* has a passage so satisfactory in this point, and related with such particular convincing circumstances, all of his own knowledge, that I could not omit setting them down at large: Here he tells us, that being himself on the Coast of *Affrick*, in the Territory of *Arguin*, for three weeks together, he chanc'd to meet with a rich *Spanish* Merchant, who had somewhile before suffered Shipwrack by a storm, as he touched at that place in his return homewards from the *South America*: but tho he had lost his Ship, the greatest part of the Merchandize, and most of his Men, yet he luckily saved a Coffers, wherein he had carefully preserved the Skull and Bones of an *American Giant*, he had brought along with him from that Country; who was *eleven foot and five inches* in height, and dyed in the year 1559. These Bones he shewed to Monsieur *Thevet*, who was so curious, that he took the measures of the most principal of them; and he expresses himself on this occasion in these words: *Chose Marveilleuse! & a laquelle a grand peine J'eusse adjouste Foy si Je ne l'eusse veue; d'autant que les oz des Jambes avoient trois grand pieds quatre doigts de long, &*

la Teste environ trois pieds un doigt de tour. That is, A very marvelous thing, to which I could scarce have given any Credit, if I had not seen it my self ; inasmuch as the Bones of the Legs measured full three foot four inches in length, and the Skull was three foot one inch about. Which circumference I observe is exactly proportionable to the length of the Legs, and if we make an allowance for the hair and skin that covered the Skull when he was alive, it falls very little short of the dimensions we have before set down, in computing the size of our Giants Head when it was entire.

And this brings into my thoughts, as if it were not unlikely, that this large *Os Frontis* we have described, might about seventy or eighty years ago (for it seems fresh, and is still solid and ponderous, so that it cannot be very old) have been brought into *Europe* by some of the Trading *Hollanders*, as a natural Curiosity, and proper Sample (and truly a part of the Skull was the fittest choice could have been made of all the Bones of the Body for that purpose) of some huge Gigantick Man, met with in some of their Voyages into *America* : for the *Dutch* about that time held great commerce, had large Colonies, and made considerable Discoveries in *Brasile*, and other the more Southern parts of that quarter of the World.

But this I only conjecture, for by the strictest enquiry I could make with my much esteemed friend Dr *Charles Drelincourt*, their Professor of Anatomy at *Leyden*, I could never learn the least account concerning this Bone, whence it came, or who it was presented it to the University : Nor does it indeed import much whether we discover the true Original of it or no ; 'tis sufficient to our present purpose, that we may from this Bone, as a fair *Specimen*, together with other warrantable Histories, clearly deduce, as I hope I have done, That there have been in Nature Humane Bodies eleven
and

and twelve foot high ; which equals, if not surpasses the stature of the tallest Giant mentioned in Holy Writ.

For, tho Giants are frequently spoken of in the Scripture, yet I do not find the exact measure particularly set down of any one of them except *Goliath* of *Gath* ; whose heighth is expressly said to be, the 1st of *Samuel* chap. the 17th, verse the 4th, but six cubits and a span ; and taking the cubit in the most vulgar and usual acceptation, for a foot and a half, his stature will not amount to above nine foot nine inches. Indeed we may reasonably conclude, that *Og* the King of *Basan* must have considerably exceeded *Goliath* in heighth, if we make an estimate of his stature by the dimensions that are given of his Bedsted, which is said, *Deuteronomy* chap. the 3d verse the 11th, to have been kept as a Memorial of him at *Rabbath* of the children of *Ammon*, and to have been nine cubits in length ; but then we cannot imagine but that his Bed must of necessity have been much longer than his Body ; and the least allowance we can make for the overplus, is the space of nine inches above his Head, and as much below his Feet : and if we make this deduction, 'twill follow he was not above twelve foot high ; much of the same standard with this our Giant, whose Forehead Bone is still kept in the Medicine School at *Leyden*.

Whether or no there have been bodies of men still of a much larger size than those I have here mention'd, I dare not positively determine : but this I may say, that as yet I have not met with any Authority of that weight or proof, so strong as fully to convince me, there really have been such in the World ; and till some such evidence be produced, we may look upon all the stories of those extravagantly Gigantick men, to be little better than the Fables of the Poets of old, or the Whims and Romances of some Modern Credulous

ious and Inventive men; that have indeed so far ground for what they advance, that they only improve and augment what has been certainly real in itself, and likely is still true in Nature.

III. *An Account of the persons Married, Christened and Deceased in all the Dominions of the Elector of Brandenburg, in the year 1698.*

	Married	Christ.	Deceas.
I N der Chur-und Mark-Brandenburg	3702	13792	7149
In der Neu-Ward und Lande Sternberg	1528	5746	3211
Im Herkogthumb Preussen	6161	21803	17091
Im Herkogthumb Magdeburg	1357	5480	3042
Im Herkogthumb Cleve und Graffschafft Marck	1888	6178	4215
Im Herkogthumb Pommern	1714	7244	4827
Im Furstenthumb Halberstadt	488	2297	1192
Im Furstenthumb Minden	525	1937	1326
In der Graffschafft Hohenstein	145	568	415
In der Graffschafft Ravensberg	665	2223	1789
In der Herrschafft Lauenburg und Butow	125	495	421

Married 18298
 Christened 67763
 Deceased 44678

Fig. 2

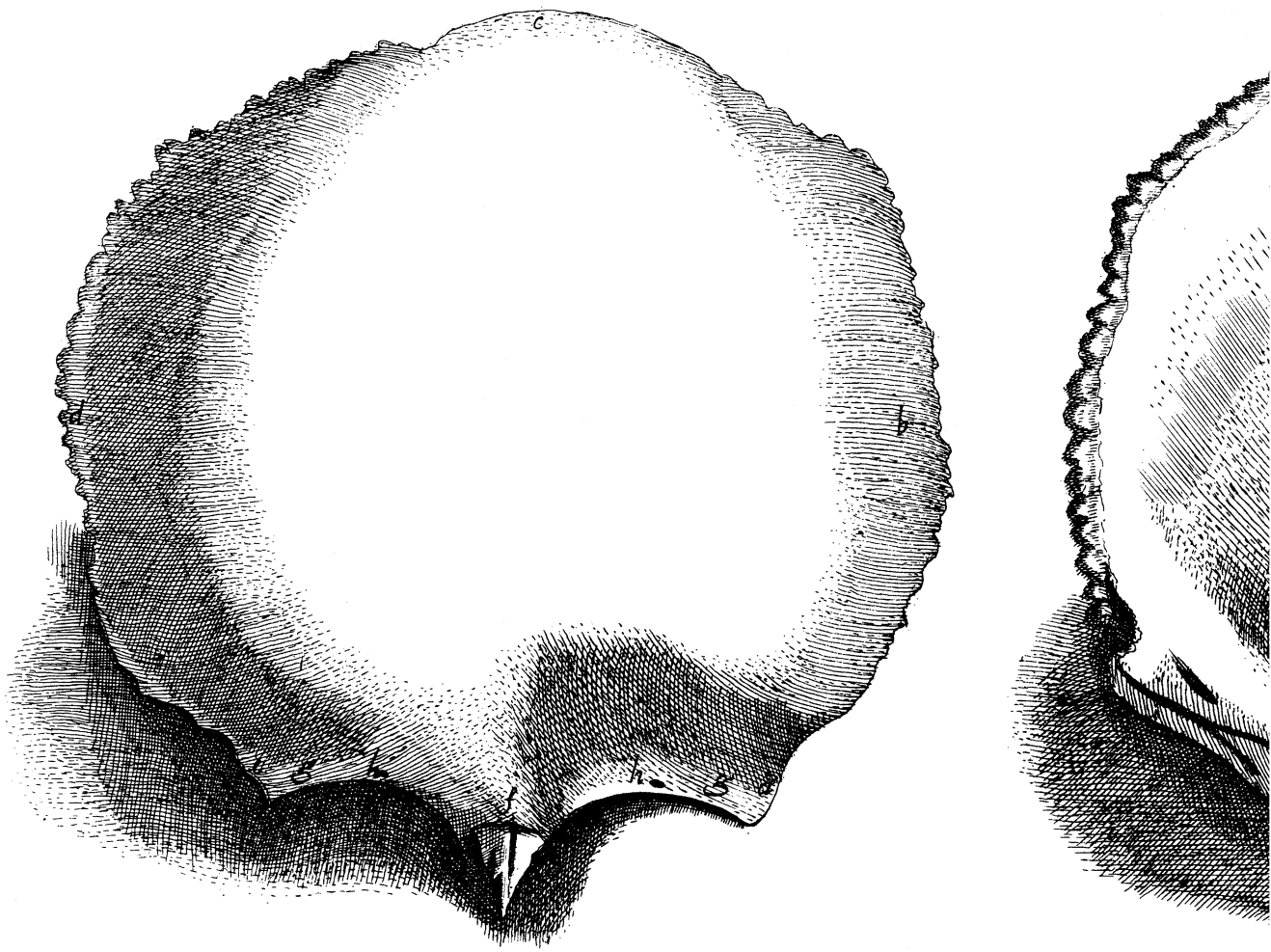


Fig: 3

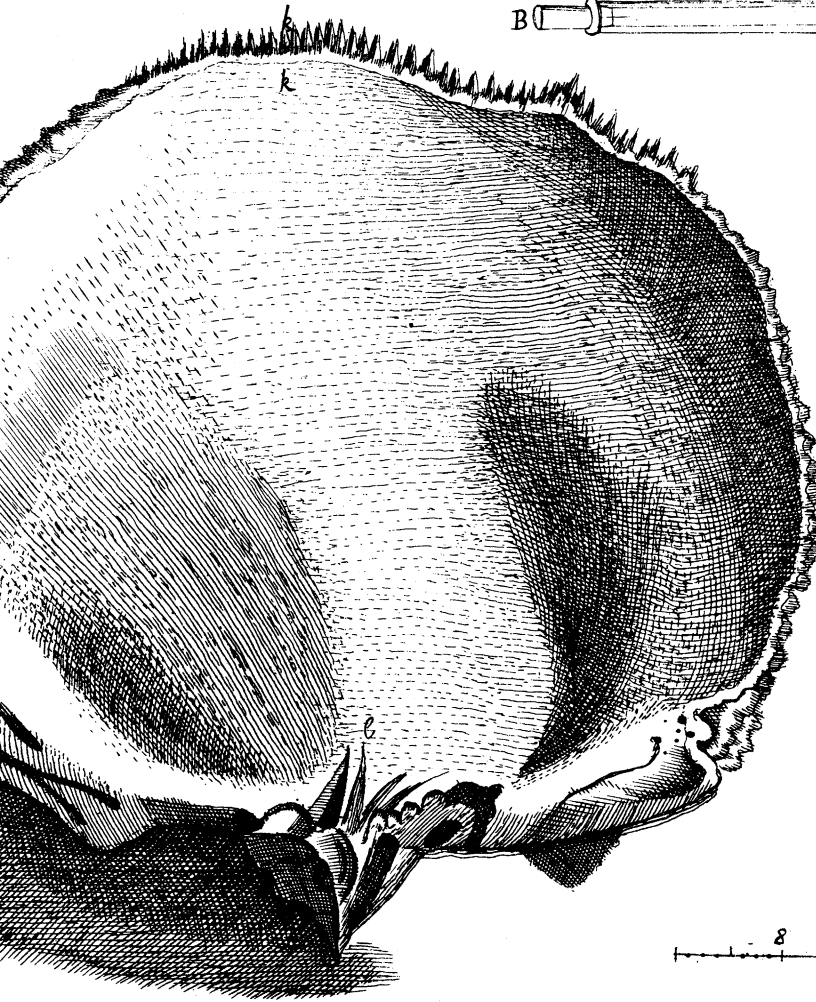


Fig: 4

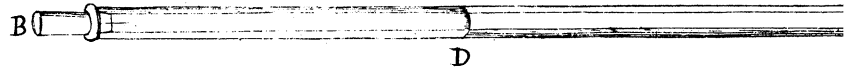
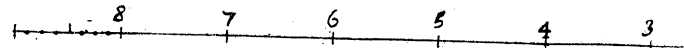
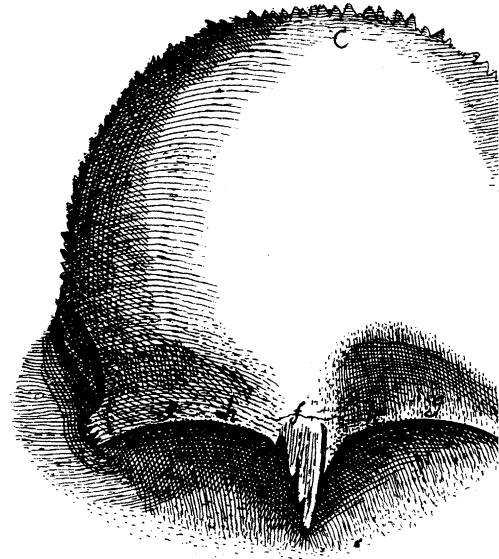


Fig: i



A Scale of Inches

os = Transact = N^o. 262

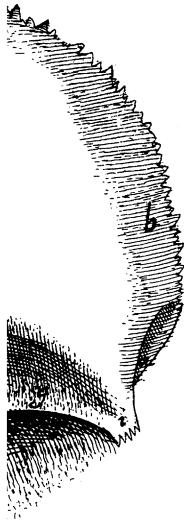
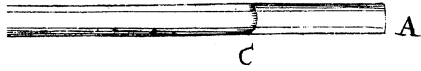
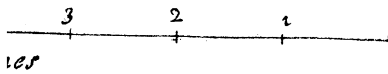
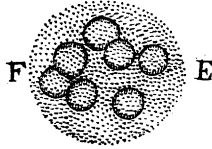


Fig: 5



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Fig: 2

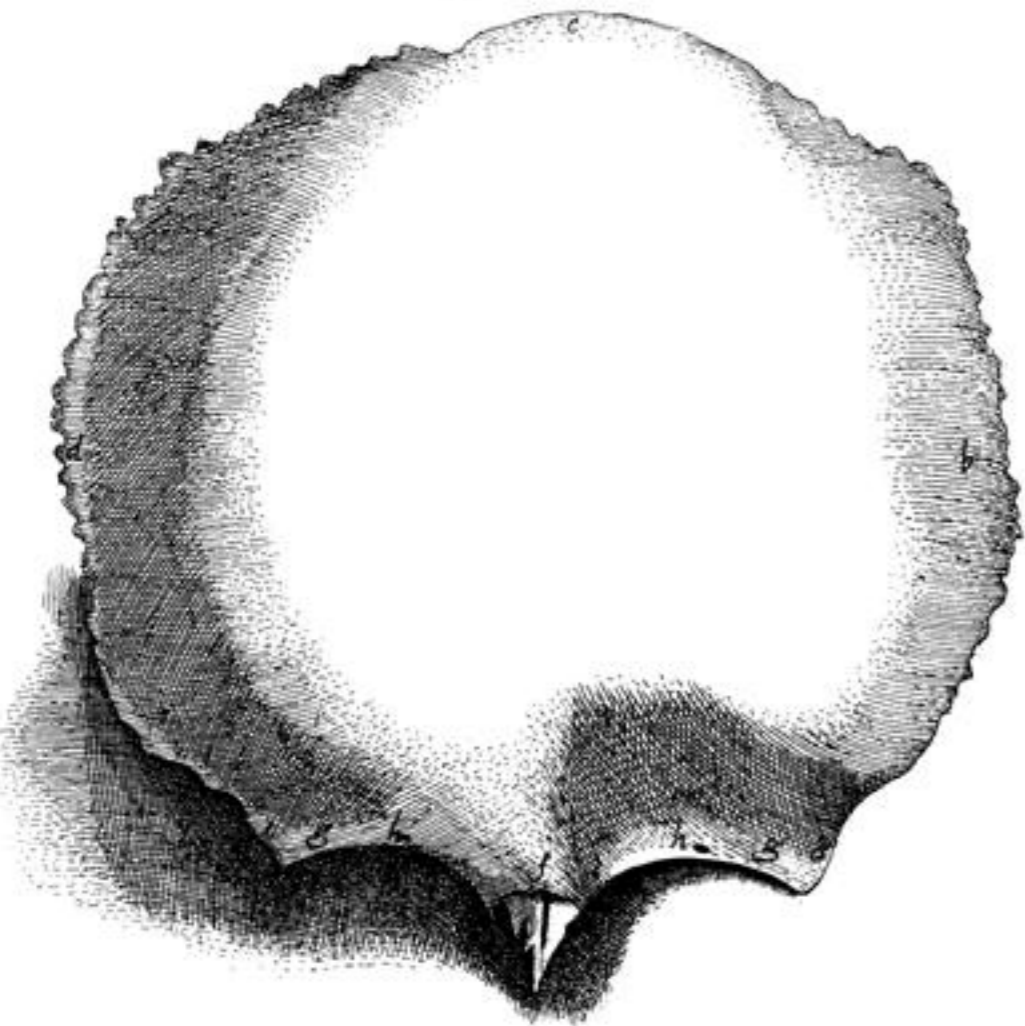


Fig: 3

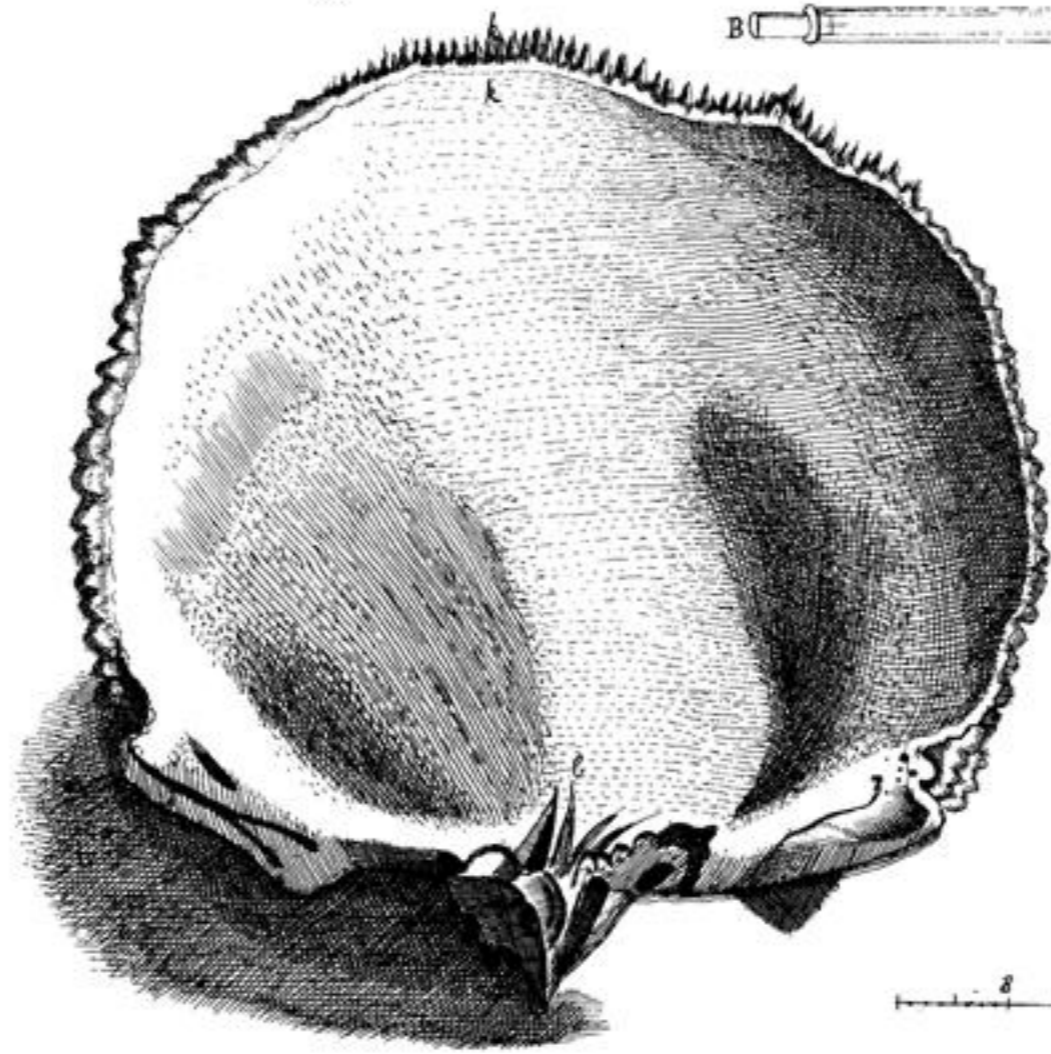


Fig: 4



Fig: 1

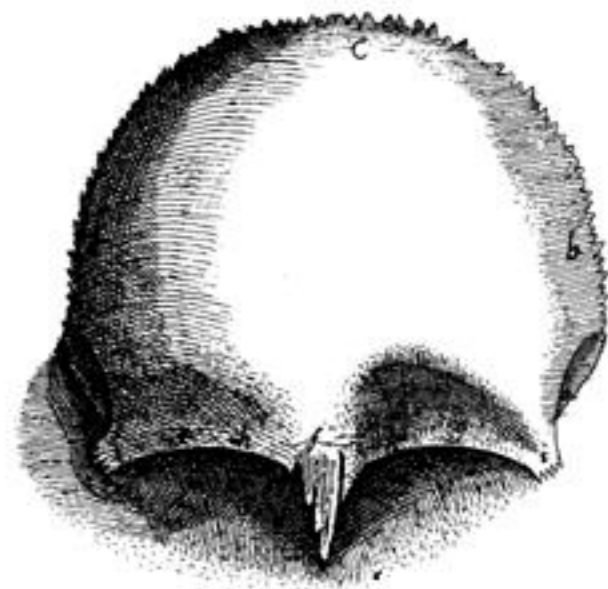


Fig: 5

