The Vitruvian Man of Bronze

The Measure of the "Perfectly Proportioned" Bronze Giant Doc Savage

by

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DEDICATION

Dedicated with admiration, love, and respect to the memory of William Patrick “Will” Murray (28 Apr 1953–25 Aug 2026), the One-and-Only True “Kenneth Robeson” whose painstaking, prolific, prescient if not psychic posthumous collaborations with Lester Bernard Dent (12 Oct 1904–11 Mar 1959) led him to write *The All–New Wild Adventures of Doc Savage*, Book VI (No. 195) “Skull Island” (26 Feb 2013), “The Indomitable Will” without whom none of this would be both possible and necessary.

A Giant "Man of Bronze" Among Average Men

The medical definition of a "giant" is "an adult six feet seven inches or taller."

Twenty-eight-year-old Lester Bernard Dent was six feet two inches (188 centimeters) tall and weighed two hundred twenty pounds when he began writing "The Man of Bronze" on Saturday, 10 December 1932 and making the notes in which he documented Doc Savage as be six feet eight inches (200.3 centimeters or two meters) tall and weighing two hundred seventy pounds (122 kilos).

He chose that height because a standard single doorway is eighty inches (two meters) high and thirty-one inches (ninety centimeters) wide and he wanted Doc to fill it from top to bottom and side to side when he stood it and enter and exit without stooping or turning sidewise.

Dent was two inches (five centimeters) taller and twenty pounds (nine kilos) heavier than the six foot (183 centimeters) two hundred pound (190 kilos) thirty-one-year-old actor William Clark Gable, Junior to who inspired the look they wanted of the first issue with his portrayal of rough-and-tumble he-man French Indochina [now Vietnam] rubber plantation owner and manager Dennis Carson in the M.G.M. pre-Code drama *Red Dust* (22 Oct 1932).

The editors not only made Doc look like Gable on the cover and interior illustrations, but they also made Doc's height and weight match that of the film star without Dent's full knowledge and consent.

In his book *Cheap Thrills: An Informal History of the Pulp Magazines* (Aug 1972, Arlington House, ISBN 978-0-87000-172-7), thirty-nine-year-old cultural historian and novelist Ronald Joseph "Ron" Goulart reprints the instructions that twenty-seven-year-old color cover artist Walter Martin Baumhofer was given for his covers: "*A Man of Bronze—known as Doc, who looks very much like Clark Gable. He is so well built that the impression is not of size, but of power.*"

Baumhofer followed his own instincts for his *Doc Savage* covers, but thirty-six-year-old B&W interior illustrator Paul Orban took the instructions to heart in spades. (See next two pages)

Being two inches taller, Dent literally looked down on Clark Gable and wanted a Doc Savage that he and everyone else would look up to as he stood head-and-shoulders above the average man.

Clark Gable in M.G.M. pre-Code romantic drama Red Dust *released on Saturday, 22 October 1932*

Doc Savage Magazine, *Issue 1 "The Man of Bronze" (Mar 1933) published Friday, 17 February 1933*

DOC SAVAGE—

Unique among men is Doc Savage, man of amazing abilities, and of but one goal in life—to do good for everyone.

With five companions akin to him in spirit, but only approaching him in ability, in knowledge, he goes here and there, like an angel of mercy or the sword of vengeance, helping those who need his services, smiting

His bronzed features, his golden-flaked eyes, are symbols of power and mercy. There is strength unknown in the mighty sinews of his body, and knowledge unfathomable in the brain of this remarkable man. Where others are experts in one line, he is superman in many.

Teacher, leader, friend, he is the one who

Paul Orban "Doc Savage" sidebar in Doc Savage Magazine*, Issue 1 "The Man of Bronze" (Mar 1933)*

30-year-old Clark Gable Hollywood publicity still taken Wednesday, 26 August 1931

While Dent continued giving other characters specific heights and weights, he stopped do so for Doc, whom he henceforth described as a "bronze giant" whose true size was not apparent unless he was close to something to which could be compared because his "perfect physical proportions" made him appear to be an "ideal man" of normal size.

He cited an optical illusion that occurred when Doc made an entrance into a room and crossed it. Doc filled the doorway as he stood squarely within it, but as he moved away from it he appeared to shrink to "normal" size and cross the open space devoid of anything to which he could compare, then seemed to grow as he approached, looming larger and larger as he neared until one inevitably could no longer see eye-to-eye and had to look up.

What is a "Vitruvian Man" That Thou Art Mindful of Him?

Human proportion had been definitively calculated by thirty-eight-year-old Italian Renaissance artist and scientist Leonardo di ser Piero DaVinci in the fourteen by ten inch (thirty-five by twenty-five centimeter) pen, ink, and metalpoint with wash on paper drawing "The Vitruvian Man" *circa* 1490 A.D. stored in the *Gallerie dell' Accademia* {"Galleries of the Academy [of Fine Arts]"} in Venice, Italy (Catalog No. 228).

The drawing shows a nude male figure is shown in two overlapping positions at the same time inscribed inside a circle and a square in two poses. The square represents the physical, earthly world, while the circle represents the spiritual or heavenly realm. In one pose, his arms and legs are spread out to touch the edges of the circle. In the other pose, his arms are straight out to the sides and his feet are together to fit inside the square.

Leonardo used the drawing to show how human anatomy and math connect, symbolizing the core idea of Renaissance humanism. It is call the "Vitruvian" man because it is based on the writings of Vitruvius, an ancient Roman architect from the First Century B.C. who wrote in *De architectura* {"The Architecture"} that the human body follows strict geometric proportions.

The artwork is surrounded by notes written by Leonardo in his famous mirror handwriting. The notes are an explicit, step-by-step breakdown of human proportions, largely translated and adapted by Leonardo da Vinci from the ancient Roman architect Vitruvius with minor revisions based on comparison with actual human models that altered one or two proportions by a fraction or two based on his observations and measurements.

The text is divided into two distinct blocks, one above the drawing and one below it.

In the section above the drawing, Leonardo introduces Vitruvius and explains how ancient builders based their units of measurement directly on the human body.

- **Basic Units**: He notes that *four fingers make one palm*, *four palms make one foot*, and *six palms make one cubit* (distance from elbow to hand or shoulder).
- **Total Height**: He adds that *four cubits make a man's height* (and also equal one pace), meaning a full man is comprised of *twenty-four palms*.
- **Geometric Instructions**: Leonardo then describes how to map the body to the shapes, stating that if a person opens their legs enough to lower their height by *one-fourteenth* (7.14%) and raises their arms to the top of their head, the absolute center of their outspread limbs will be the *navel*, while the space between the legs forms a perfect *equilateral triangle*.

In the section beneath the drawing, Leonardo lists a meticulous breakdown of fractional body measurements.

- **The Main Rule**: The total span of a man's outstretched arms is exactly *equal to his height*.
- **The Face**: The face is divided into exact thirds: from the chin to the bottom of the nose, from the nose to the eyebrows, and from the eyebrows to the hairline. The total distance from the chin to the hairline is *one-tenth* (10%) *of a man's height*.
- **The Torso and Limbs**: The width of the shoulders is *one-fourth* (25%) *of a man's height*, and the genitals mark the *exact vertical midpoint of the body*.

The full text effectively serves as an artistic manual, proving that nature's design is inherently mathematical.

Because the notes describe relative fractions rather than absolute dimensions, the actual measurements depend entirely on the total height chosen for the model. Applying Da Vinci's exact fractional breakdown results in a standard "ideal" male height of five feet eleven inches (70.9 inches) or 180 centimeters.

If DaVinci were measuring an *average* Italian man from the late Fifteenth Century, the baseline height would have been closer to five feet five inches (165 centimeters). If scaled down to that historical reality, his total arm span would be the same, his face would measure 6½ inches (16½ centimeters), and his foot would be 9.3 inches (23½ centimeters).

The average man in October 1932 stood five feet eight inches (sixty-eight inches) or173 centimeters tall. Clark Gable was four inches (ten centimeters) above average height, Lester Dent was two inches (five centimeters) taller than Gable and six inches (15¼ centimeters) above average height. Doc Savage was twelve inches (thirty centimeters)

taller that average height, eight inches (twenty centimeters) taller than Gable, and six inches (15¼ centimeters) taller than Dent.

Scaling the Vitruvian Man's mathematical proportions to match a baseline height of eighty inches (200.3 cm) results in a physically imposing, symmetrical build.

Applying Da Vinci's strict fractional blueprint reveals the exact measurements for the mighty "Vitruvian Man of Bronze."

Although Doc's great strength and stamina is often described as being "Herculean" {"requiring great strength, effort, or courage"}, his *physique* is that of *Apollo*, not *Hercules*. In Greek mythology, Apollo is the god of the sun, light, music, poetry, prophecy, and rational thought. He represents the perfection of form, balance, and self-control {"*sophrosune*"}.

Hercules is the Roman name for the Greek demi-god Heracles, the son of Zeus and the mortal Alcmene, despised by Hera and protected, championed, and consistently aided by Athena. In Roman mythology, Hercules, son of Jupiter by Alcmena, despised by Juno, and aided, championed, and protected by Minerva, is famous for his superhuman strength and for his legendary labors and far-ranging adventures.

Doc Savage, the mighty Man of Bronze, is thus best described as "Apollonian" {"having the qualities of order, reason, calm rationality, structure, harmony, and individual identity"} not Herculean, although he also indeed undeniably demonstrates his great strength, effort, and courage on a daily basis.

The Doc Savage Blueprint (Scaled to Centimeters and Inches)

Body Part	Da Vinci's Fraction	Measurement (cm)	Measurement (in)
Total Height	Baseline	200.3 cm	80.0 inches (6'8")
Arm Span	1/1 of Height	200.3 cm	80.0 inches (6'8")
Shoulder Width	1/4 of Height	50.1 cm	20.0 inches
Cubits (Elbow to Fingertip)	1/4 of Height	50.1 cm	20.0 inches
Foot Length	1/7 of Height	28.6 cm	11.4 inches (Size 14EE shoe)
Full Head (Crown to Chin)	1/8 of Height	25.0 cm	10.0 inches
Face (Hairline to Chin)	1/10 of Height	20.0 cm	8.0 inches
Chest Width (Nipples to Crown)	1/4 of Height	50.1 cm	20.0 inches

At these dimensions, the figure completely leaves standard human averages behind. A twenty-inch (50.1 centimeter) shoulder width with a ten-inch (twenty-five centimeter) full head height creates the classic heroic, V-tapered silhouette heavily utilized in comic book illustration and pulp fiction covers to denote peak physical perfection and strength.

Nowadays, cubits are standardized as being eighteen inches (45¾ centimeters) are body measurements focus on the circumference of the forehead, neck, chest, waist, and hips not their width.

While Renaissance artists used perspective and shading to give the illusion of depth, they still treated their subjects as being two-dimensional like the canvas, wall, floor or other flat surface on which they applied charcoal, chalk, conté, crayon, encaustic, fresco, gouache, graphite, ink, mosaic, pastel, oil, silverpoint, tempera, watercolor, and wax to create realistic imagery using a technique now called *trompe-l'œil* {"fool the eye"} that creates a highly realistic optical illusion of three-dimensional space and objects on a two-dimensional surface.

Thirty-one-year-old retired Lieutenant Doc Savage's twenty-inch (50.1 centimeters or half meter) shoulders do not touch the thirty-six inch door jamb, but sides of his arms and hands, and spread feet fill the space in between and the top of his hatless head is only a

finger-width below the casing. If he is sufficiently backlit, he may appear in a dramatic silhouette until the interior lighting illuminated his bronze skin, hair, and his famously hypnotic gold-flecked eyes.

Based on his height and weight and length and width of chest, hands, head, feet, limbs, shoulders, and torso, Doc Savage's sartorial measurements from top to bottom would most likely be:

- **Crown**: 25 inches (63½ cm)
- **Hat Size**: U.S. Men's Size 8
- **Neck**: 18½ inches. (48.3 cm)
- **Collar Size (with ½-inch buffer)**: 19 inches (50 cm)
- **Shoulder Width (Seam to Seam)**: 21½ inches (54.6 cm)
- **Chest**: 51 inches (130 cm)
- **Jacket Length**: 35½ inches (90.2 cm)
- **Jacket Size**: 50 XL
- **Waist**: 35 inches (89 cm)
- **Hips**: 43 inches (109 cm)
- **Thigh**: 26½ inches (67.3 cm)
- **Calf**: 18½ inches (47 cm)
- **Bicep (flexed)**: 18 inches (45.7 cm)
- **Bicep (relaxed)**: 16½ inches (41.9 cm)
- **Forearm**: 15½ inches (39.4 cm)
- **Sleeve Length**: 38½ inches (97.8 cm)
- **Wrist**: 8½ inches (21.6 cm)
- **Fist (across knuckles)**: 13½ inches (34.3 cm)
- **Shoe Size**: U.S. Men's Size 14 EE

Bespoke Tailoring

To custom-tailor a suit for Doc Savage's unique six foot eight inch, two hundred seventy pound Apollonian (not Herculean) frame, an off-the-rack garment is entirely out of the question. Because he possesses the skeletal height of an elite basketball player paired with the lean, hyper-dense torso of an Olympic decathlete, a standard suit would look cartoonishly baggy and loose in one area and dangerously tight in another.

To accommodate his twenty-inch skeletal shoulder width, ultra-deep fifty-one-inch chest, razor-sharp thirty-four-inch waist, and long athletic limbs, he requires exact tailored suit dimensions.

- **Collar Size**: Doc's collar requires a comfortable ½-inch buffer so he can fully breathe, speak, and move dynamically without the collar choking him.
- **Jacket Length**: Measured from the base of the collar to the bottom hem, ensuring the jacket properly cover his glutes while maintaining the classic, elongated line of a Thirties gentleman.
- **Jacket Size**: A standard 50XL jacket expects a matching waist size of about forty-four inches. For Doc, the jacket must feature a drastic sixteen-inch drop down to his thirty-four-inch waist. This requires aggressive bespoke darting along the spine and ribs to keep the fabric flush against his lean torso without bunching.
- **Shirt Sleeve**: Tailored with a wide cuff to easily clear his dense, 8½-inch wrists and accommodate any custom utility gear or timepieces he might wear.
- **Shoulder Seams**: This leaves just enough breathing room over his natural twenty-inch skeletal frame. The jacket would require *zero shoulder padding* to prevent him from looking unnaturally blocky or bodybuilder-like; his natural musculature provides all the structure needed.
- **Sleeve Length**: Measured from the center back of the neck, across the shoulder, and down to the wrist bone. His long, graceful gymnast arms require an exceptional length.
- **Trouser Waist**: Tailored slightly larger than his true thirty-four-inch bare waist to allow for complete, uninhibited freedom of movement, deep crouching, and high-kicking without splitting the fabric.
- **Trouser Seat / Hips**: Specially cut with extra room in the rise and seat to accommodate his powerful, athletic gluteal development without pulling at the pockets.

- **Trouser Inseam (Leg Length)**: Measured from the crotch to the ankle bone. Given his six foot eight inch height, his legs are incredibly long.
- **Thigh Width (Flat Measure)**: Provides a two-inch allowance over his 26½-inch athletic thighs, ensuring the fabric drapes elegantly like a Thirties classic drape.

The Sartorial Illusion

When standing completely relaxed, this custom-engineered suit would make Doc look like an elegantly dressed, remarkably tall, and refined gentleman. The fluid drape of the fabric would entirely mask the “bundles of piano wire” underneath. Only when he raises his arms or flexes to strike will the fabric instantly strain against the sudden, violent expansion of his dense, bronze muscles and famously rip open his shirt sleeve.

On the covers, he typically forgoes the jacket, tie, and even his multi-pocketed gadget-filled vest in favor of a white shirt with the collar open and the sleeves rolled up over his biceps. His vest is worn under his shirt like an athletic undershirt (A-shirt, now called a “wifebeater”) accessed by reaching between the shirt buttons or open collar.

Men’s Fashion in the Thirties by Year

Men’s fashion from 1932 to 1940 transitioned from the relaxed, lingering Jazz Age influences of the early Thirties into the heavily structured, broad-shouldered "drape cut" of the mid-decade, before shifting toward sharper, utility-driven, and rationed silhouettes as the Second World War approached.

1932

- **Silhouette**: Retained a slender, elongated line carrying over from the late Twenties.
- **Suits and Jackets**: High-waisted coats with moderate shoulders; both single-breasted and double-breasted styles coexisted. Evening tailcoats featured a high waistline and growing chest fullness (drape) inspired by British tailoring.
- **Shirts and Details**: Soft, attached spearpoint collars replaced stiff detachable collars; thin vertical stripes, dot patterns, and cotton broadcloth dominated.
- **Sport and Casual**: Shorts and high-waisted pleated trousers gained mainstream ground via tennis and resort wear.

1933

- **Silhouette**: The broader, more athletic V-shape began taking hold.

- **Shirts and Fabrics**: Solid-color cotton broadcloth shirts, drop-stitching, and breathable open-weave fabrics (like "crinkle cotton" and tropical oxford) grew popular for hot-weather comfort.
- **Suits**: Darker conservative colors (navy, charcoal, brown) for business, paired with bold geometric or striped ties that sat shorter ending just above the waistband.

1934

- **Silhouette**: Shoulders broadened further, and trousers remained wide-legged with deep front pleats.
- **Suits and Coats**: The “drape cut”—pioneered by London tailors (notably for the forty-year-old Edward the Eighth, Prince of Wales)—introduced extra fabric and fullness across the chest and shoulder blades to build an imposing masculine frame.
- **Workwear and Casual**: Hickory-striped and blue denim overalls, plus heavy canvas coveralls, were standard working-class staples.

1935

- **Silhouette**: Sculpted, authoritative, with a heavily nipped waist and wide peak or notched lapels.
- **Evening Wear**: The golden age of black tie was in full swing; midnight-blue dinner jackets, turndown collars, and backless waistcoats saw widespread adoption. White dinner jackets emerged for warm-weather and resort formal wear.
- **Hats**: Snap-brim fedoras and formal Homburgs ruled urban headwear.

1936

- **Silhouette**: Considered a peak year for sculpted mid-Thirties elegance. The London-exported drape cut dominated.
- **Key Trends**: Navy chalk-stripe suits paired with mid-brown shoes, Lovat green Glen Urquhart checks with rusty over plaids, and the introduction of the sporty pork pie hat at ballgames and racetracks.
- **Casual Wear**: Polo shirts, knitted sport shirts, and patterned sport coats transitioned from athletic fields into weekend leisure wear.

1937

- **Silhouette**: Broad-shouldered, sharp, and sharply tailored three-piece suits remained the everyday standard for working professionals.
- **Fabrics and Patterns**: Heavy textured tweeds, flannels, and herringbone patterns stayed popular for autumn/winter, while lightweight open-weave worsteds and silk-stripe shirts gained ground.

1938

- **Silhouette**: Still broad and structured, though subtle shifts toward cleaner lines began.
- **Shirts and Materials**: Sponge crepe shirts in deep color tones and tropical open-weave fabrics became major trends.
- **Trousers**: High-waisted, full-cut trousers with deep cuffs around twenty to twenty-two inches (50.8 to 55.9 centimeters) and button or Hollywood waistbands.

1939

- **Silhouette**: Transitioning away from extreme swagger toward slightly sharper, more restrained proportions as the shadow of war loomed.
- **Details**: Wider lapels, low gorges, and multi-color check or small-figure patterned shirts.
- **Outerwear**: Trench coats, raglan coats, and guard's coats served dual practical and stylish roles.

1940

- **Silhouette**: War rationing and material conservation began to strip away excess fabric.
- **Tailoring Changes**: Double-breasted suits lost ground to single-breasted jackets, and the traditional there-piece vest/waistcoat was increasingly discarded as an unnecessary luxury.
- **Pants and Hems**: Trousers began losing exaggerated width and deep turn-ups/cuffs as government restrictions on cloth took effect in Britain and Europe, laying the groundwork for the leaner Forties wartime silhouette.

Doc Savage's Five-Man "Brain Trust" of "Scrappy Pals"

- Forty-four-year-old aviation, civil, construction, and nautical engineer John "Renny" Renwick is six feet four inches (193 centimeters) and two hundred fifty pounds (114 kilos) ["an eighth of a ton"], "an elephant of a man" with fists the size of "gallon milk bottles," "gallon pails," or "buckets of gristle and bone" (later reduced to "quart jugs"). In Doc's absence is the nominal second-in-command. His feet are "big" (given his height and weight, most likely U.S. 13½ EE) and he wears "laced shoes" that "always look as his feet were stuffed in them." His voice is "roaring, the kind of a voice one always imagines expressing Puritanical disapproval." He looks his saddest when he is happiest and *vice versa*. When he smiles or worse grins, he is agitated, anxious, desperate, frantic, hopeless, impatient, or worried. When he looks bleak, foreboding, frowning, gloomy, grim, scowling, sorrowful, sulking, or woebegone, he is as happy as a clam.

- Forty-three-year-old Harvard "white-shoe" lawyer retired Brigadier General Theodore Marley "Ham" Brooks is five foot ten inches (153 centimeters) and one-hundred fifty-five pound (seventy kilos), "slender, waspy, quick-moving, and quick-witted" with white-hair and deep-set black eyes wears the latest Hollywood trend on and off screen set by "fashion plate" movie stars Fred Astaire, Gary Cooper, Clark Gable, and Cary Grant, working hand-in-hand with iconic studio costume designers like Adrian Adolph Greenburg (known professionally first as "Gilbert Adrian" and then the mononym "Adrian"), Travis Banton, and Orry George Kelly (known professionally as "Orry–Kelly") who popularized stylistic choices that permanently transformed on-screen glamour into off-screen street trends. Ham would likely look like Clark Gable than Doc Savage ever would.

- Forty-four-year-old University Natural Science Research Department Professor Emeritus William Harper "Johnny" Littlejohn is six feet even (183 centimeters) and one hundred fifty pounds (sixty-eight kilos) due to his dense skeletal frame with the wiry build of "marathon runner, for endurance, bones and tendons" so it shows through the epidermis making him look like an emaciated "bag of bones" memorably described as "two men high and half a man wide" and "He is so bony that he looks like an advance agent for famine." Johnny is the world's foremost archeologist, ethnologist, geologist, and linguist. His "gaunt look" as a "half-starved, studious scientist" is offset by an optimistic positiveness and the soft-spoken but authoritative academic manner of a college lecturer.

- Forty-three-year-old commercial and industrial chemist retired Lieutenant Colonel Andrew Blodgett "Monk" Mayfair is five foot five inches (165 centimeters) and two

hundred-sixty pounds (118 kilos), “shoulders slipping, nearly as thick as they are wide,” with red hair “like rusty nails” and blue eyes “surrounded by gristle until they were like stars twinkling in little pits.” Monk would have been six foot six inches (198 centimeters) were it not for his bandy, bowed, short legs caused by childhood rickets that softened, weakened, and bent them during his formative years but not cripple him as an adult. From the waist up, he is as massive as Renny, but from the waist down he still has the stature of a child and a squeaky high-pitched voice to match unless he gets agonized, angry, excited, or outraged and then bellows like a howler monkey. The combination of long arms attached to broad shoulder and a massive chest causes them to reach below his bent and bowed knees and make him look like a gorilla. He wears extra-large men’s wear above the waist and extra-small men’s or regular boy’s wear below it. His feet are big enough that he likes to takes shoes off, reinforcing the gorilla resemblance. He is memorably described as “one man high and two men wide” and compared to the man is the hit song “Mr. Five by Five” (20 Jul 1942).

- Forty-two-year-old electrical and electronic engineer retired Major Thomas Jefferson “Long Tom” Roberts is five feet four inches (164½ centimeters) and one hundred forty pounds (63½ kilos), “undersized, slender, only fairly set up, with a none too healthy complexion, pale hair, and blue eyes. He is a Nordic type.” His build is “thin, even though he is not tall. An enormous head” compared to “A Steinmetz forehead, the head of wizard” who “worked with Steinmetz before his death and with Edison” with stooped shoulders. His hair is “pale, fair, without much healthy color, but lots of it” and often compared to straw. His ears are “too big and too thin. You can see through them when they are between you and the light.” When he fights, he goes berserk, turning from a pussycat into a wildcat that does not know when to quit. He is notably quiet albeit often sarcastic, speaking in a genteel, polite, slow southern drawl (not a twang). “He seems to get quieter and his mouth stops moving and his eyes glitter when he is getting near one his bursts of passion. Then, without warning, he lets loose, and ‘look out!’” He has a visible gold tooth (later two) that can get knocked loose or out in a fight. “When it does, Long Tom flies into a rage, and carries the tooth around with him, only putting it back when he gets satisfaction from the man who knocked it out!”

Patricia “Pat” Savage, Distaff Doc Deputy

Introduced in Issue 11 “Brand of the Werewolf” (Jan 1934), Doc’s “about eighteen” year-old first cousin Patricia Savage is five foot seven (170 centimeters) and one hundred twenty-five pounds (56 ⅔ kilos).

She did not become “Pat” Savage until she moved from her father Alex Savage’s hunting lodge on Vancouver Island and moved to Manhattan in Issue # “Fear Cay” (Sep 1934) to get on Doc’s adventurous lifestyle.

Initially, Dent intended for her to open a private detective agency trading on the Savage name, but the editors nixed that, nicknaming her “Tarzana” and complaining about her unfeminine “tomboy” persona.

So, Dent made Pat Savage the owner and proprietress of a "Park Avenue “beauty salon” catering the wealthy Manhattan upper classes, but descriptions of “Patricia’s” (later “Patricia, Inc.”) in the various novels texts show it to be more of what is now called a “health and fitness center” with a beauty salon; every imaginable exercise machine; handball and squash courts; Japanese *ofuro* baths [now “hot tubs” and Jacuzzis] attended by local Japanese American “*geishas*” hep to current jive and slang when out of uniform; indoor pools; saunas; spas; sunlamps designed by Long Tom [now tanning beds]; a tennis court; tracks for leisure, brisk, and speed walking, jogging, running; and offering lessons in ballet *barre*, calisthenics, contortion, fencing, dance, grace, gymnastics, *jujitsu*, manners and etiquette, poise, self-defense, stretching, tailored gym workouts, weight training, and yoga.

(For what it may be worth, in my Doc Savage pastiche *The Daredevil Exploits of Dare Devlin, Supreme Adventurer* Devlin’s cousin Catalyn Bodocea “Cat” Devlin calls her establishment the “Cat’s Meow® Health, Strength, and Beauty Academy.”)

Alas, DaVinci never drew and annotated a “Vitruvian Woman” with an “ideal” height, presumably below that of the Vitruvian Man in 1490 approximated the average height of the average man in 1932, of which Pat’s given height is just an inch (2.54 centimeters) shy.

But downsizing the Vitruvian Man to Pat’s height and dimensions the way upsizing the Vitruvian Man to Doc’s height and dimensions to create a “Vitruvian Man of Bronze” will not create a distaff “Vitruvian Woman of Bronze” due to hormonal differences, variant body composition, and biological size dimorphism between the sexes.

Adult men are typically taller than adult women, with a general average difference of about five inches (12.7 centimeters) in the U.S. population but varying between five to six inches (thirteen to fifteen centimeters) globally due to hormonal and genetic factors like testosterone and the “Short-stature Homeobox-containing Gene” (SHOX).

Adult men weigh more on average than women, corresponding with larger average skeletal structures and body volume.

For any given height, women generally weigh about 9% less than men in gross size, though men naturally possess a higher proportion of muscle mass and bone density, while women typically have a higher baseline percentage of body fat.

Research tracking global trends shows that men's height and weight tend to respond and scale more prominently with improvements in nutrition, wealth, and living conditions than women's.

I have also never given any real consideration to age group or Body Mass Index (B.M.I.) categories, just human geometric, mathematical, and physical proportionality and, frankly, I do not yet know how to do it or if it is even feasible, let alone if it is possible and practical.

If and when I do, then will I attempt to write a matching *The Vitruvian Woman of Bronze*.

—end—