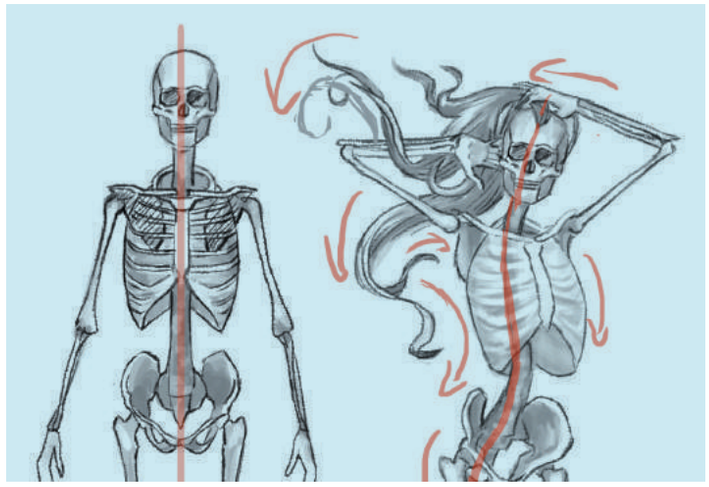
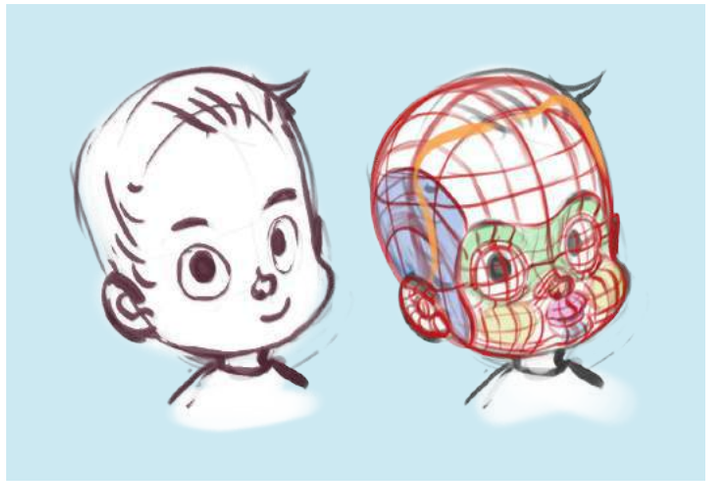
ANATOMY FOR CHARACTER DESIGN





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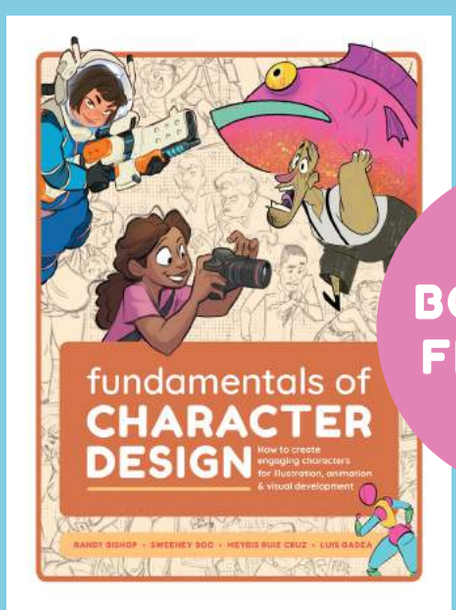

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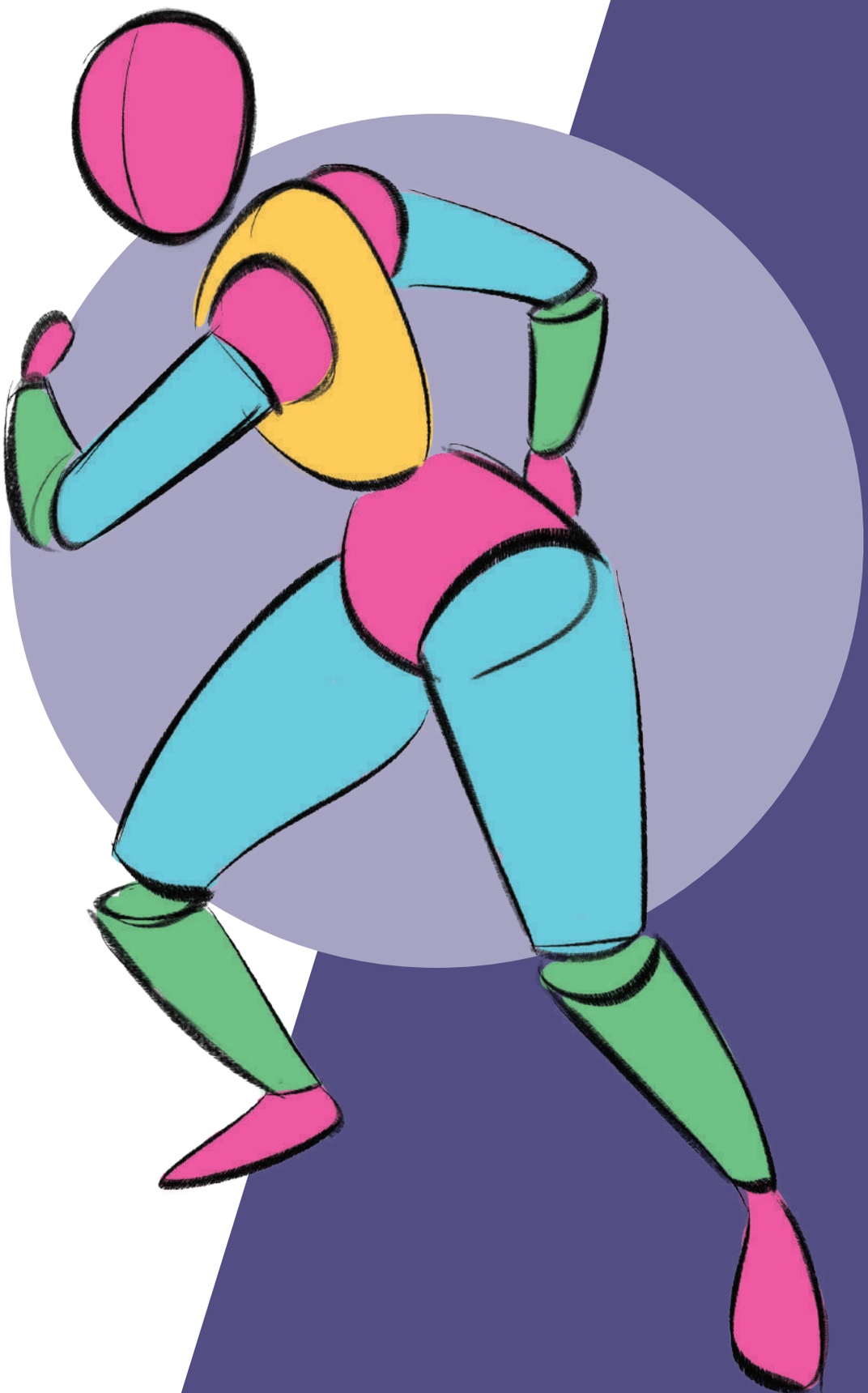


Image by Kenneth Anderson

FIGURE BASICS

ANATOMY OVERVIEW

CONSTRUCTION & BASIC SHAPES

DIFFERENT BODY TYPES

EXAGGERATION OF FORM

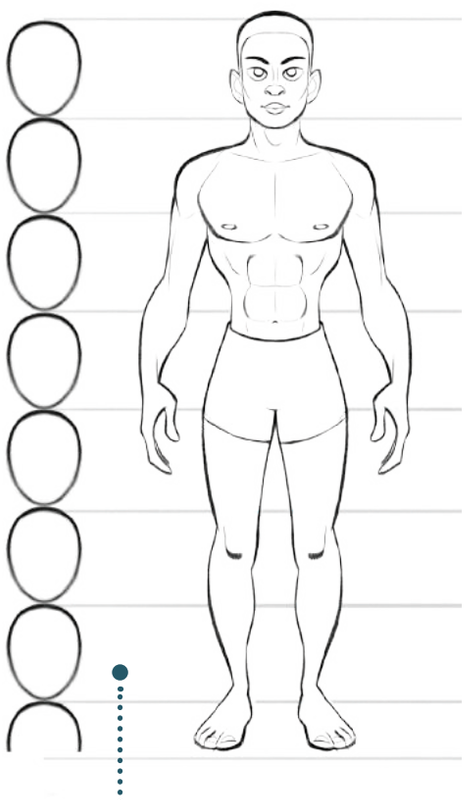
ANATOMY OVERVIEW

Kenneth Anderson

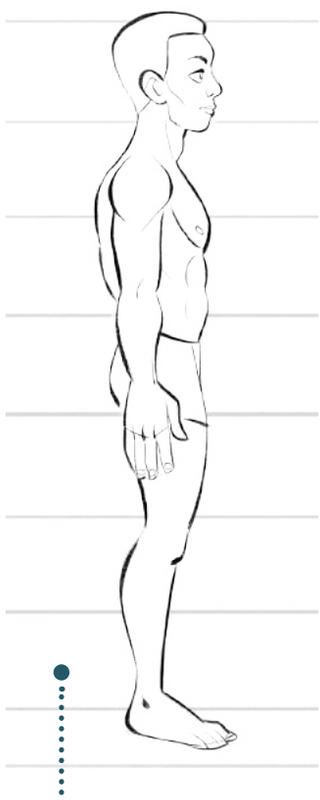
Human anatomy is one of the fundamental building blocks of all character design, with human characters being abundant in cartoons, games, illustrated books, and comics. Even when designing animal characters, there is a good chance they will be anthropomorphized or take some cues from human anatomy. Why is this? As human beings, we relate best to characters that also appear human or can express themselves in a human-like manner. Therefore, designing characters would prove difficult without a strong knowledge of human anatomy.

Every human body is different and there is no universal rule that applies to one and all, yet that has not stopped people idealizing the human form throughout history. The Ancient Egyptians used standardized proportions of eighteen fists, from a figure's hairline to the bottom of their feet, in their depictions of people. Polykleitos' *Doryphoros* sculpture is an example of Ancient Greek idealized human proportions from the high Classical period, the sculpture's head being a ratio of 1:7 to the body. Leonardo da Vinci's *Vitruvian Man* presents a later idealized form, showcasing da Vinci's belief in the mathematical nature of human proportion. In more modern examples, the anatomist and artist Paul Richer suggested an average height of seven and a half heads for an adult, while the artists Andrew Loomis and George Bridgman suggested eight.

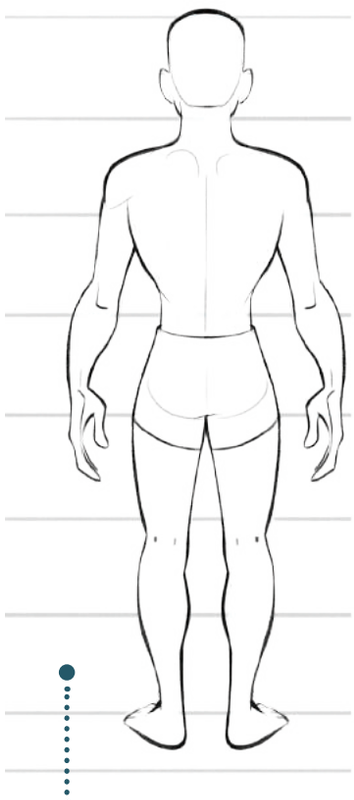
Keep in mind that these ideals are based on particular cultures from distinct periods in history. In truth, there are a range of head-to-body ratios that look and feel right for realistic human anatomy. As a character designer, you can play with these ideas without feeling bound by them – use them as guides and not laws. The key is to think in terms of the size of the head in proportion to the rest of the figure, knowing that natural human proportions will fit, on average, into a particular range. This chapter will show you some simple foundations of human anatomy and how it is applied to character design.



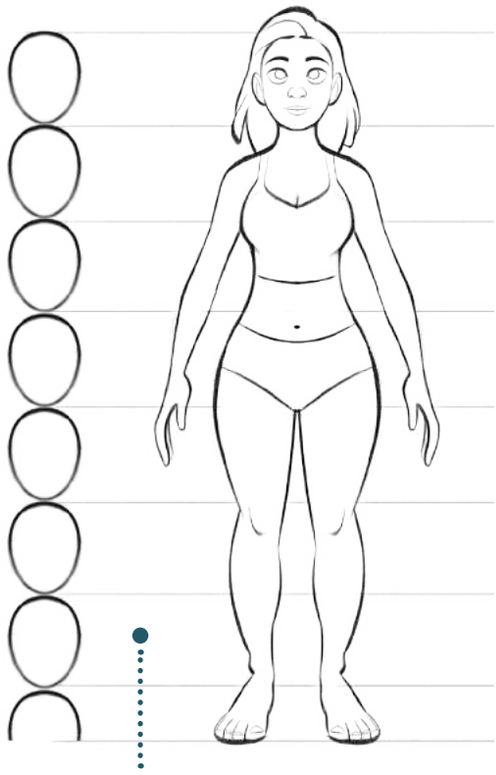
This "archetypal" male has a height of seven and a half heads. Note his wider shoulder-to-hip ratio compared to the female figure.



When turning a character in space, keeping the established head-to-body ratio in mind can help maintain consistency.

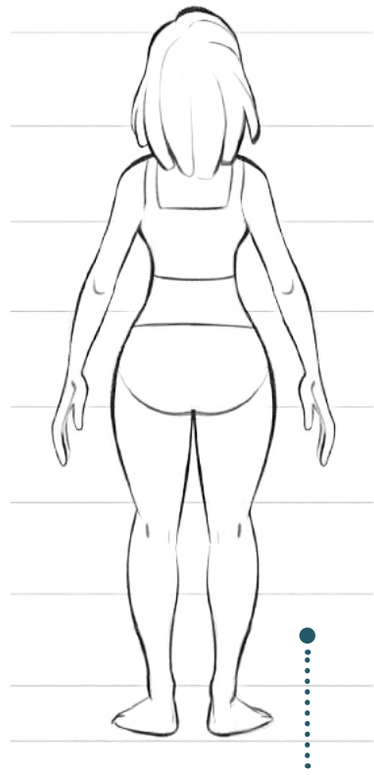


The width of the latissimus dorsi (the large wing-shaped muscles on the back) is pronounced here and adds to the width of the shoulders.



This “archetypal” female is also seven and a half heads in height. Note how the heads are slightly smaller than the male heads to account for average size differences between the male and female body.

With a side view, the differences in archetypal male and female anatomy become more apparent.



While there are differences in male and female anatomy, it is clear there are also major similarities.

Human variables

What other variables can come into play? A good rule to remember is that the younger the character, the fewer “head-heights” they will have. This is because as people grow, the size of the body increases in relation to the head. Besides the obvious anatomical differences, a male body will generally tend toward more muscle mass, while a female body will likely have a higher natural fat percentage.

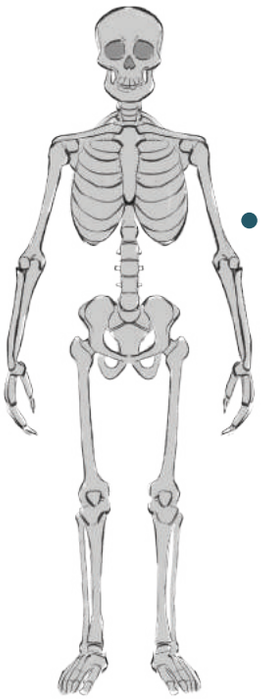
Hip-to-shoulder ratio is another key factor to keep in mind, with men tending toward broad shoulders and thinner hips, and women tending toward wider hips and thinner shoulders. It is also true that, on average, men are taller than women. And don’t forget that some people do not fall into the typical categories – those with restricted growth, for example, will be shorter and differently proportioned.

Bone, muscle & fat

Human anatomy is complex, so it can be helpful to simplify the figure by thinking about it in three parts. First, the skeleton, which gives the body structure. Second, the muscles, which allow the body to move as well as change its shape. And finally, body fat, which serves its own purpose but also alters the shape of the body, depending on the amount and distribution.

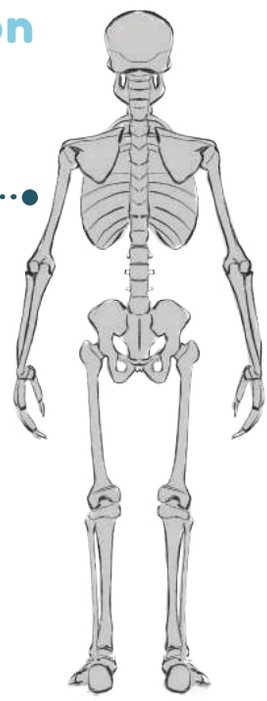
As a rule, bones do not bend or squash, while muscles can stretch and bulge depending on whether they are flexed or not, and fat can only respond to the actions of the skeleton and muscles underneath it. Key anatomical landmarks such as the elbows, knees, rib cage, and spine can all help, alongside the major muscle groups, in defining the overall shape of a character.

The skeleton



The human skeleton is very complex. It's a good idea to copy it from reference as practice.

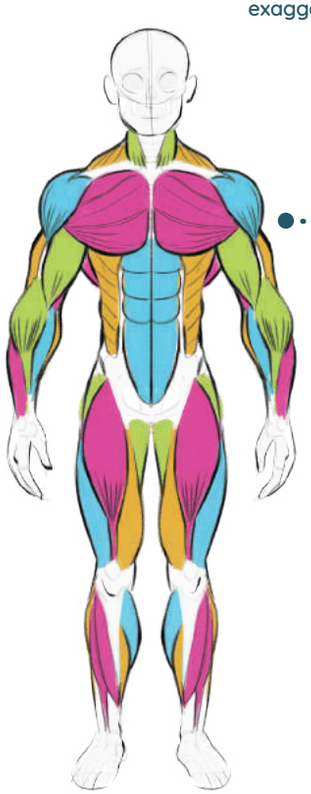
Note how the skeleton forms the foundation of the structure of the human body.



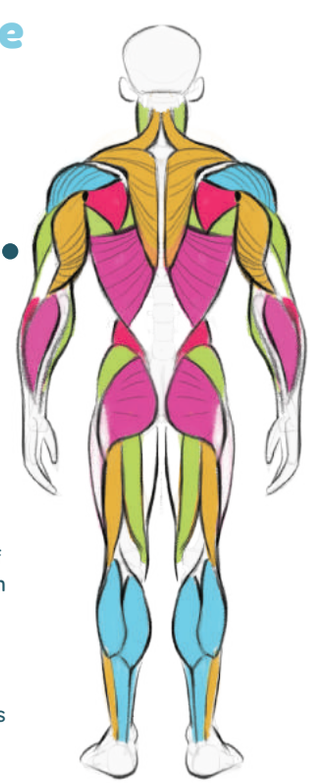
Look at key points on the skeleton, such as the spine and rib cage. Some of these areas are still noticeable even when overlaid with muscles and skin.

Muscle structure

Just like the skeleton, the muscles in the body are complex. Try breaking them down into larger overall masses. They are exaggerated here for clarity.

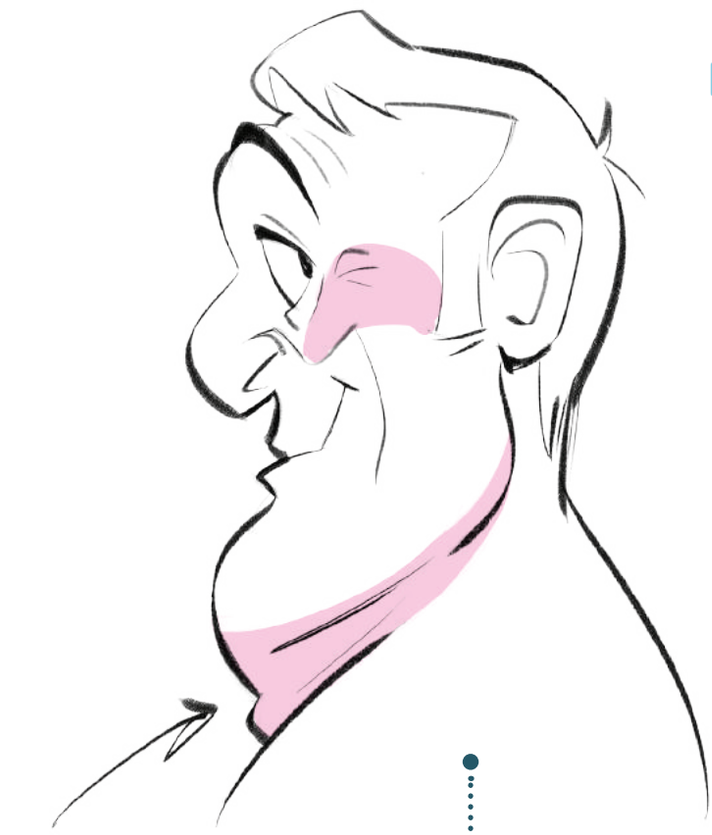


The effect the muscles have in altering the shape of the body is most apparent from the side view. Note how they create the feeling of "straights versus curves" (see more on page 70) in the legs and arms.



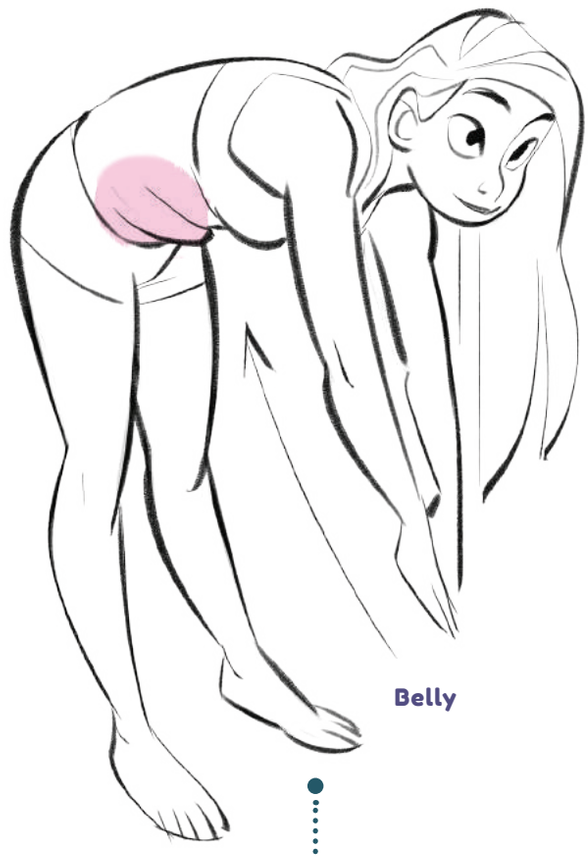
Notice the complexity of the back muscles, even in this simplified diagram. A good understanding of what's happening underneath the skin will really help when it comes to stylizing a character.

Body fat



Under chin

Underlying fat deposits can change the shape of a character. Here they affect the area of the chin and neck.



Belly

Even a little bit of body fat can affect shape, especially when it reacts to the movement of the body.

USE REFERENCE

Reference is essential when designing realistic characters with accurate anatomy. The human body is so complex, it can be difficult to memorize all the details. Over time and with lots of practice, knowledge of anatomy will become second nature, and the need for reference will become less as you shift your reference from the real world to your memory. But it's always good to refer back to reference to refresh and fix bad drawing habits!

Remember, there is no shame in using reference. In fact, it should be encouraged, particularly if you find yourself stuck with a particular point of weakness in your abilities. Reference can be particularly useful for the more intricate parts of a character, such as the hands, feet, and face. Style will influence your interpretation of anatomy – the more cartoon-like you go, the less realism you need to worry about. That said, even the most stylized, rubber-hose-armed character must adhere to some rules to look human!

The best references are anatomy books, photographs, observation, life drawing, and a good mirror! But do not rely on your own body for reference too much – expand your reference pool for a wide variety of human anatomy.

CONSTRUCTION & BASIC SHAPES

Kenneth Anderson

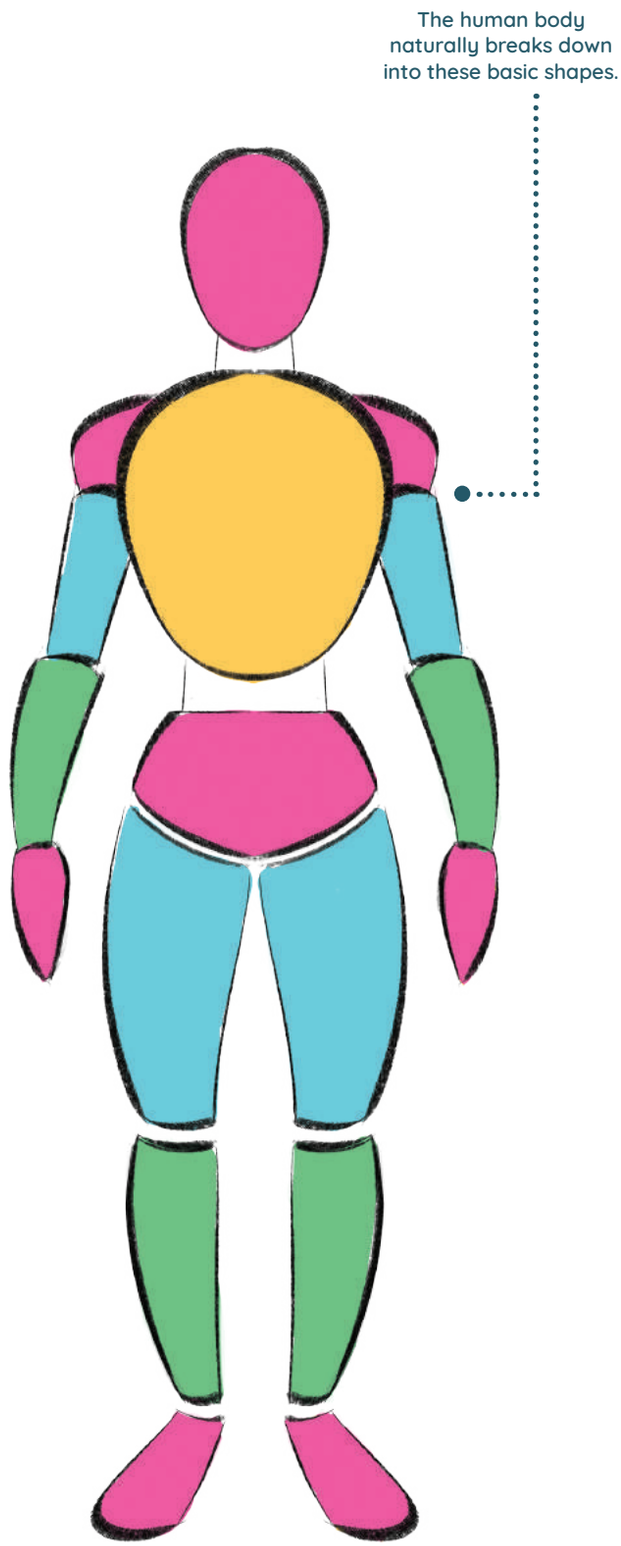
The human figure is complex, and distilling it into a strong character design is no easy task – especially when you want to stylize the anatomy in the process. This is why knowledge of anatomy is essential to a character designer – trying to learn anatomy while simultaneously stylizing it will not yield good results. It's hard to stylize something without fully understanding it first.

Thankfully there are tried-and-tested methods to make the process easier. It helps to break the figure down into basic simple shapes first to create a foundation upon which to draw. With any design process, a "general to specific" approach works best: going from the macro "big picture" to the micro "small picture." Getting bogged down in anatomy details before establishing a strong foundation of gesture, pose, and underlying body mass can be very counter-productive.

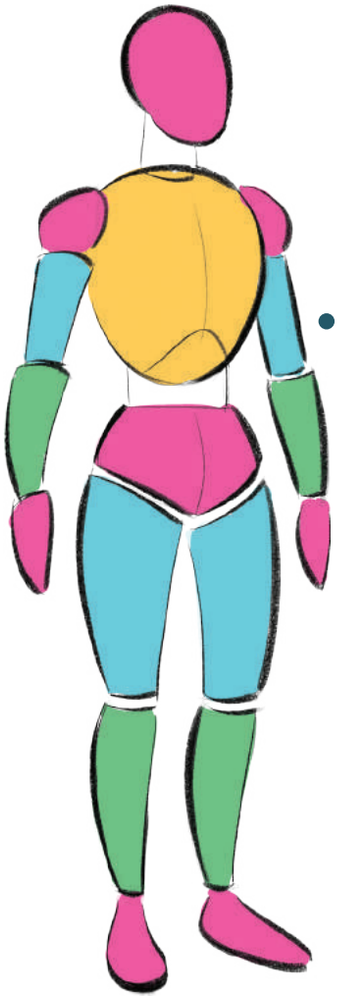
Looking at the human figure, it naturally breaks down into simpler masses: the head, chest, pelvis, shoulders, arms, and legs. The arms and legs can be broken down further still, into upper and lower limbs, plus the hands and feet. Playing with the proportions and shapes of these main elements can easily create a variety of different character body types without worrying about the complexities of anatomical details. Just remember the overall big picture first!

Breaking up the body also allows you to experiment with one of the fundamentals of good design: contrast. What happens if you make the chest small and the legs really long? Or sketch a large body and small legs? Avoid pushing too far, though. Imagine a character with a tiny body and a head three times the size. It may have good size contrast, but does it work as a human character? Does it feel right? It might work in very particular design scenarios, but probably not in most cases. This is why a good knowledge of anatomy and a general understanding of human proportion is essential – it helps you to recognize when you have pushed a character beyond its breaking point.

You can also use curves, angles, and straight lines to your advantage. Combining these can create volume and rhythm in anatomy, and can simulate the natural "straight versus curved" shapes found throughout the human body and in nature. You are no longer simply experimenting with the proportion of body parts, but building on a strong foundation, using shape and design language to push anatomy further toward visual appeal.

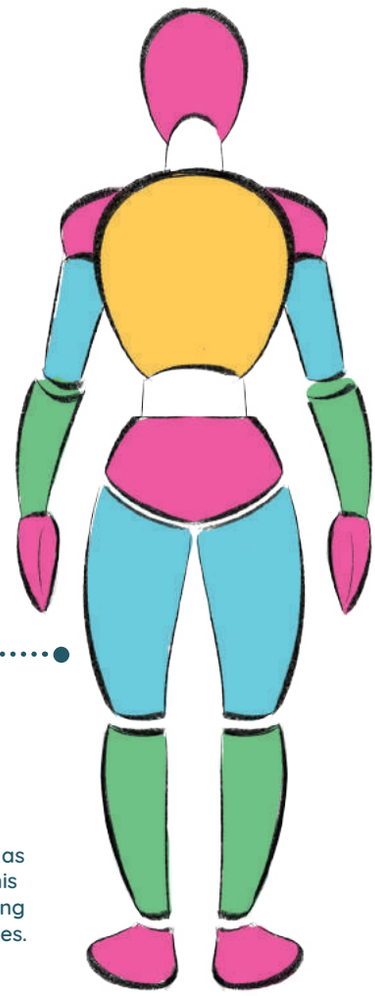


Simplified male figures



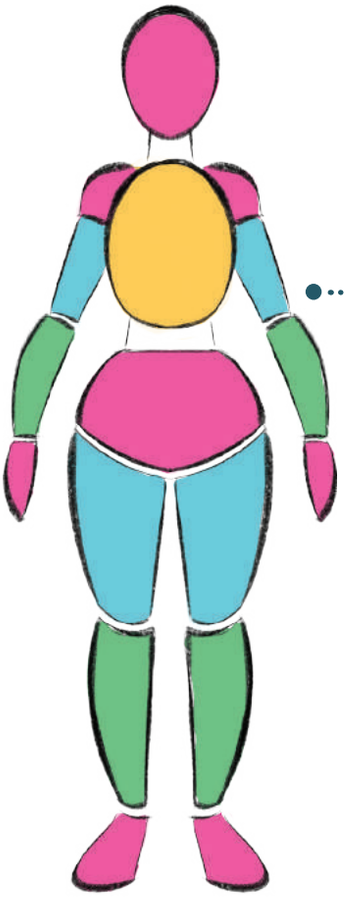
Simplifying a character like this can help you turn complex anatomy in space, especially in three-quarter views.

Note how the basic shapes simplify the complexity of the anatomy, made up of the skeleton, muscles, and fat.



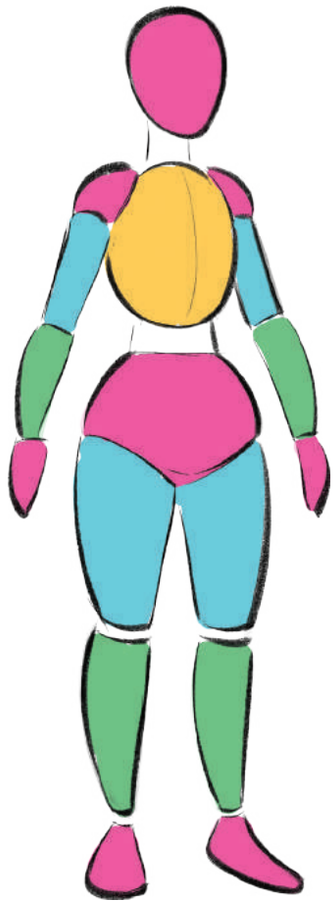
Think of these shapes as three-dimensional. This will help when visualizing anatomy from all angles.

Simplified female figures

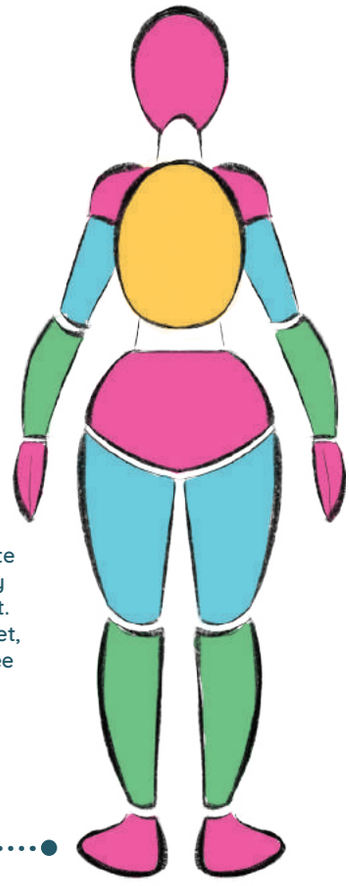


In general, the basic shapes that make up female anatomy will differ in proportion to those of a male, though they are essentially the same.

When breaking a character down like this, don't become too distracted by details such as the shape of the female chest. That can easily be drawn on top afterward.

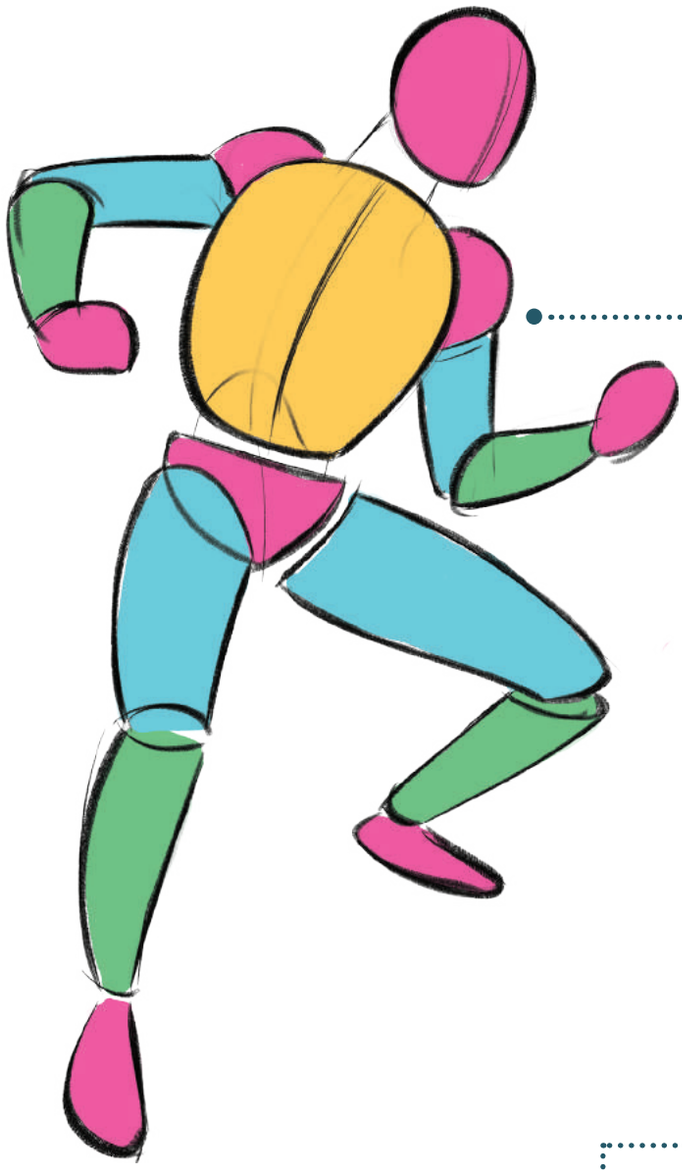


See how these shapes turn slightly differently from the male character, mainly in the chest and hips, which are more rounded here.



The shapes and silhouette from the back generally mirror those of the front. The exception is in the feet, where you can clearly see the angles of the heels.

Simplified figures in action



Using these basic shapes can help when constructing a character in an action pose. The simplicity allows you to focus on the movement and gesture.

Using basic shapes also helps when drawing foreshortening in the anatomy. Think of the basic shapes as tubes, spheres, and boxes.

DIFFERENT BODY TYPES

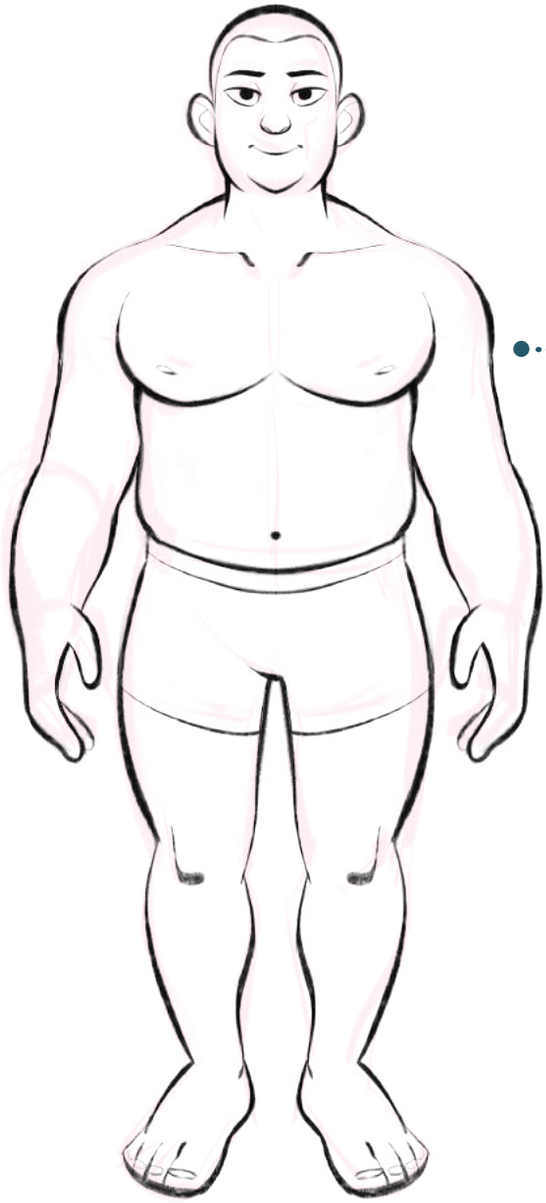
Kenneth Anderson

Human bodies come in all shapes and sizes. Take a look at people in the street and you will see a variety of different body types – this is great reference for character designers! There are many reasons why you might want to experiment with character body types and push them in all directions. It may suit a particular story or character, for example. The main reason, however, is visual interest: contrast is what makes things interesting. If you only draw classical or archetypal body types, all your characters will look the same and will soon become boring.

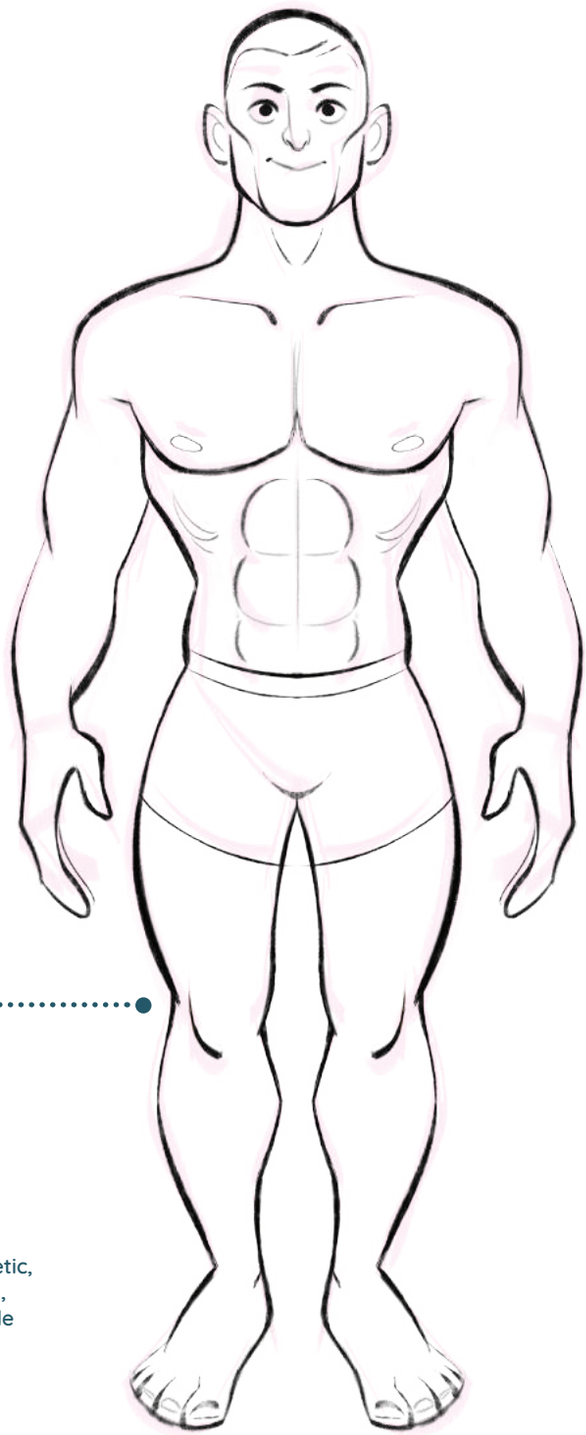
You can also borrow ideas from elsewhere to expand the way you think about body types. A common (though controversial) concept, often discussed in the world of bodybuilding, is that of "somatotypes" – generalized body types that have a certain set of characteristics. These are: the ectomorph, characterized by their tall height, long and thin limbs, low body fat level, and thinner shoulders; the mesomorph, with broad shoulders, a larger chest, more muscle mass, and low body fat; and the endomorph, characterized by larger limbs, a wider waist, high muscle mass, but also more body fat.

While these categories might be questionable from a scientific point of view, they can be useful for character designers as a way to think about different body types when drawing. The key thing to take away from this are the three fundamental factors that dictate how the human body looks: the length, thickness, and proportions of the skeleton; the size of the muscles; and the amount of overall body fat. Considering these three elements, you can create almost any human body type imaginable.

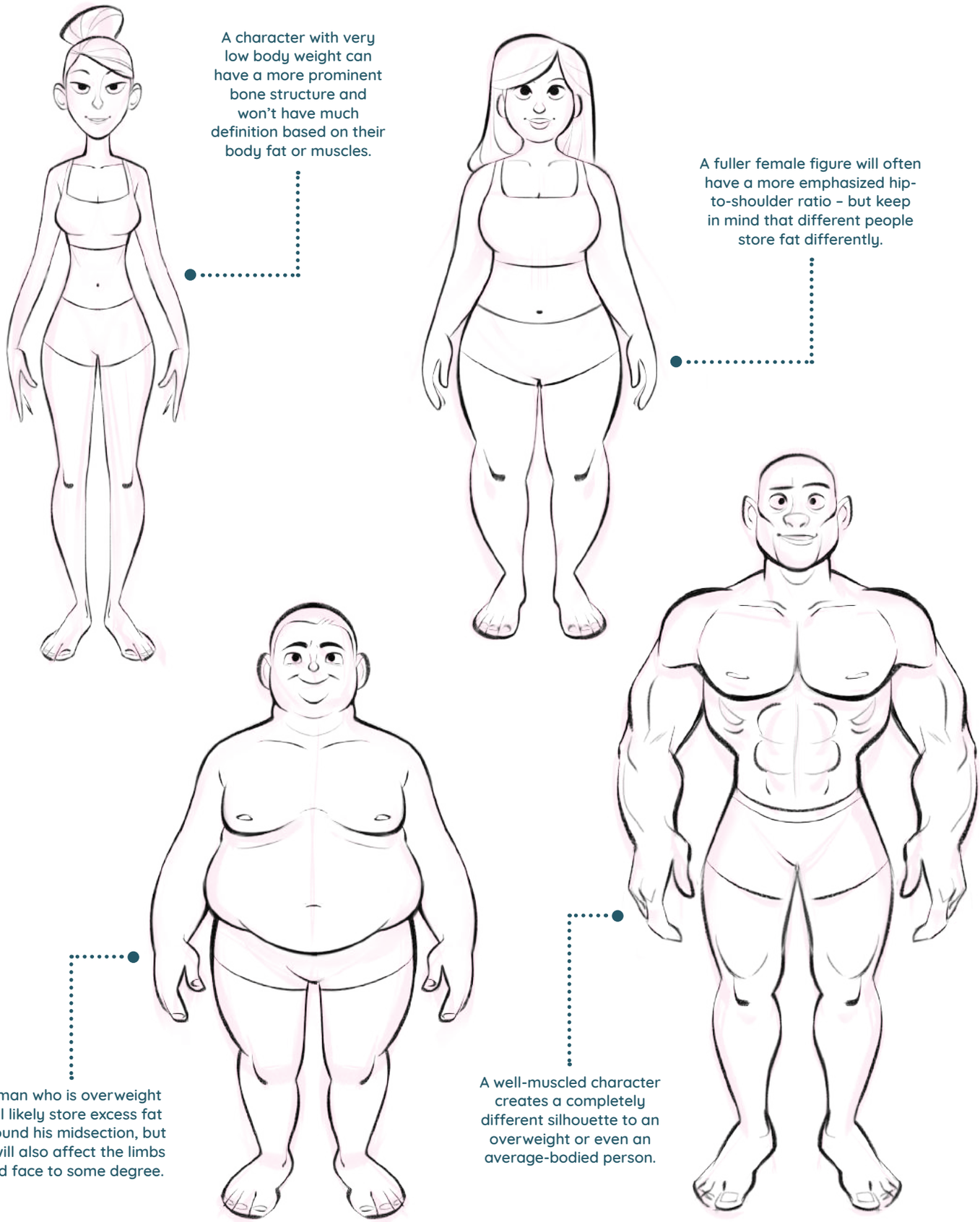
The **ectomorph** is the stereotypical skinny character, with low fat, lean muscles, and small joints.

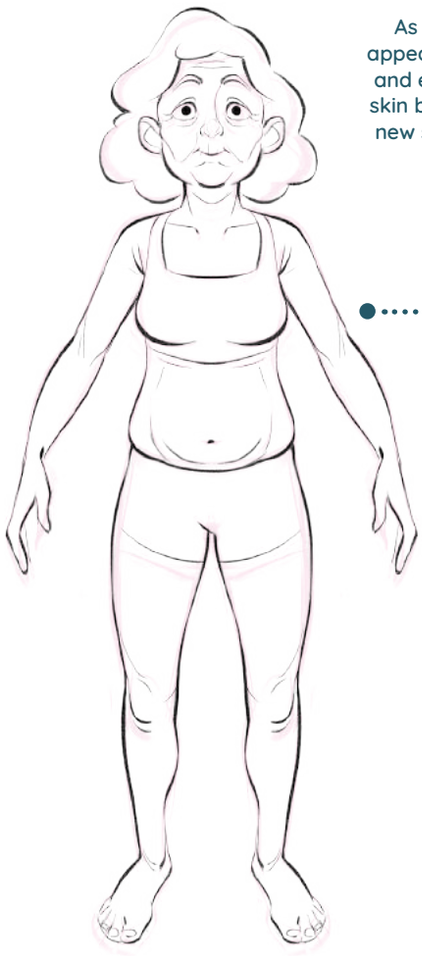


Generally shorter than the other types, the **endomorph** can be muscular but tends toward storing body fat, giving them a rounder, softer body type.



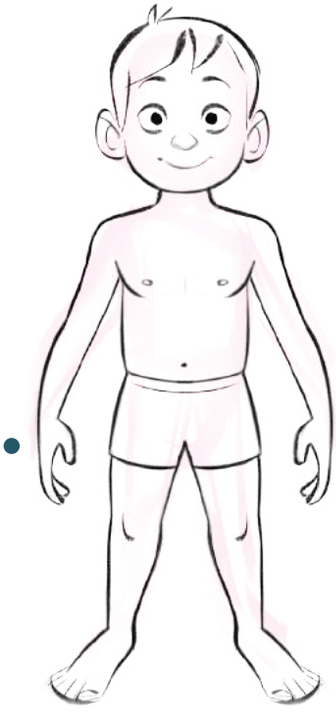
The **mesomorph** is athletic, well-muscled, and lean, with the archetypal male shoulder-to-hip ratio.


A character with very low body weight can have a more prominent bone structure and won't have much definition based on their body fat or muscles.
A fuller female figure will often have a more emphasized hip-to-shoulder ratio – but keep in mind that different people store fat differently.
A man who is overweight will likely store excess fat around his midsection, but it will also affect the limbs and face to some degree.
A well-muscled character creates a completely different silhouette to an overweight or even an average-bodied person.



As people age they tend to appear shorter, though the nose and ears continue to grow. The skin becomes less taut, creating new shapes. Learn more about age on page 190.

A typical teen often looks like they don't quite fit in their body yet. Their head-heights are somewhere between those of a typical child and an adult.



A child will have a lower head-to-body ratio. Note the head size feels a bit larger in comparison to the body.

EXAGGERATION OF FORM

Kenneth Anderson

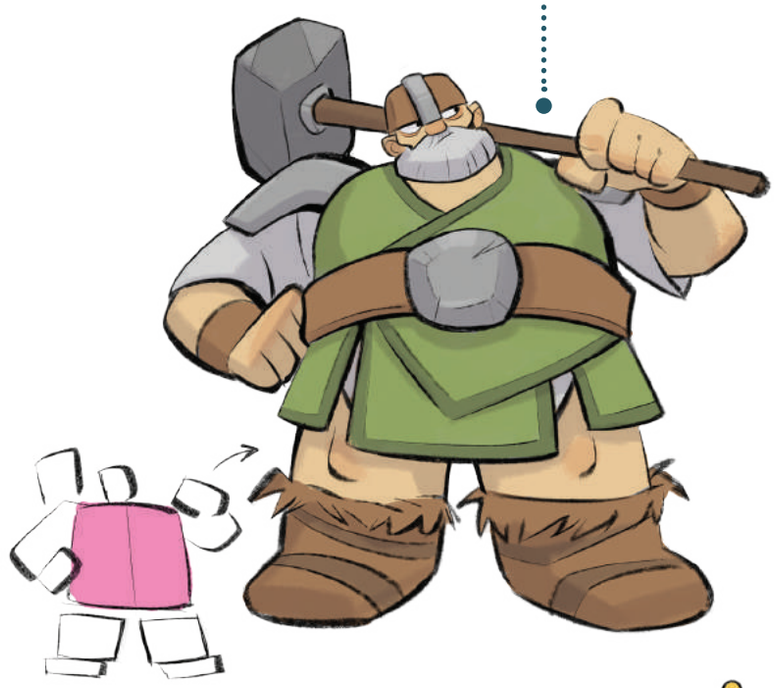
As a character designer, you have the power to make design choices that make statements and convey ideas. One way to do this is through exaggeration and contrast. Depending on the style, which will set the limits of design, exaggerating design choices can create a visually interesting character. You can begin exploring exaggeration by adding symbolic meaning to your designs through "shape language."

Shape language is grounded in the scientific phenomenon of "contour bias." Contour bias is a human preference toward rounded forms, while angular forms activate an area of the brain linked to fear response. Is it any wonder character designs for preschoolers tend to be rounded and soft, or that "evil" characters often exhibit more angular, triangular design choices? Ultimately, this means you have the power to influence an audience's perception of a design, and therefore a character, on a subconscious level by exaggerating shapes. By emphasizing a character's appearance according to these biases, pushing their forms and proportions to become extremely blocky, or sharp, or round, you can highlight specific qualities of their personality.

A good example of where shape has been used to convey personality is the character of Carl Fredricksen from Pixar's *Up*. His whole design is boxy and square – from his body shape, to his head shape, to the shape of his glasses. He's a square, both in design and personality! Contrast his design with that of Russell, his unexpected sidekick, who is rounded and soft. This is a perfect example of shape language in action. Look at the characters in DreamWorks' *Madagascar* – their shapes are exaggerated and stylized to create memorable designs. Alex the lion is instantly recognizable due to his geometric and perfectly manicured mane.

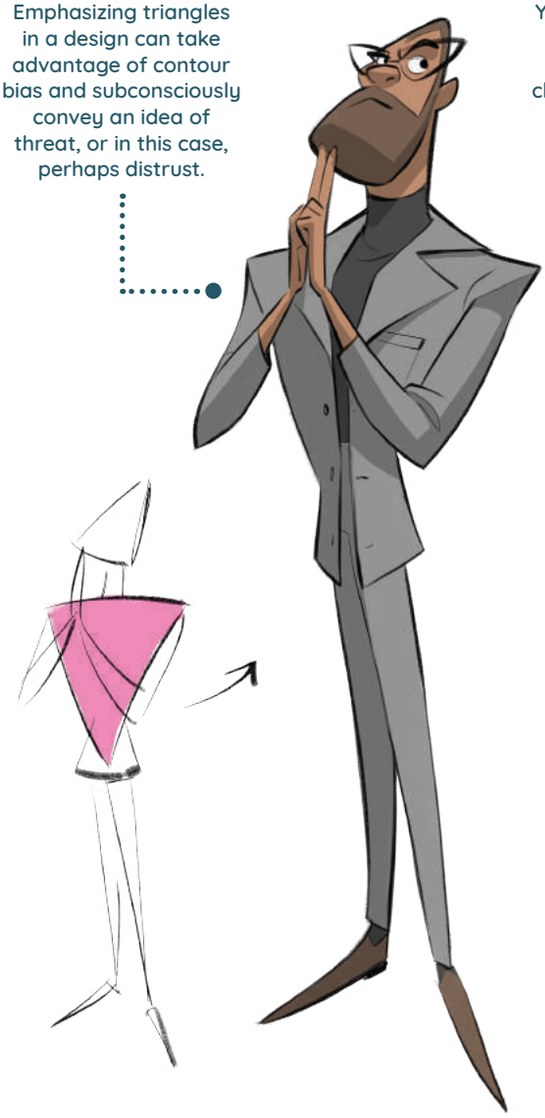
Nevertheless, a character's form cannot fully convey their personality. A designer can use subconscious cues to generate a feeling in the audience, but a character's personality is ultimately revealed through their acting and performance. You cannot rely on shape language to tell the whole story, but it's a useful tool in your toolbox.

Square design language can encourage the idea of a character as an immovable object, or can hint at their strength.

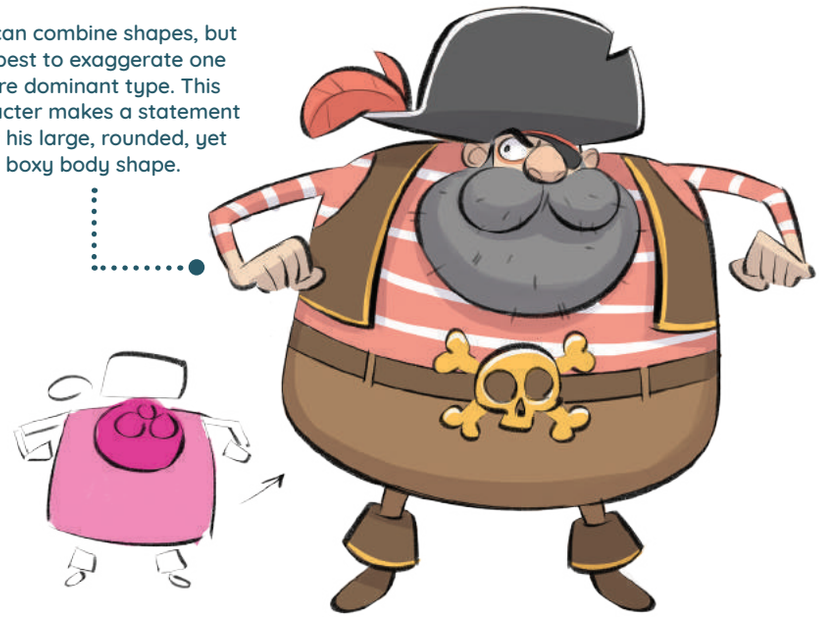


A character with exaggerated circular design language can feel jovial and unthreatening.

Emphasizing triangles in a design can take advantage of contour bias and subconsciously convey an idea of threat, or in this case, perhaps distrust.



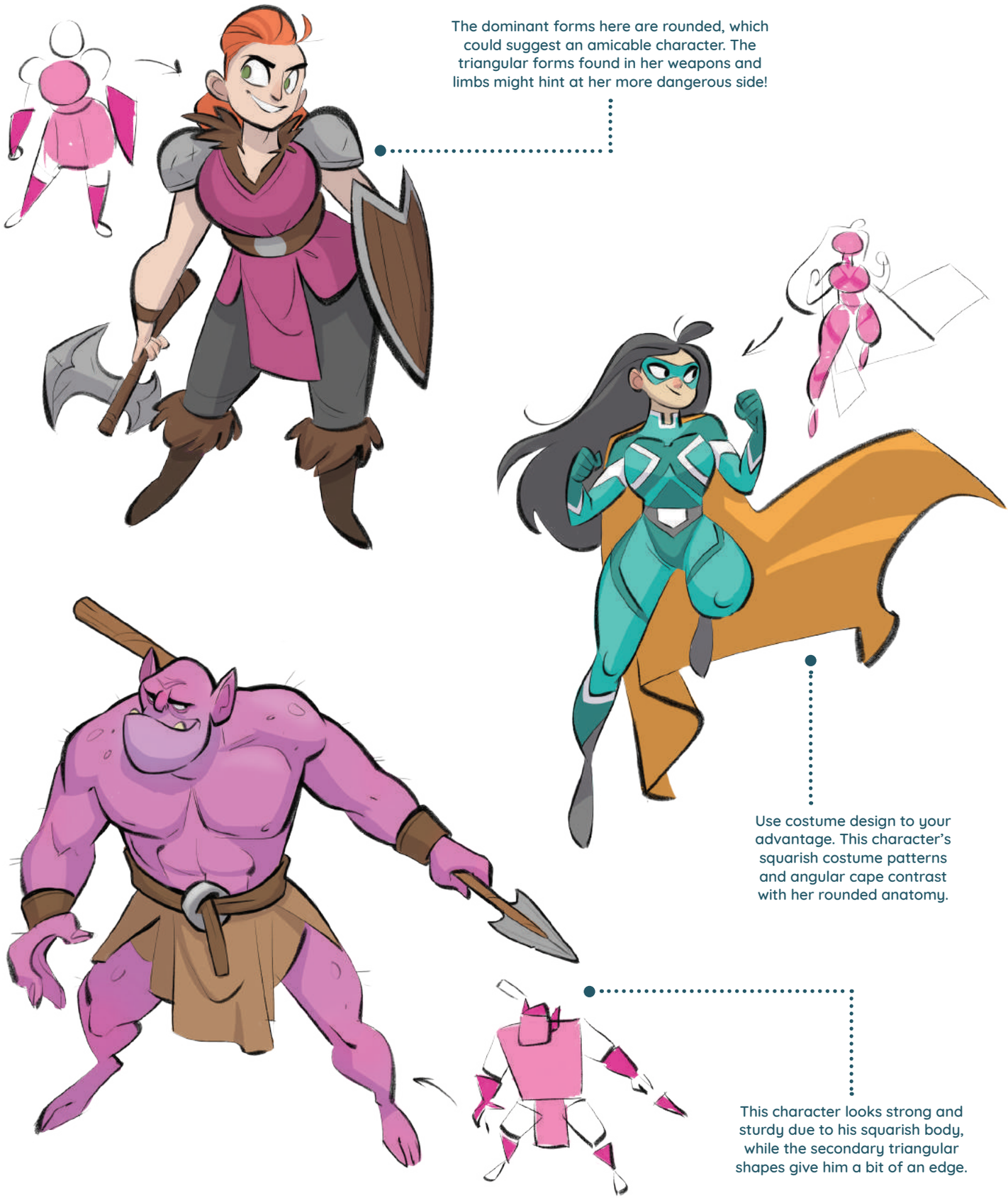
You can combine shapes, but it's best to exaggerate one more dominant type. This character makes a statement with his large, rounded, yet boxy body shape.



Again, note that one shape, the triangle, is dominant, while the circular forms are smaller and secondary.

SQUASH & STRETCH

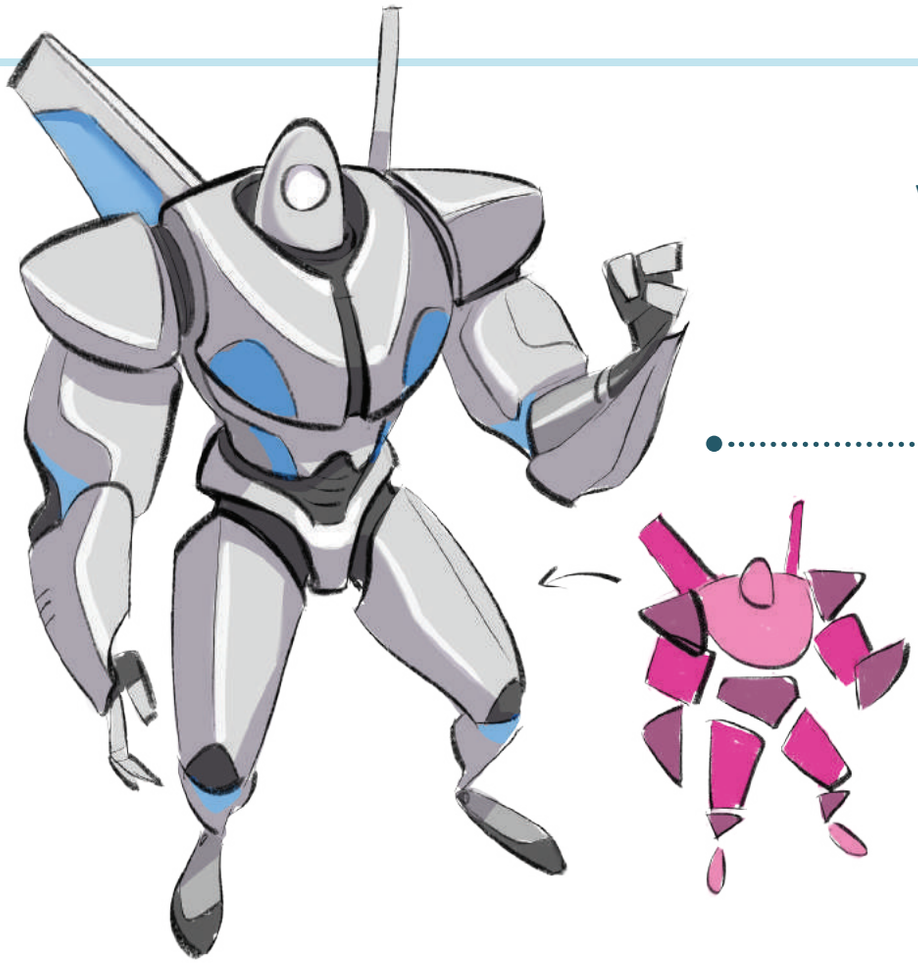
"Squash and stretch" is a useful animation principle to keep in mind while designing characters. The human body naturally squashes and stretches as it moves, compressing and expanding areas depending on an action, such as in the belly area or the muscles in the arms or face. Take advantage of this and exaggerate it. Bringing the squash and stretch principle into your work can add believability to a design and suggest a character is flesh and blood, has form, and is not just a drawing or a three-dimensional model. If a character's masses never distort, they will start to look wooden and lifeless.



The dominant forms here are rounded, which could suggest an amicable character. The triangular forms found in her weapons and limbs might hint at her more dangerous side!

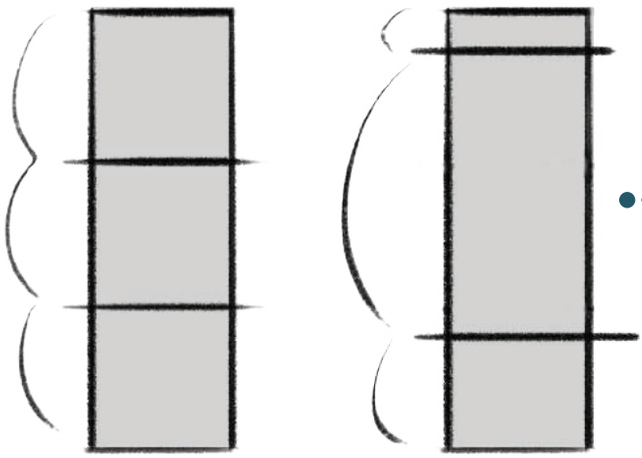
Use costume design to your advantage. This character's squarish costume patterns and angular cape contrast with her rounded anatomy.

This character looks strong and sturdy due to his squarish body, while the secondary triangular shapes give him a bit of an edge.



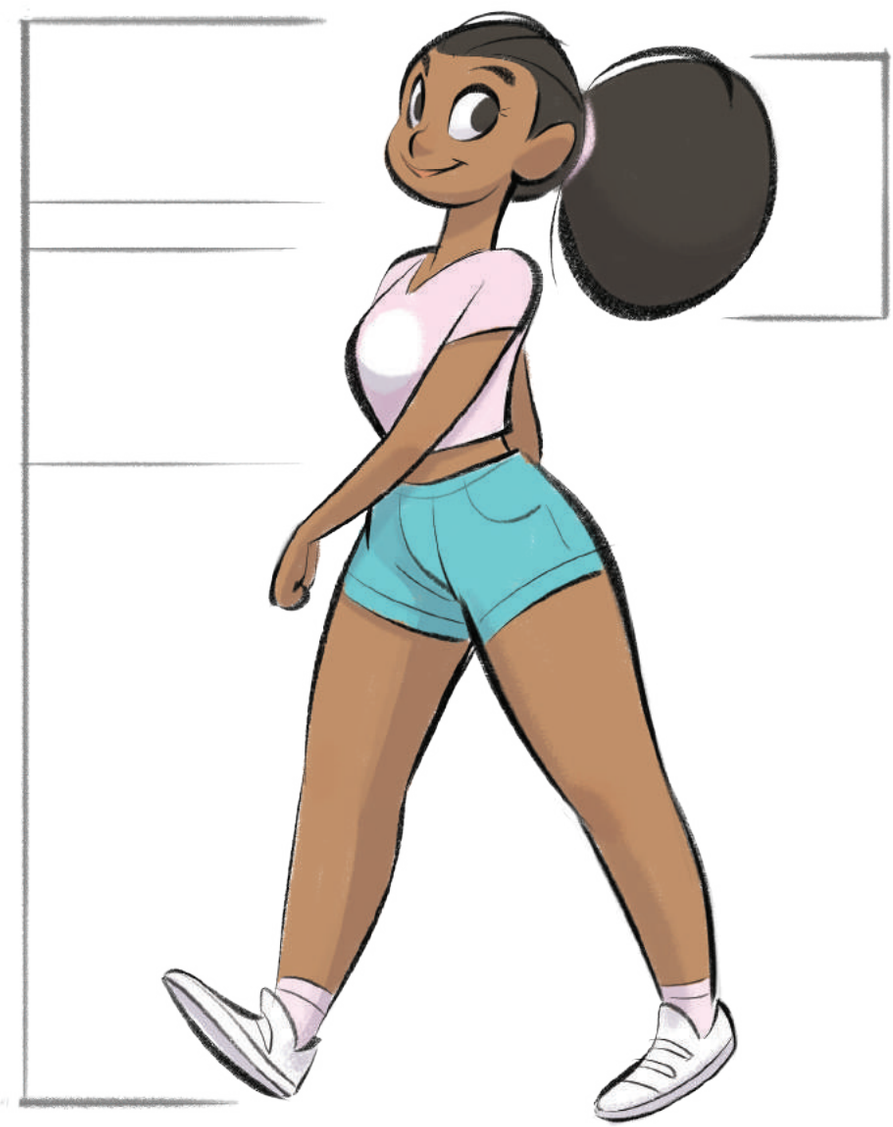
When combining more than two shapes, take care to balance them effectively. Experiment with proportion, scale, and dominance of forms to achieve such balance in a design.

If this character was meant to inspire fear in an audience, it might help to choose less rounded shapes! Instead, it reads more comically, which would work well for a fun kids' TV show.

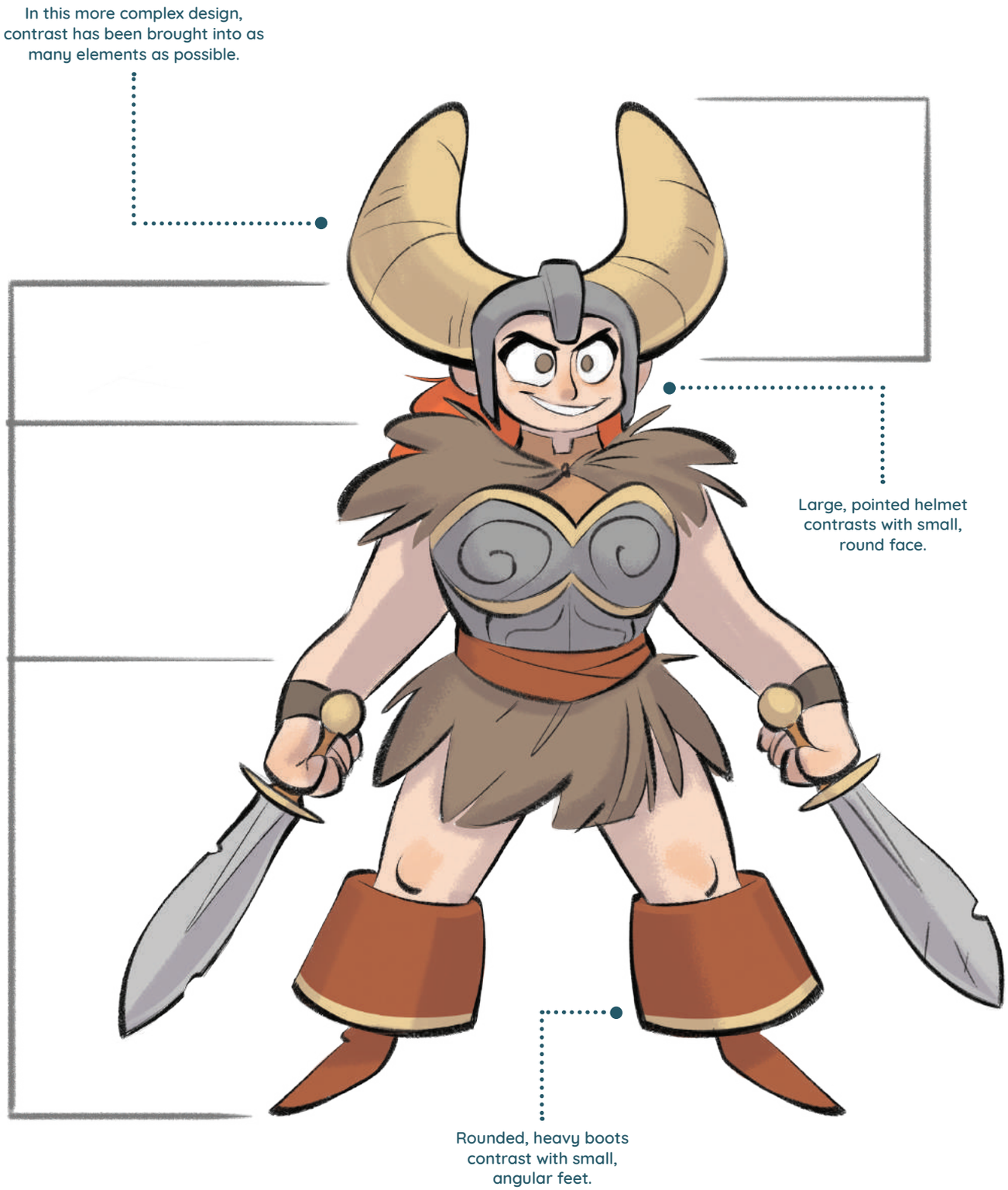


Contrasting forms

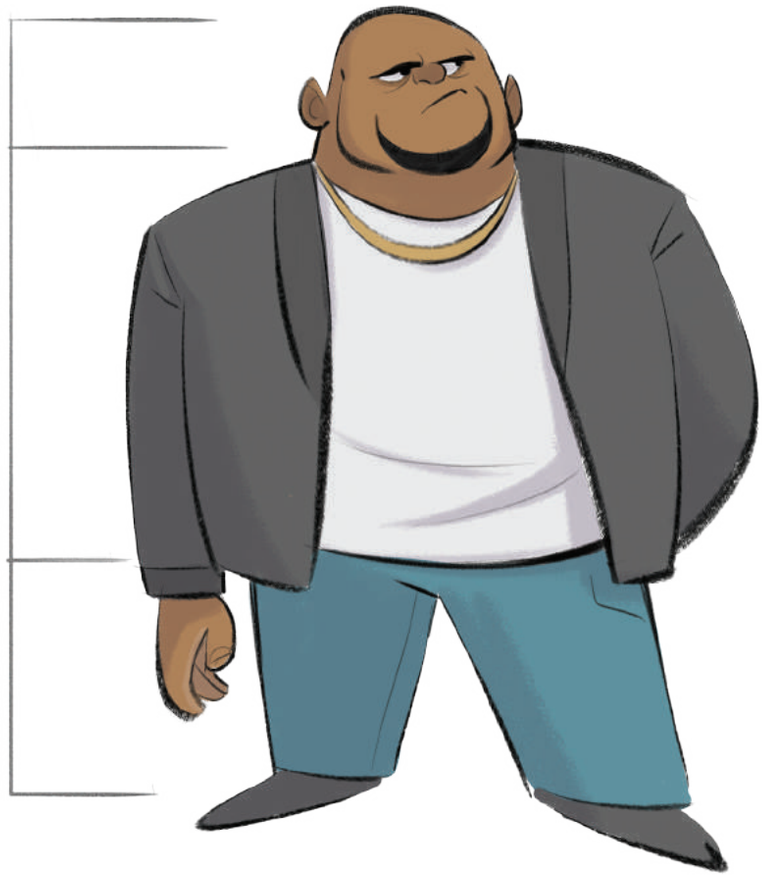
One of the most important concepts in design is contrast. It's what makes things visually interesting. Compare these two "ladders" – which is more interesting to look at?



The natural contrast between this character's head size and legs has been pushed. Note how the body is also a different length.

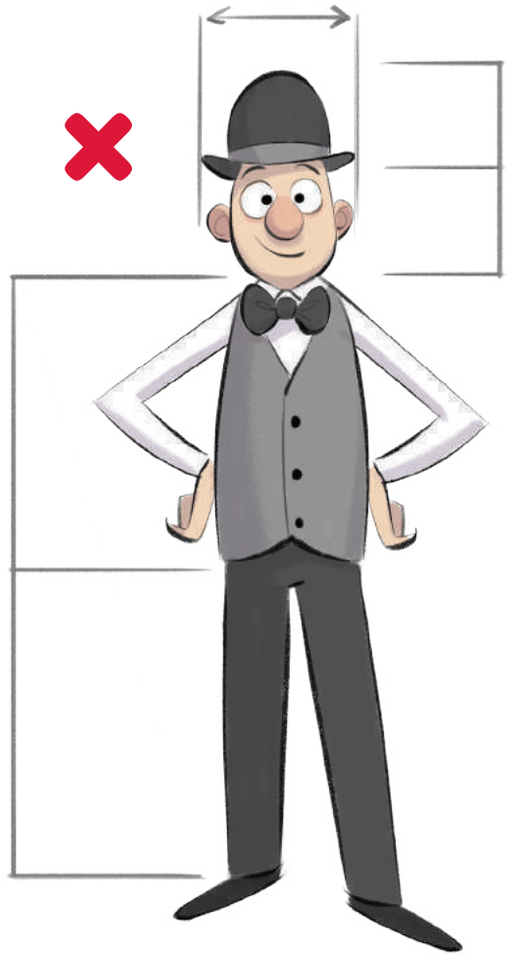

In this more complex design, contrast has been brought into as many elements as possible.
Large, pointed helmet contrasts with small, round face.
Rounded, heavy boots contrast with small, angular feet.

A lot of the fun in this design comes from the contrast of the head with the body – the body is huge and dominating with a relatively tiny head perched on top.

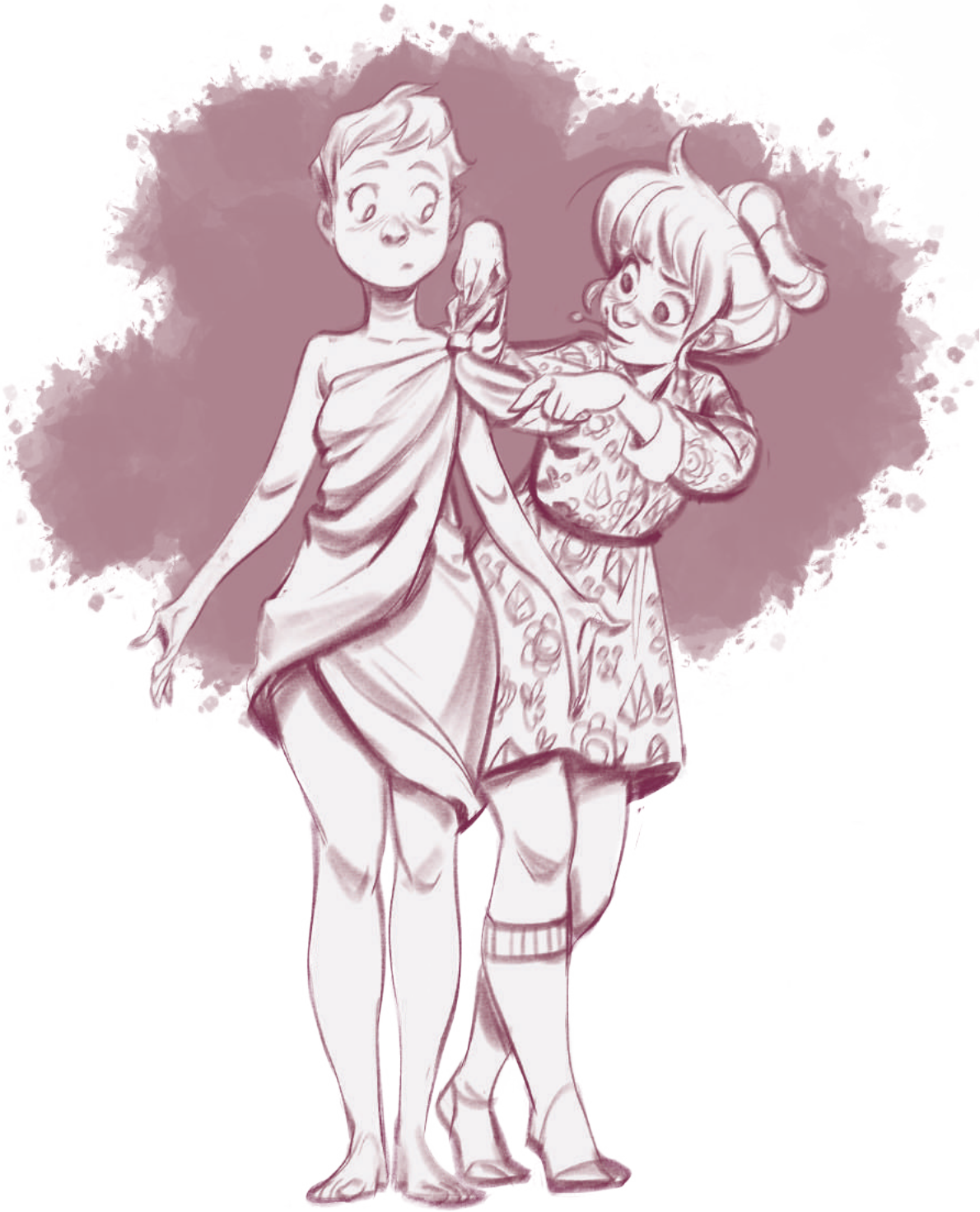


A person's legs are not generally shorter than the main portion of their body, though there are exceptions. Experiment with this and exaggerate things beyond realistic boundaries.

Remember that contrast is not just vertical, but can be horizontal. This character's wide, brimmed hat contrasts well with her thinner body shape.



This character has a natural contrast between head and body, but lacks contrast overall. Most of the size relationships are balanced, with little exaggeration. It's not very exciting to look at, but a balanced and very bland character personality might suit these design choices!

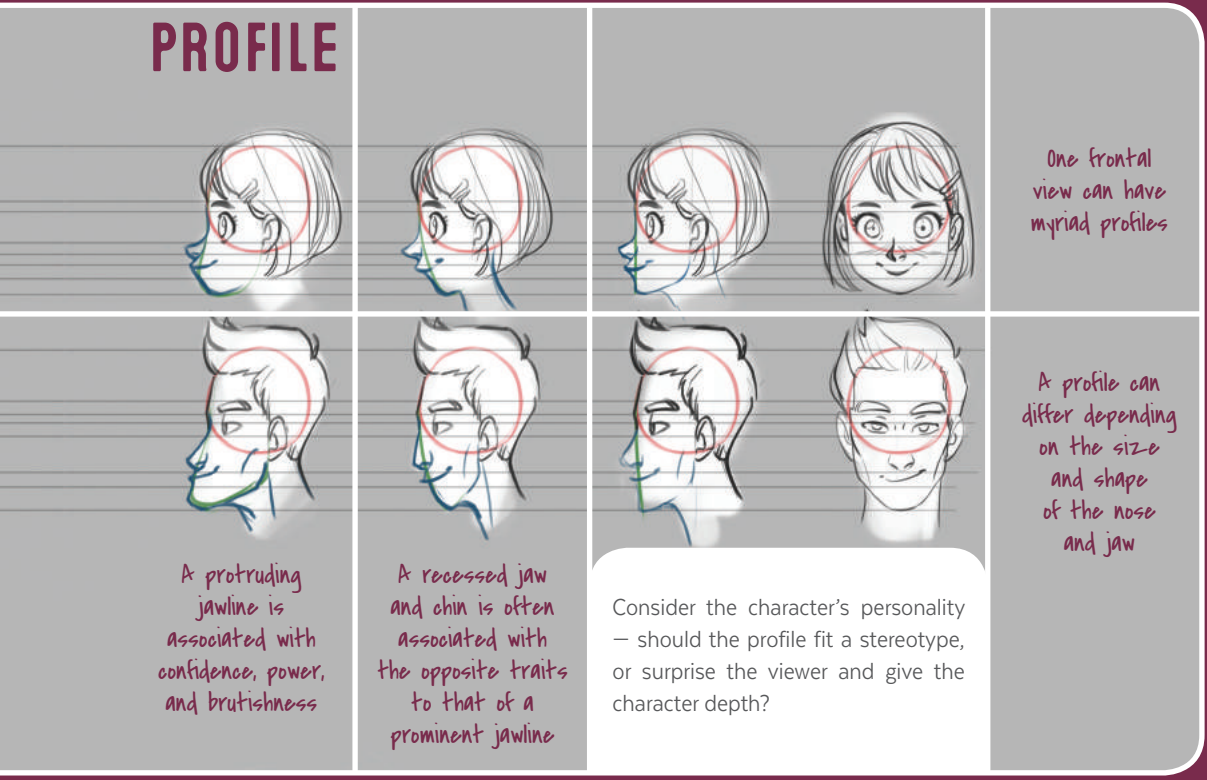


CHARACTER DESIGN

Driven by my love of character work, my first book, *Sketch Every Day*, heavily focuses on the design of characters. To extend that bank of knowledge, here I want to share more of the finer details of the inner workings of humans – our basic anatomy, as well as the way we move, act, and dress.

ANATOMY

PROFILE



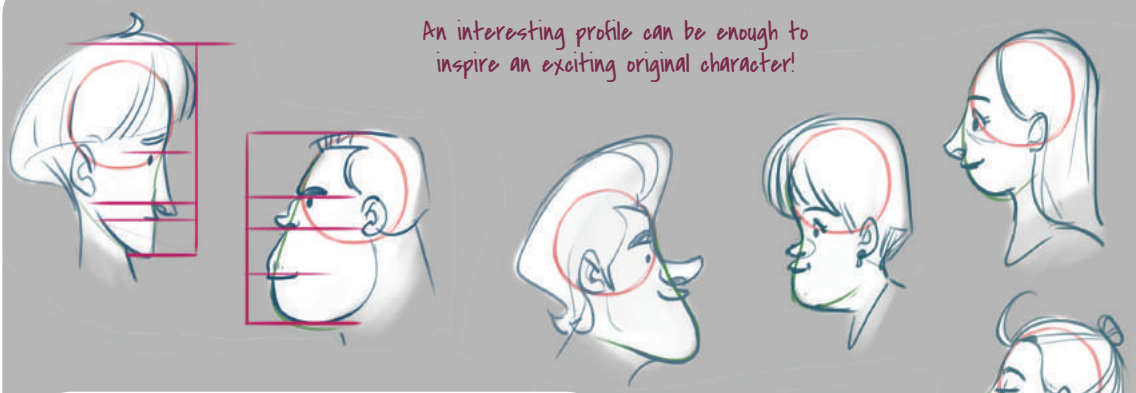
A protruding jawline is associated with confidence, power, and brutishness

A recessed jaw and chin is often associated with the opposite traits to that of a prominent jawline

Consider the character's personality — should the profile fit a stereotype, or surprise the viewer and give the character depth?

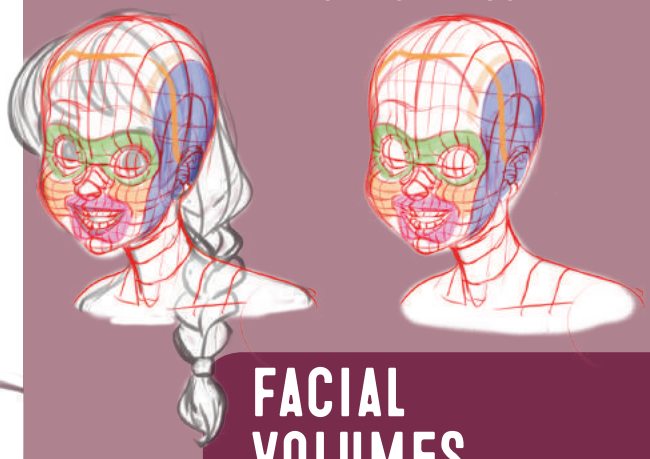
One frontal view can have myriad profiles

A profile can differ depending on the size and shape of the nose and jaw



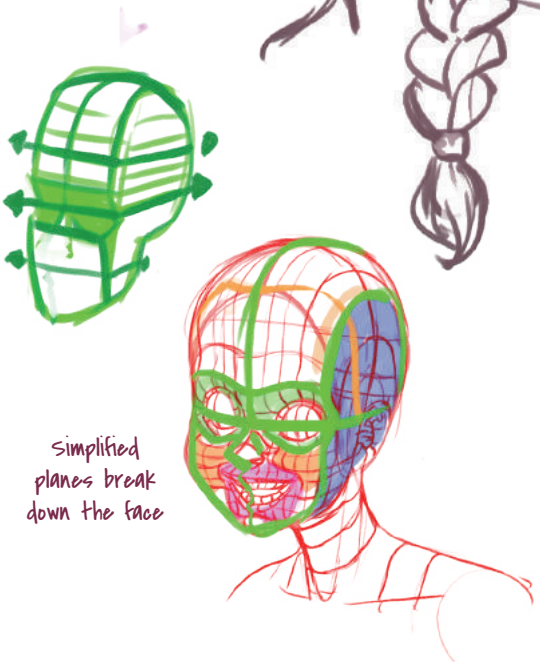
An interesting profile can be enough to inspire an exciting original character!

To find a starting point when drawing a head, it might help to first draw a circle. Play around with adding extra lines to the initial circle and see where the shape takes you. Just remember to vary the proportions!

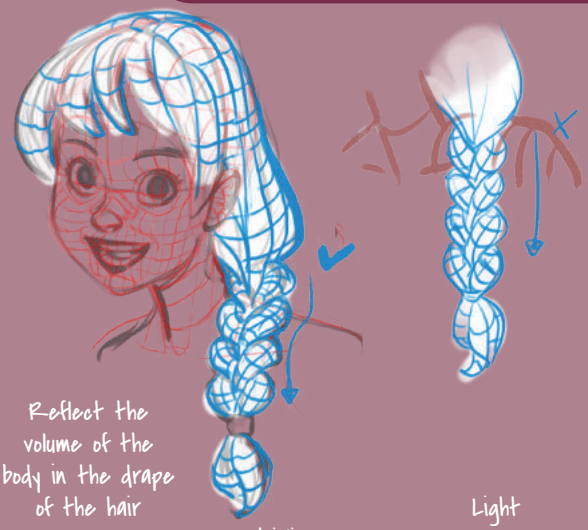


FACIAL VOLUMES

Using the underlying muscle structure as a guide to segment the face and head makes it easier to understand the volumes.



Simplified planes break down the face



Reflect the volume of the body in the drape of the hair

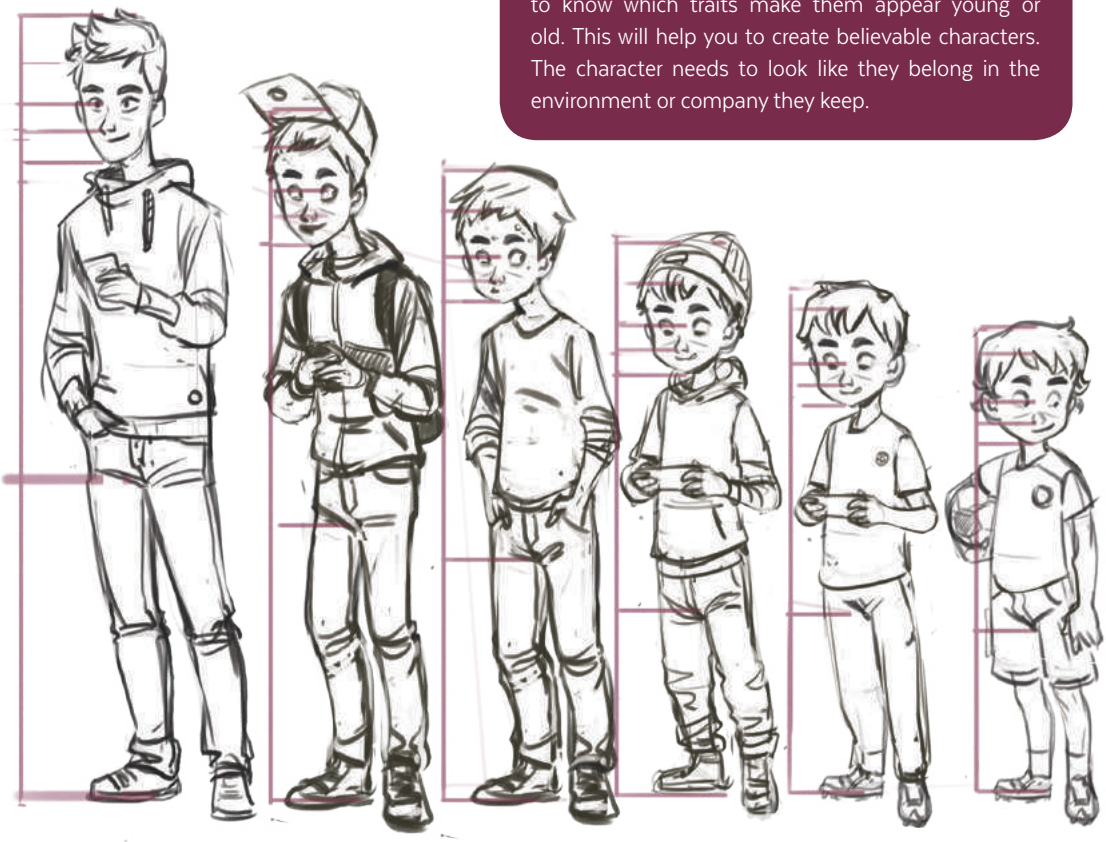
Hairline

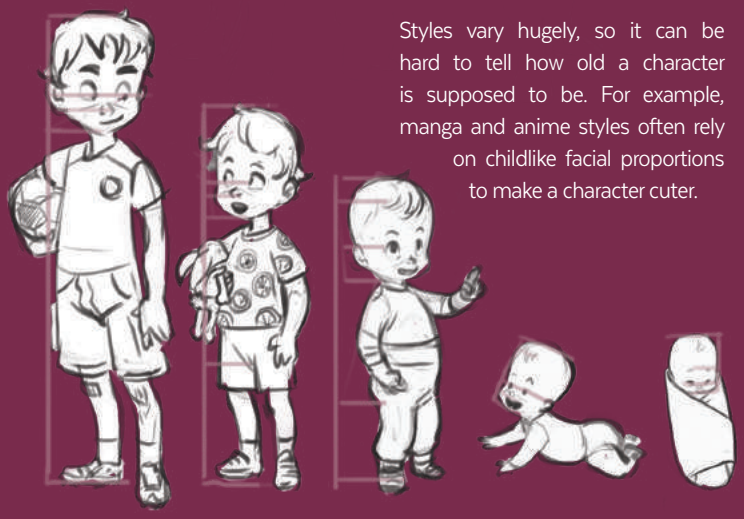
Light source

Building a volume grid aids shading later

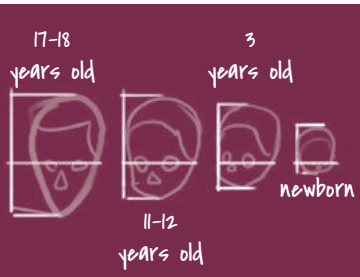
AGING

It's important to understand how to age a character, to know which traits make them appear young or old. This will help you to create believable characters. The character needs to look like they belong in the environment or company they keep.





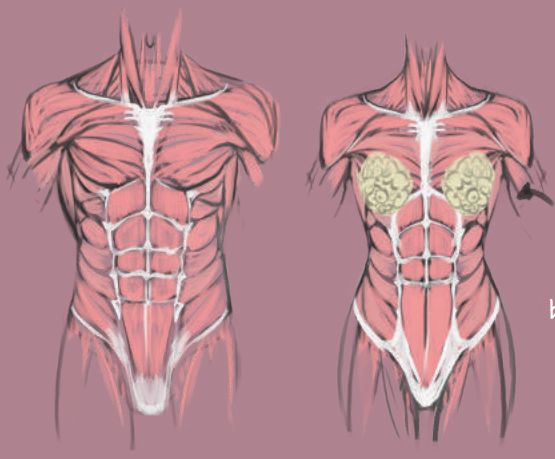
Styles vary hugely, so it can be hard to tell how old a character is supposed to be. For example, manga and anime styles often rely on childlike facial proportions to make a character cuter.



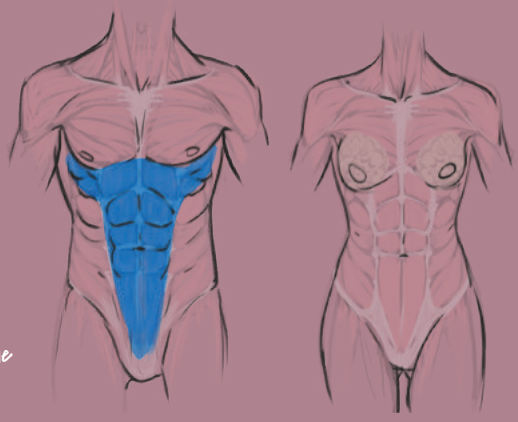
To effectively age the face of a character as they get older, I make the nose larger and the jaw more defined.

The eyes remain similar in size during most of the aging process, while the other features around them grow.

TORSO: FRONT

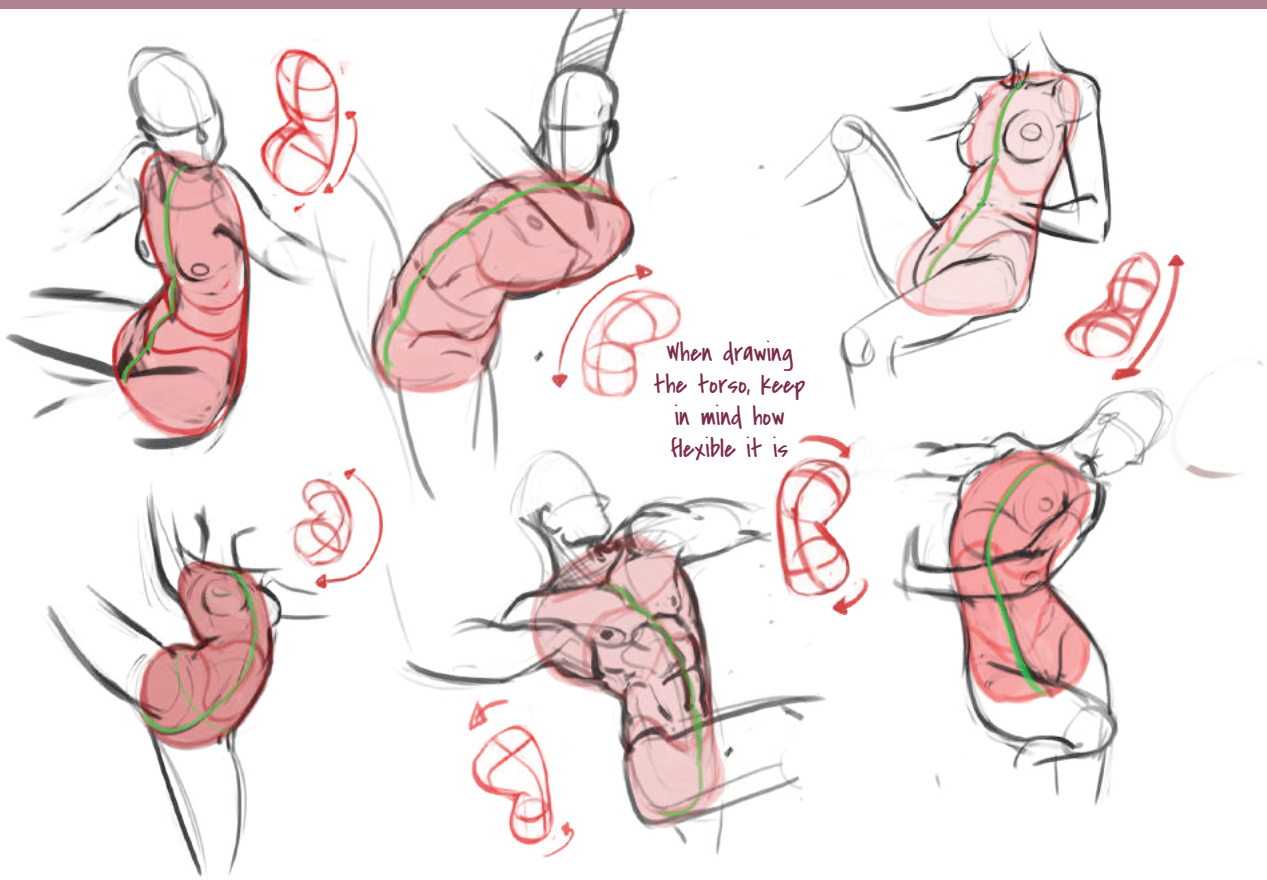


unusual texture in breast tissue



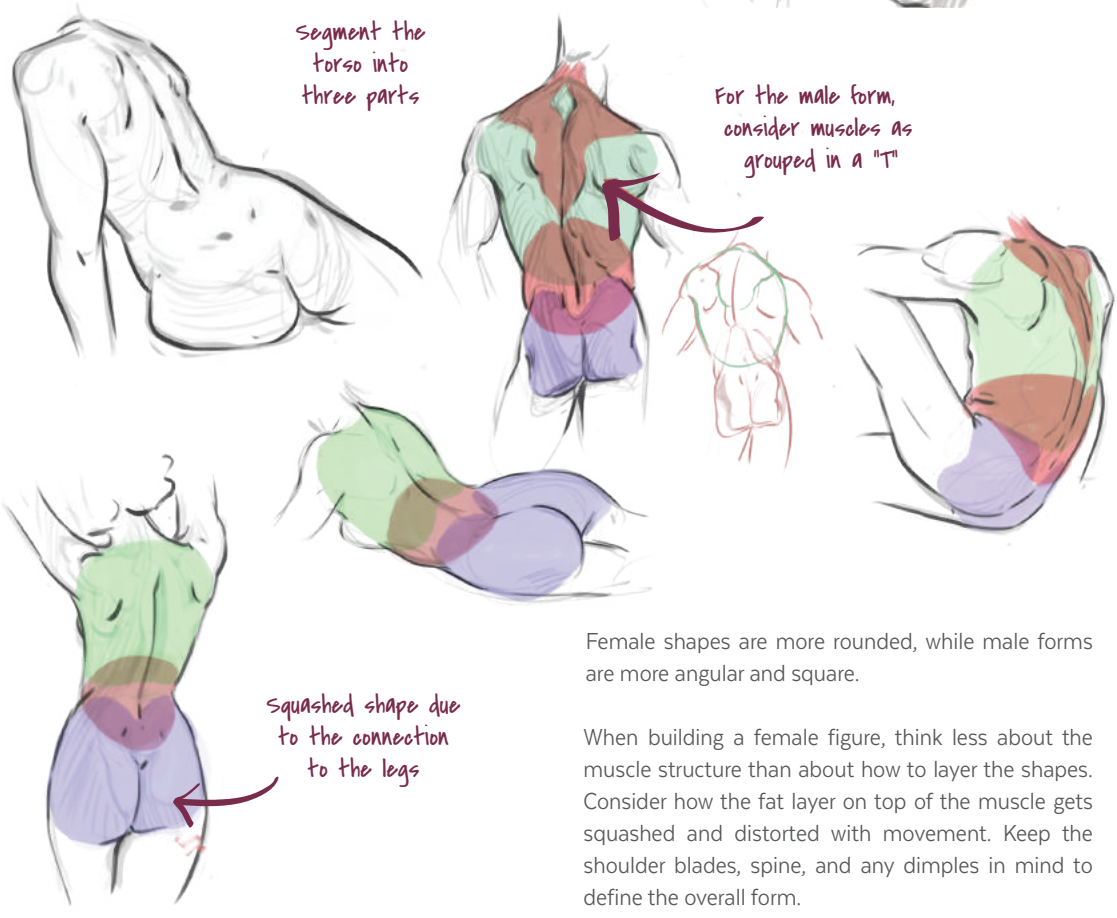
Abdominal muscles can have very different shapes — don't make the mistake of drawing them straight and flat!

In the male chest, I imagine the stomach and under-breast muscles making a "T" shape. The female musculature is not as prominent as in a male. When drawing the female torso, I don't think much about the muscles.



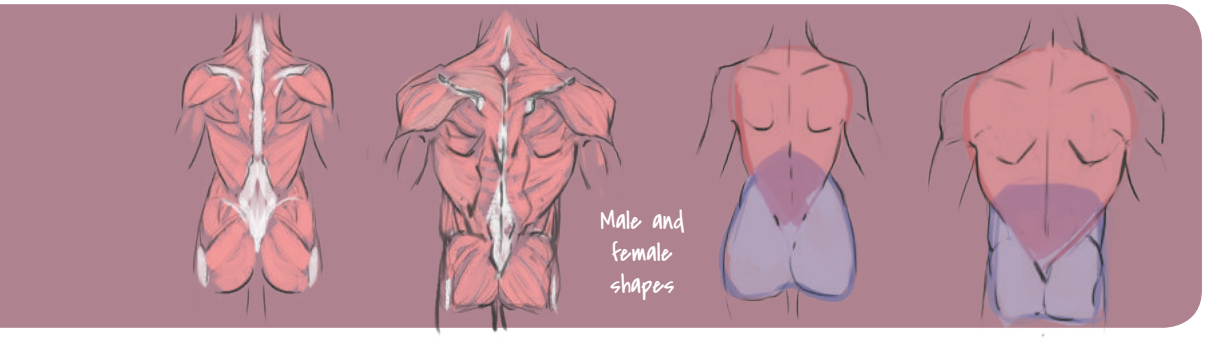
TORSO: BACK

When aiming to simply capture the aesthetic of the back, it is useful to understand how the muscles spread along the back, but knowing every individual muscle is not necessary.

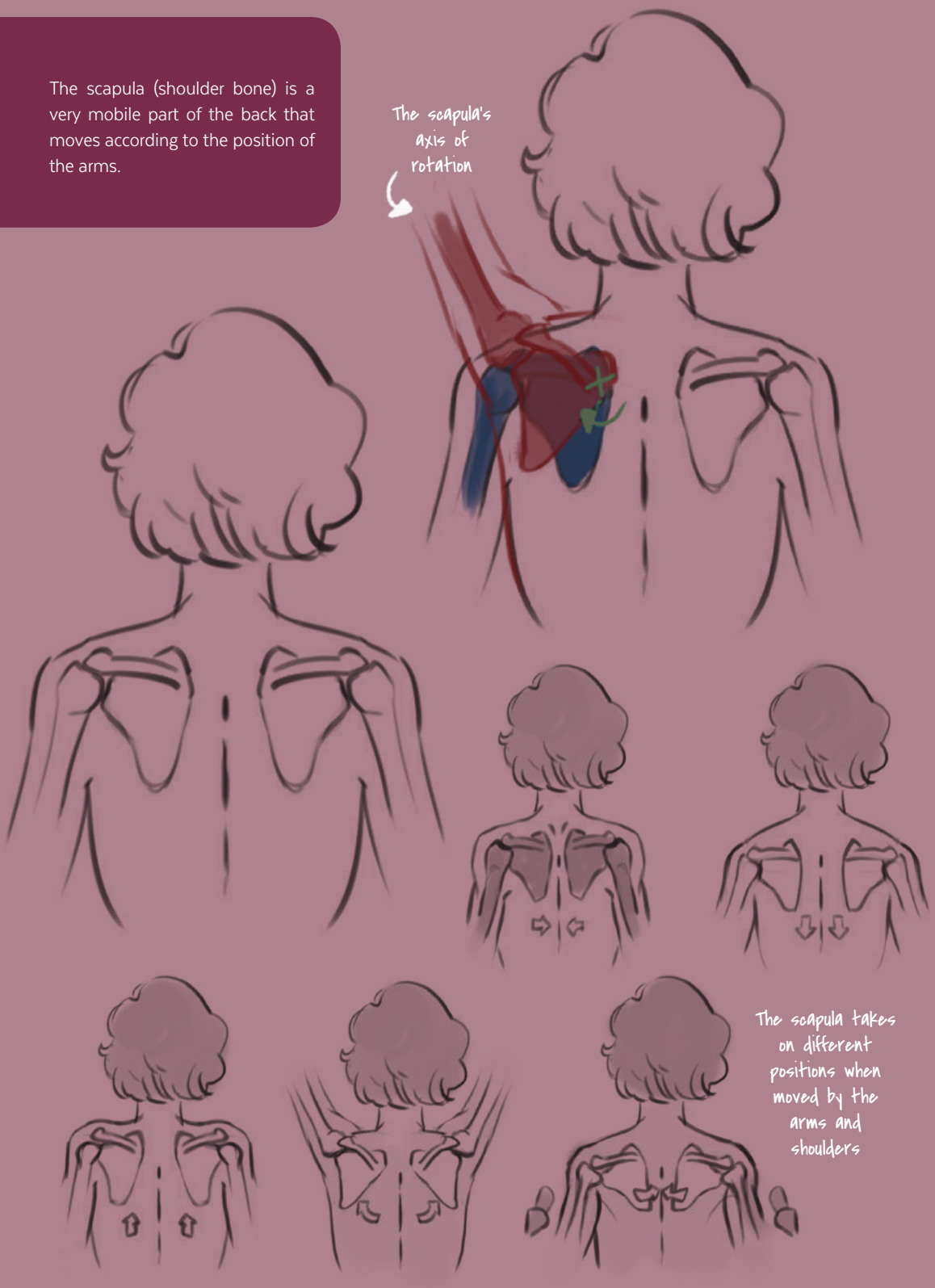


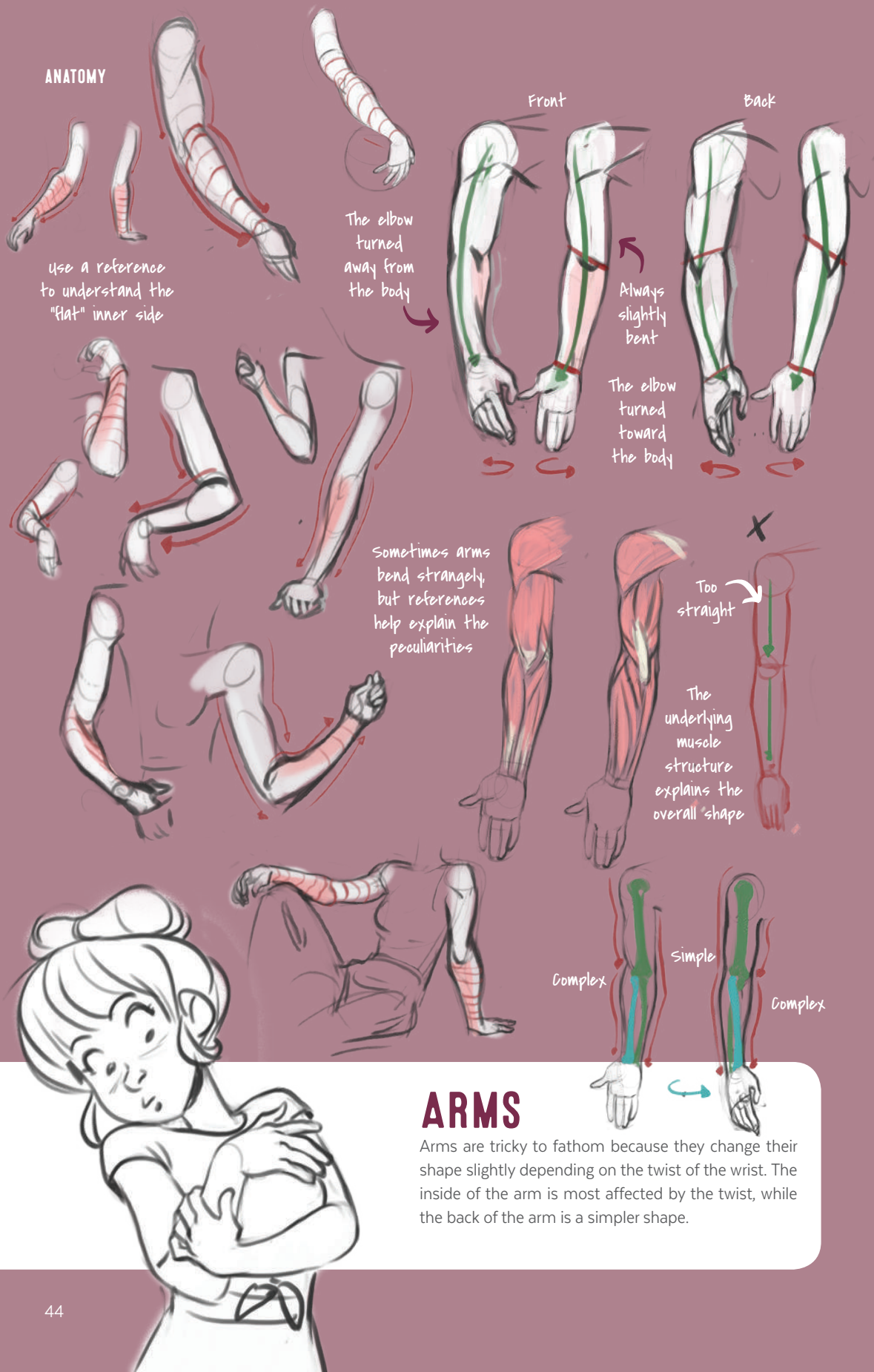
Female shapes are more rounded, while male forms are more angular and square.

When building a female figure, think less about the muscle structure than about how to layer the shapes. Consider how the fat layer on top of the muscle gets squashed and distorted with movement. Keep the shoulder blades, spine, and any dimples in mind to define the overall form.



The scapula (shoulder bone) is a very mobile part of the back that moves according to the position of the arms.

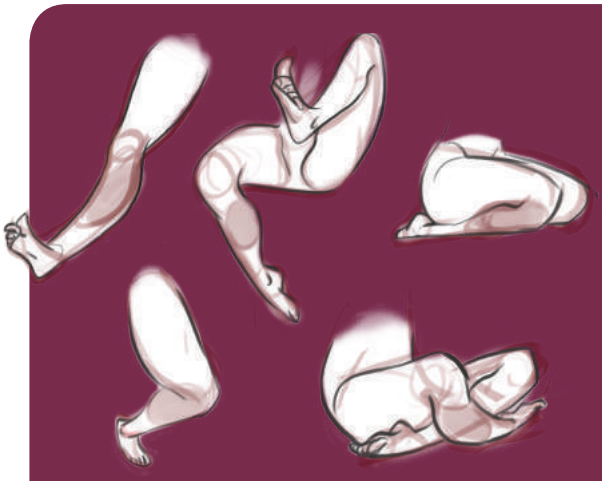




ARMS

Arms are tricky to fathom because they change their shape slightly depending on the twist of the wrist. The inside of the arm is most affected by the twist, while the back of the arm is a simpler shape.

Complicated muscles show that legs aren't just vertical sticks!

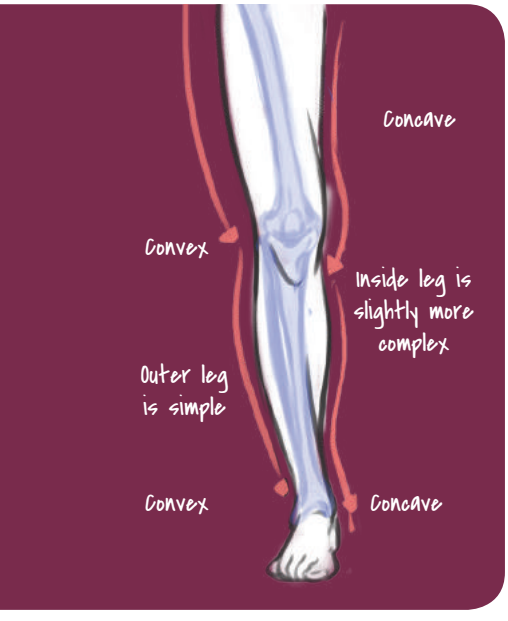


I prefer to sketch the calves as ovals within the lower leg

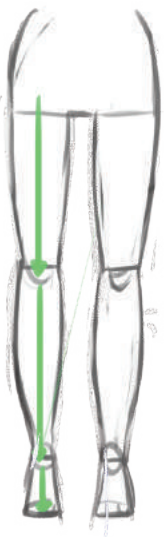
LEGS

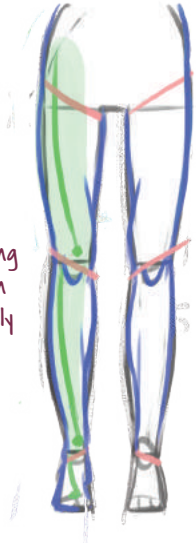
STRAIGHT VS. CURVED LINES

Remember that legs are slightly flexible, including the bones within, so they shouldn't appear rigid and stiff. Mix curved and straight lines to achieve a more realistic form.

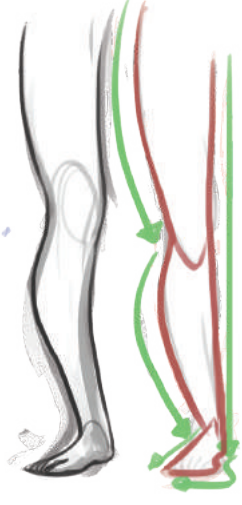


Pointing straight down





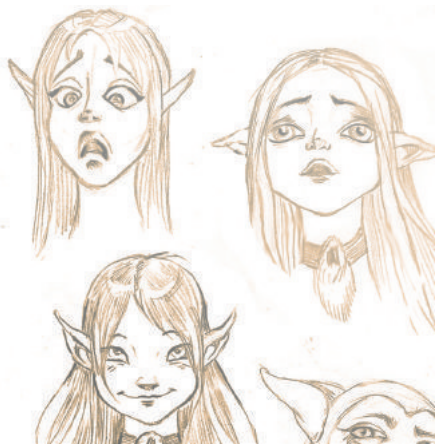
Curving down gently

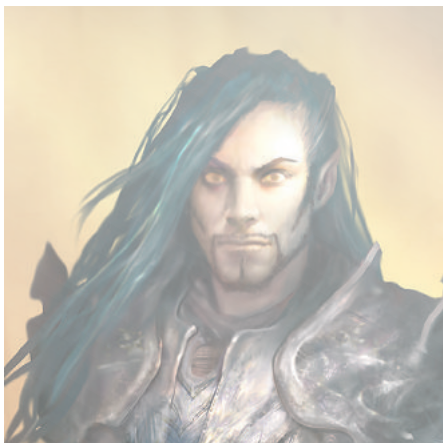


You don't need to know where all the muscles are, but it's important to understand their flow

Too stylized and appear bendy – subtle dents give a simple rounded shape

Joints shouldn't appear straight – it looks unnatural

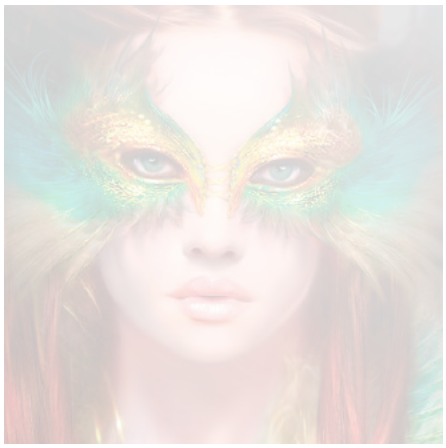


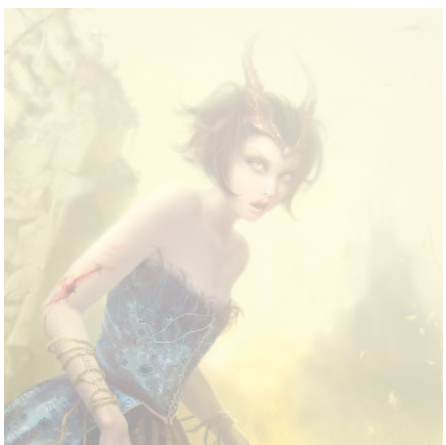


Establishing your character

Discover key art theory techniques and top tips to present compelling and recognizable character designs.

You now have the knowledge to set up your workspace and tools, but how do you go about designing a convincing character? In this section Benita Winckler will present some notably recognized theories linked to depicting a character. Starting with form and anatomy, Benita will then take you through character types, composition, storytelling, and moods, using images to demonstrate definitions and discuss the clues and tools behind communicating an effective character creation.

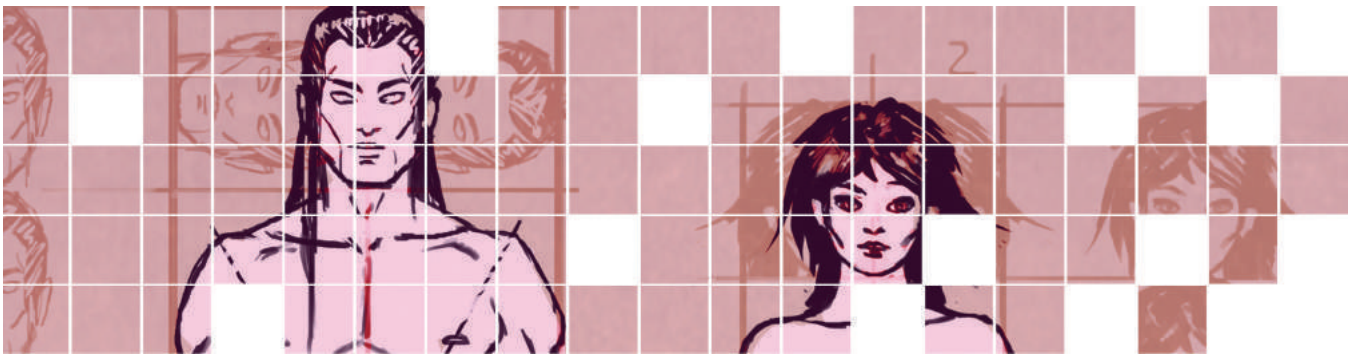




Form and anatomy

How to portray your character through the use of body types and gestures

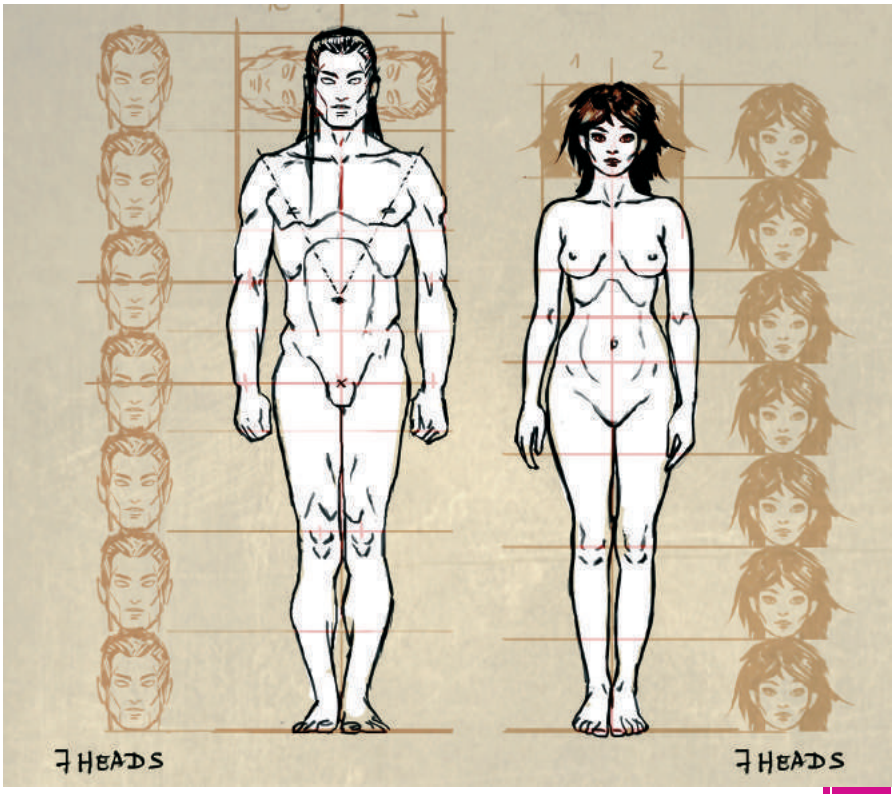
by Benita Winckler



The human interest in portraying characters has a long history, in some ways making character design an ancient art form. Nowadays artists have the mighty Photoshop available, but the basic problems of how to present a character in the most compelling and recognizable way still remain. To make a character design work, you need to consider many different aspects, including form, shape, posture, and facial expression.

It's also important to understand that it all starts in the mind of our audience. The more we know about the clues and magic tools behind the art of communication, the more powerful and effective our creation will be.

A character consists of much more than just his or her high-tech armor. If we can manage to scratch at the surface and bring out what is behind the fabric, metal, or painted mermaid scales, then we can show our viewer a real "person" and they will be able to make the connection.



▲ The human figure is about 7–8 heads high as a guidline 01

Step 01

Form and anatomy

Form is one of the first things we perceive when looking at a character. Based on the appearance, the anatomy, and the pose, we start to make assumptions on what we can expect from the character in front of us: for example are they a friend or a predator? Strong or weak? Young or old?

When taking in the available information about the world around us, our brain starts to generalize; we run internal scripts and then certain responses are triggered. This happens lightening fast and often without our conscious awareness. The result can be that we are afraid of someone, or that we feel drawn to them, for example.

Looking at a baby, for instance, will trigger emotions of protecting something helpless, while looking at an image of a powerful attacker will trigger feelings of fear, awe, or antipathy. This all happens on a deep, subconscious level.

Why is all of this interesting for us as character designers? Because we can play with these assumptions to communicate our stories and ideas to our audience!

Let's look at how to draw the basis of the human form from which we can then start our exploration. As a general guideline for proportions, the human figure falls between 7–8 heads in height (see image 01). Notice that the female form is rounder, softer, and less angular than the male. These kinds of differences in the overall shape can be used with great effect as we will discuss next.

Step 02

Shapes and personality

Why is it that the form and the overall shape are so important when it comes to designing our character? Based on our experience with the objects in our world, you could say that we are able to assign different personalities to different kinds of shapes (image 02a).

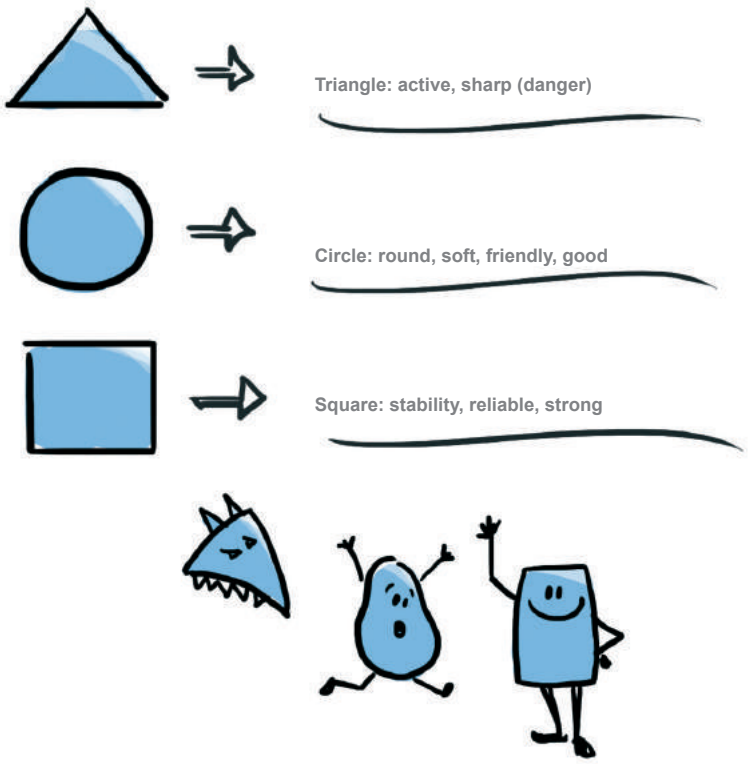
Think about a sharp object, like a knife or a shard of glass. What does its basic shape look like? It has a hard edge; it is pointy, spiky, and probably has some straight lines. Reduced to a basic shape this can give you a triangle. If this idea is taken further, you could enhance your character's design by adding triangular shapes to create a sense of evil and give them a dynamic edge.

Alternatively, think about a round object, like a pear or an apple. These create a sense of softness and gentleness often associated with female characters. You could use these attributes for a friendly character by giving it flowing curves and rounded forms.

Another basic shape we can use for our designs is the square or rectangle. Its attributes are that of strength and stability. It is static. Think of building blocks that can form a house. Rectangles are reliable. They will not fall over so easily. If used in your design, rectangular shapes can help to give an impression of a good, strong character.

You could use a combination of these shapes to develop different character ideas (image 02b).

Using shapes for character design



02a

▲ Basic shapes can enhance the personalities of your character design. Triangles = dynamic, sharp, dangerous. Circles = calm, friendly, soft. Squares = static, strong

02b

▲ Combine basic shapes for new character ideas! Here, a round head shape (friendly) plus some spikey triangles (possible danger) creates a rascally beastling

★ PRO TIP

Break the rules

Playing with these shape stereotypes and "breaking the rules" can add a lot of freshness and interest to a design! What about creating a feminine-looking, male villain with long hair and dark eyelashes? Or a male-looking, strong heroine? Try angles on a female or soft rounded forms on a male.

Step 03

Differences in female/male portraits

So, what is it that makes a male face look "male" and a female face look "female"?

If you take a look at image 03a, the generic male has hard lines, angularity, features as if chiseled from a rock, a strong jaw-line, and a square chin. The female portrait shows delicate, rounded features, overall soft curves, and no harsh angles.

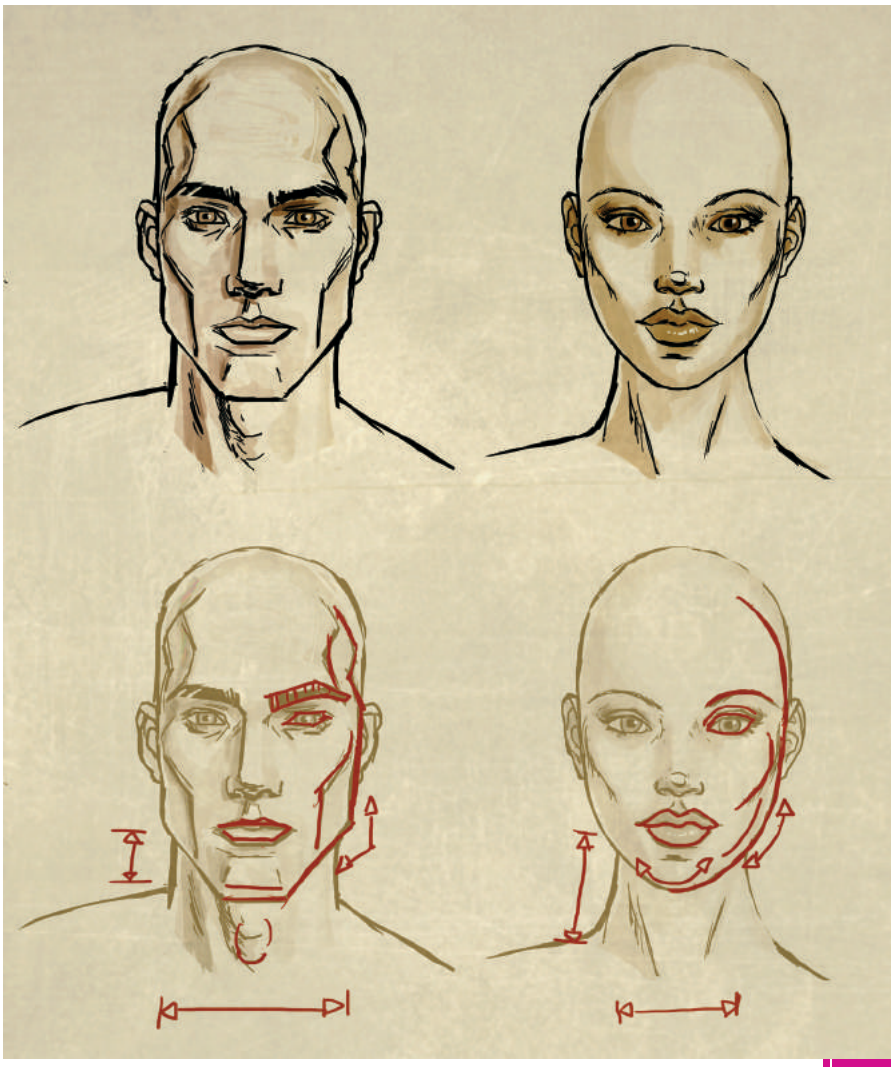
To produce a male-looking portrait, draw the head shape a bit squarer and more angular, make the neck shorter and thicker, and add the Adam's apple.

For a female head, draw the lines rounded, with less sharp corners. Her neck will be longer and thinner with soft curves instead of straight lines. The skin tones can be darker for the male, indicating rough features and a hint of facial hair; for the female paint the skin light and silky.

For your female portraits, paint the eyebrows in a fine soft curve. You can see the effect of masculine bushy eyebrows on a female portrait in image 03b.

For females paint the eyes more open and bigger than the males'. To enhance the female touch you can add eyelashes and eye makeup. For females paint the nose delicate with finer features.

Female lips tend to be fuller; however males can be equipped with beautiful lips and still look masculine.



▲ Generic faces in comparison. Notice the differences **03a**

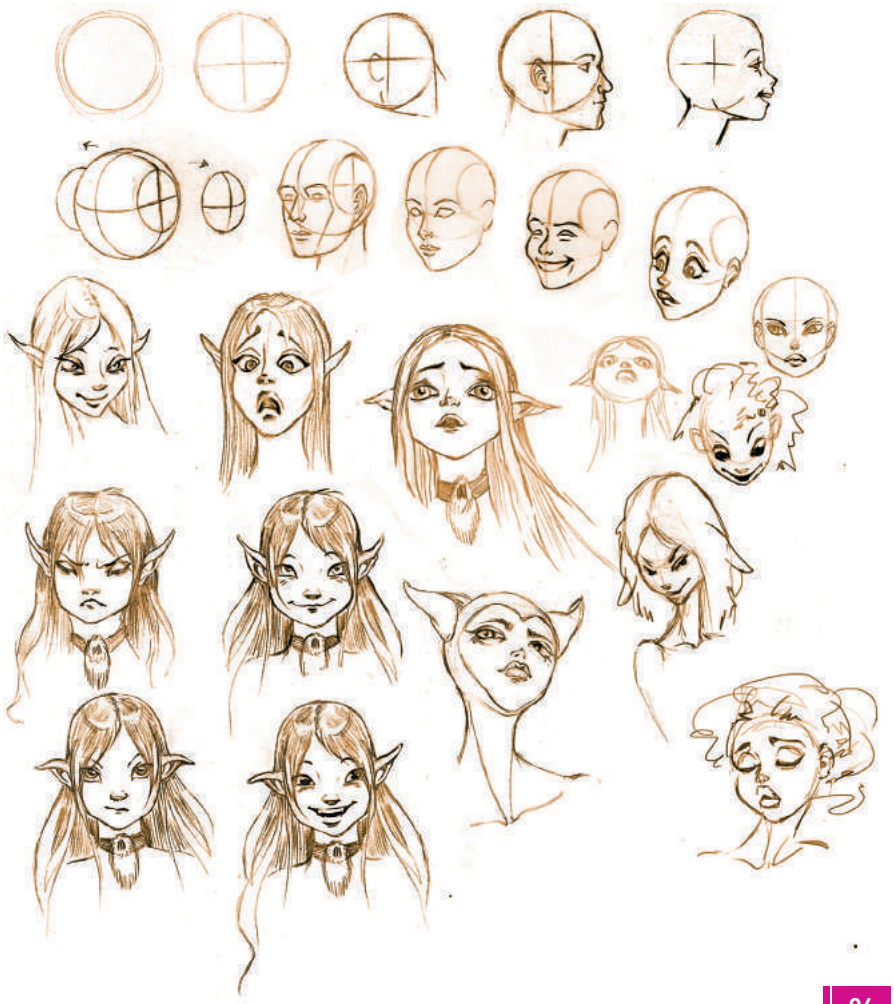
Step 04

Facial expression and mood

Unless our character is a very good actor, poker player (or has had lots of Botox injections that prevent the facial muscles from working), we will be able to tell his or her emotional state from the facial expression and the look in their eyes (image 04). Are the eyebrows raised or furrowed? Are the eyes wide open or droopy half-awake? Is the mouth relaxed? Smiling?

There is a great variety of emotions, positive and negative, and our facial features will display them accordingly: happiness, pleasure, interest, disgust, anger, contempt, fear, and surprise, just to name a few. However it will help a lot if you don't just stick to these basics; instead try to invent some sort of context for your character – a story, a

▲ Thick, bushy eyebrows for females will create a masculine effect **03b**



▲ Depending on the intensity of the emotion, the whole face will be affected, stretched and twisted, by the expression

04

special situation that he or she is confronted with – so that you can come up with better fitting expressions with finer nuances.

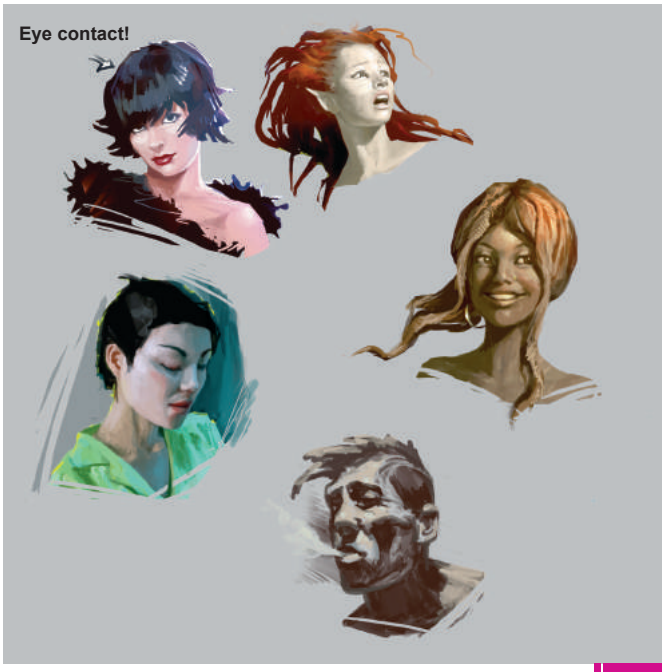
"A look can be challenging or inviting; it can signal interest, involvement and warmth, fear, sadness; or it can seem brutally cold and intimidating"

Step 05

Eye contact

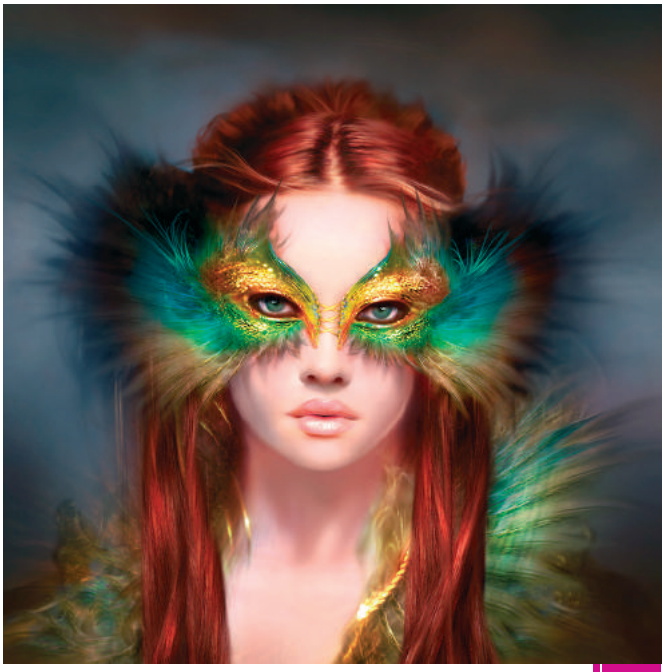
How do you give your character that special "look", which really brings them to life? Just as in the old saying, "the eyes are the window to the soul", you can use the eyes of your character to communicate how they feel and what they are thinking. A look can be challenging or inviting; it can signal interest, involvement and warmth, fear, sadness; or it can seem brutally cold and intimidating.

If you take a look at images 05a and 05b below, you can also see that a portrait of a character that is directly looking into the camera can have an intense effect on the viewer because of the connection that will be established – it addresses and involves the viewer directly. This can be a useful trick so keep it in mind!



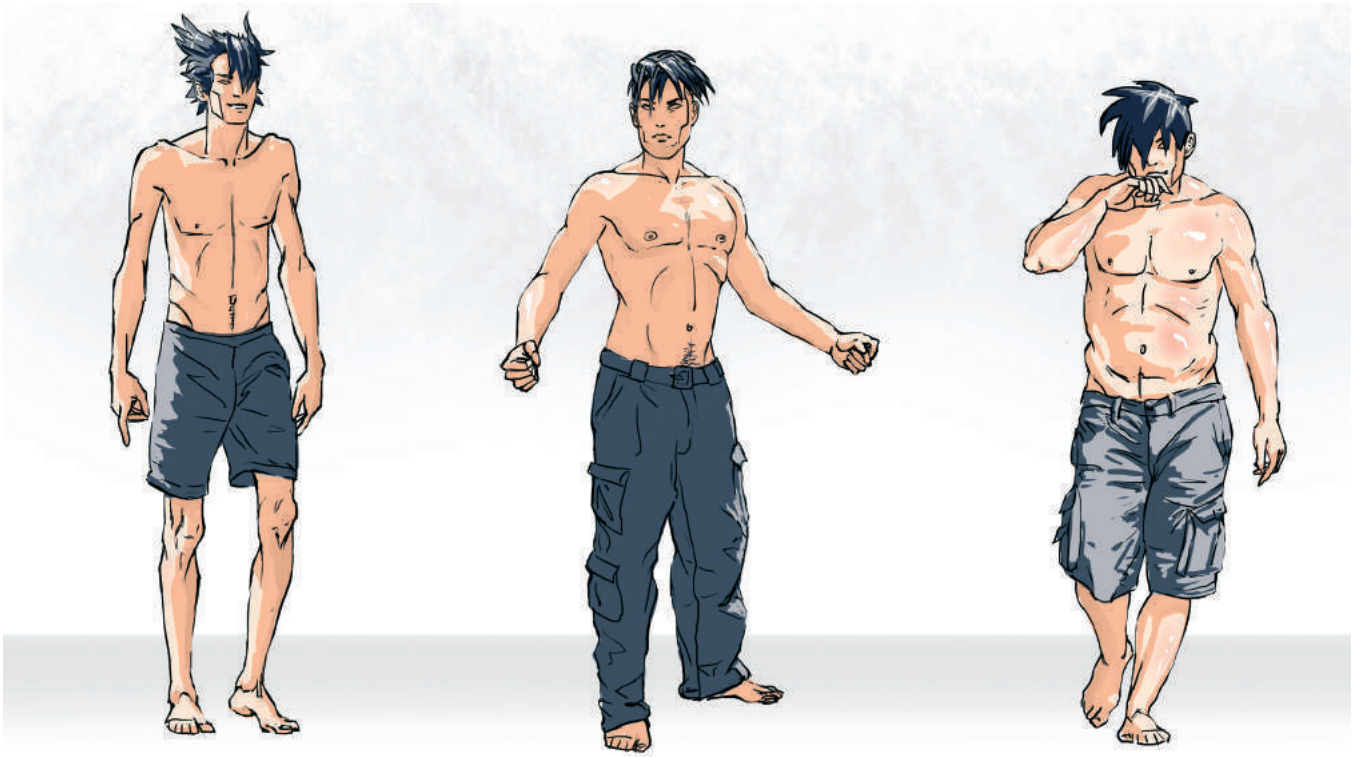
▲ Characters who look directly into the camera can create an instant connection with the viewer. Use this little "trick" to engage the viewer

05a



▲ Hiding parts of the face behind a mask will obscure the expression of its owner, causing the viewer to guess what lies behind it

05b



Ectomorph
Thin and bony

Mesomorph
The energetic type

Endomorph
The fat type

▲ Cultural stereotyping

06

Step 06

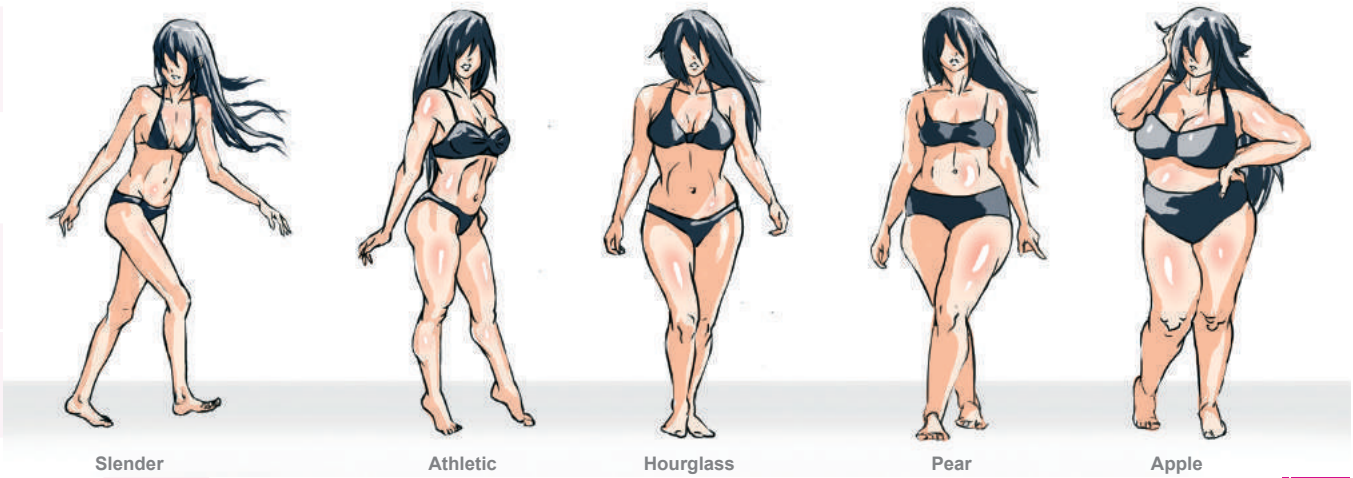
Body types (somatotyping)

Are body types related to special character traits? According to Dr. William Sheldon, a US psychologist who studied the variety of human bodies and temperaments, they are. In the late 1930s he created his "somatotype" system. Having taken pictures of thousands of people for analysis, he discovered three fundamental elements which, when combined together, make up all body types.

Sheldon calls his three somatotypes: ectomorphic, mesomorphic, and endomorphic. Of course we all (men and women) have these components in varying degrees; no one is simply a mesomorph without having the other elements present even a little.

But the easiest way to get an idea of the variety of human physiques is by looking at the three extremes (see also image 06):

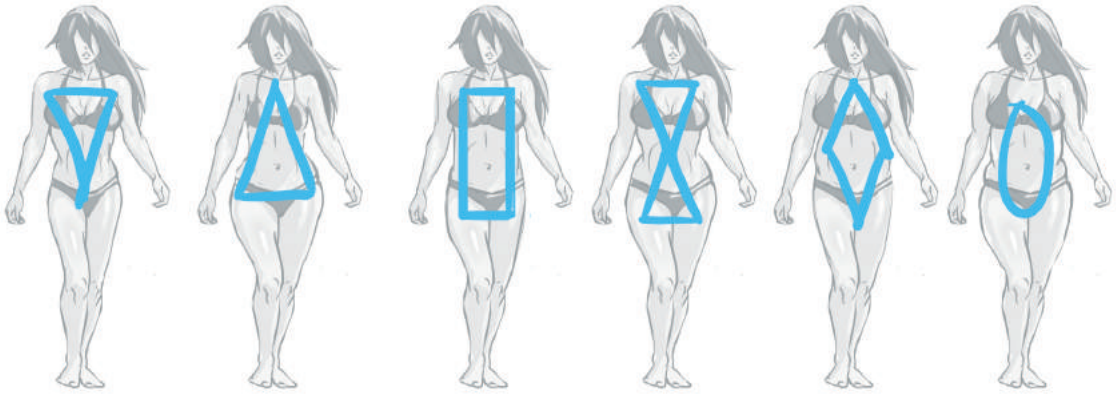
- Ectomorphic: long, thin limbs and thin muscles with low fat storage. They don't build muscle easily.
- Mesomorphic: muscular, strong, with large bones, moderate fat levels, and a solid torso. Predisposed to build muscle easily.
- Endomorphic: wide hips, medium shoulders, with a medium bone structure. They gain weight and store fat easily.



Slender **Athletic** **Hourglass** **Pear** **Apple**

▲ Some generic female body types

07a



▲ More categories for female body types

07b

Certain physiques carry certain cultural stereotypes. For example, mesomorphs (muscular) are perceived as popular and hardworking, whereas endomorphs (fat) are seen as being lazy and slow. Ectomorphs (bony, thin) are stereotyped as being intelligent but fearful, with a strong love of long-distance sports, such as marathons.

Presumptions also include the idea that endomorphs are sociable and easy-going, mesomorphs are adventurous, bold, competitive, aggressive, and energetic, while ectomorphs are introverted, inhibited, and secretive. So the shape of your character can convey what type of person they are.

Step 07

Categories for body shapes

Study the differences in form and shape in our fellow human beings. By closely examining the people around us, we develop a keen eye for the rich variety of proportions that exist. It is like building a visual reservoir to use for our character designs.

In general you will want your female characters to appear more delicate than their male counterparts. Think soft curves instead of hard angles. Females tend to have higher levels of fat to be stored in their body compared to males. This will also affect the body fat distribution: in females the buttocks, hips, and thighs will be more rounded than those of males; males will be more muscular.

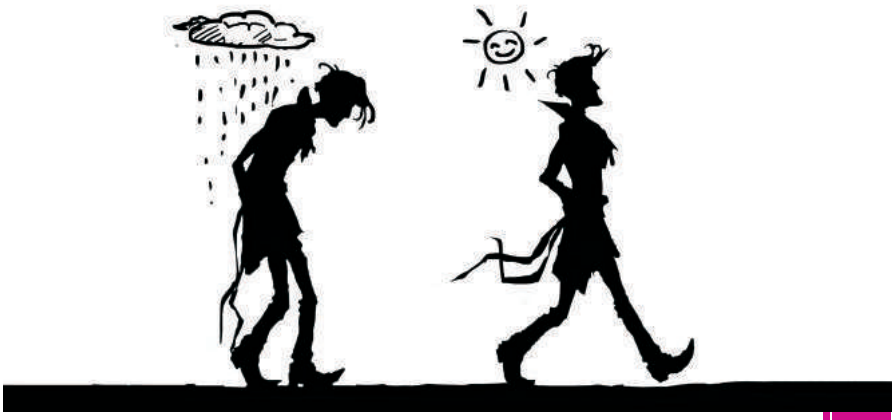
Images 07a and 07b give some examples of different body shapes that can be used to categorize the female body. Obviously there is no fixed rule and there are wide ranges of actual sizes within each shape. With an idea of basic shapes and variations you can create pretty much any type of character you want. Don't draw all your women (and men) the same though! It happens often, that we adapt to one way of doing things and then we get lazy and repeat what we have learned over and over again. Explore the differences and try some variations!

Step 08

Poses, balance, and movement

When drawing a character, it is important to understand that the human form, in essence, is a delicate balancing act. With every step, we set the masses of our body into motion. This can look graceful or not. The various ways in which people walk is a great source of inspiration for character design.

Depending on the energy a character puts into the movement, it can be a presentation of confidence, the head and body held upright, challenging the world, or if the energy is missing it can be a sloppy maneuver, with the character defeated and slouching along, with drooped shoulders and hanging arms. These qualities will show in their silhouettes (see image 08).



08

▲ Explore the effects of different poses by using silhouette drawings. The shape alone can communicate a lot about the inner state and mood of a character

★ PRO TIP

Silhouettes

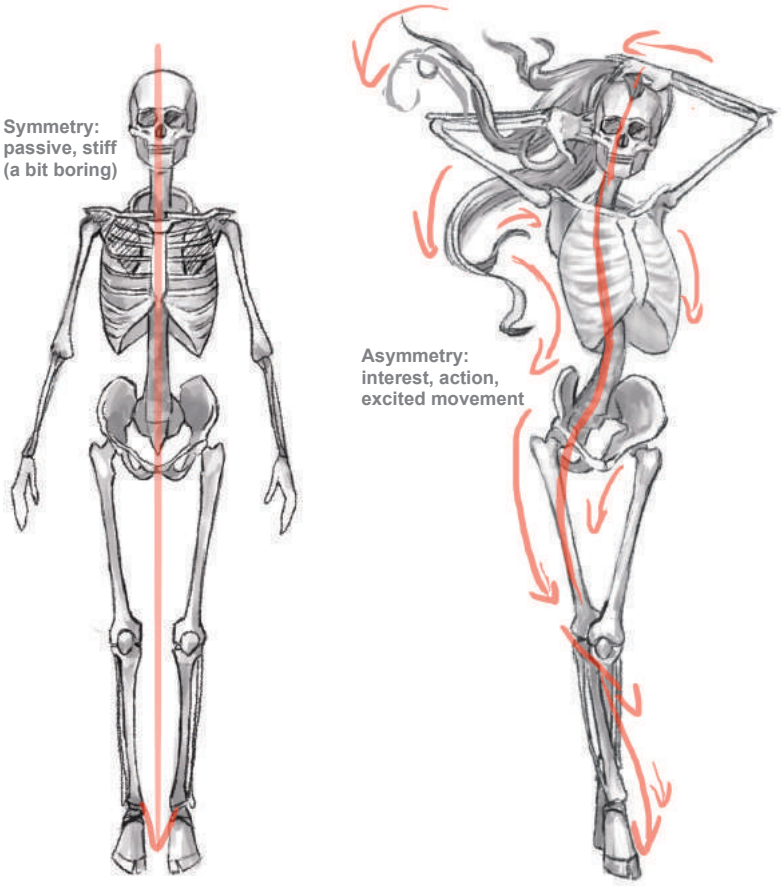
Silhouettes are a great tool to explore the effect of a pose, to check if it really works. Also, they act as a quick way to focus on shapes and designs that make a strong impact on the viewer. A good character will be easily recognizable as a silhouette.

Step 09

Curves, rhythm, and motion

Since character design has a lot to do with producing an emotional response from the viewer, the more life-like a design, the easier it will be to connect with our audience. We need to capture the energy and attitude of an imagined, "living" being. In a drawing we can work with the lines and curves to tell our story and give a sense of movement and excitement to our creation.

In image 09, you can see the effect that symmetry has on a pose. It will look stiff, dead, and a little boring. But, if our model is presented in an asymmetric pose, as seen on the right side, the flowing curves will change that impression instantly.



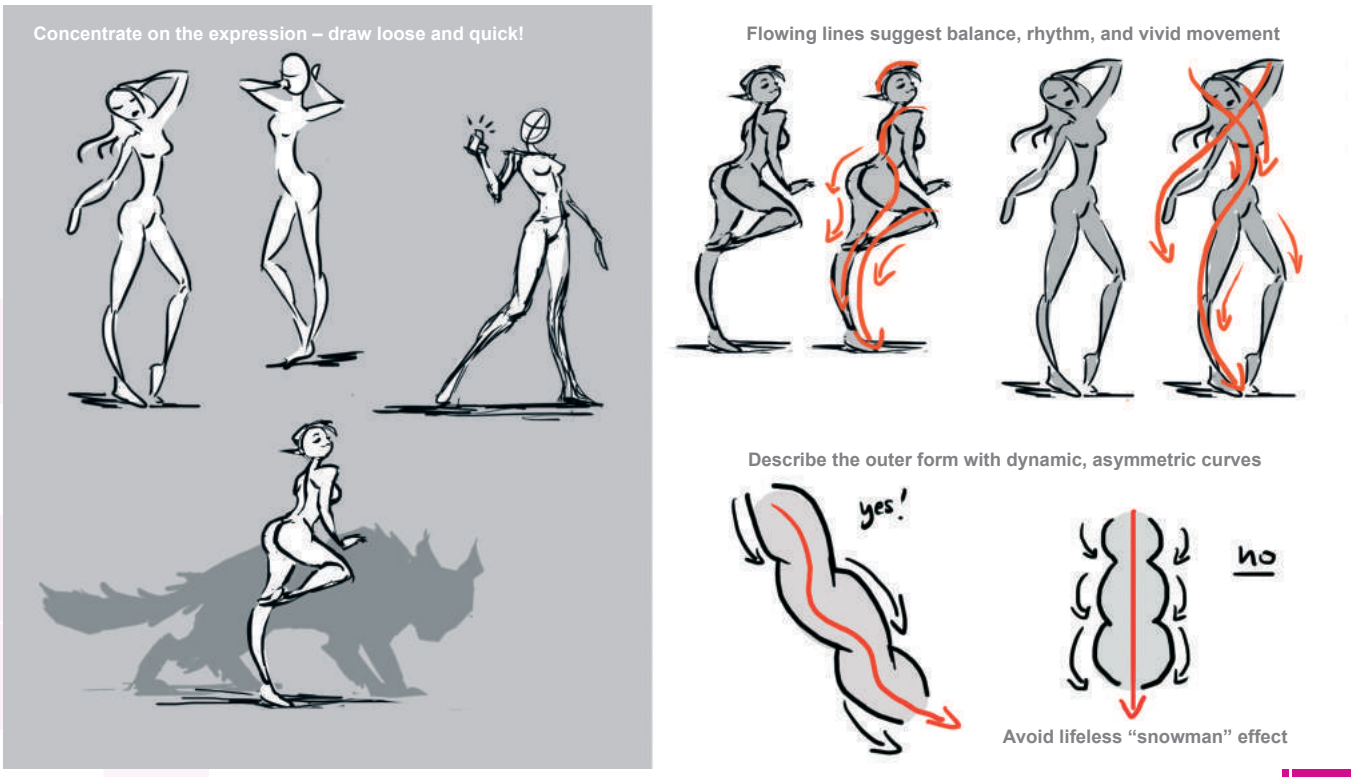
▲ Note the effect of the asymmetric pose: the flowing curves give a sense of motion and balance to the pose. Our skeleton comes to life!

09

Step 10

Body language and gesture drawings

Non-verbal communication plays an important role in human social interaction. Even if we don't speak, we still communicate via our body language. According to some studies about the communication of emotions by Professor Albert Mehrabian, if a person sits in front of us, talking about their feelings, we will react to 55% to body



▲ Initial gesture drawings. The red lines illustrate the rhythmic flow. Use asymmetric curves to indicate movement, direction, and balance!

10

▲ Expressive hand poses will enhance the storytelling aspect of your character **11a**

▲ The hand, holding the delicate scarf of the dress, adds to the seductive pose of the character **11b**

> "Capturing some spark of life in a drawing or painting is where the real magic appears"

language, 38% to tone of voice, and only 7% to spoken words. That means that while we are watching the person in front of us, we will subconsciously "read" his or her real feelings and attitudes, no matter what they say. As artists then, we can use the effects of body language to communicate our story.

To find a nice, lively pose for the character, it is helpful to start with some quick gesture drawings (image 10). These are simple drawings that capture the essence of a pose. Is the character happy or sad? Aggressive or passive? These basic qualities should be apparent in the initial lines, ready to be taken further in design.

Capturing some spark of life in a drawing or painting is where the real magic appears. The more we render and rework an artwork, the more we tend to kill this off. Make sure you keep the lines vivid and loose right from the beginning, so that there will be some energy left shimmering through in the final illustration.

Step 11

Expressive hand gestures

Another way to enhance the look of your character is to pay attention to the expression of the hands. We use our hands when communicating. Some of us do it more than others. There are subtle poses and wildly exaggerated ones. Hands can be used to point at things; they can be clawed in anger, or opened in friendship; they can be inviting, seducing, demanding, or defending.

Sometimes simply looking at a character's hand pose can offer sufficient information to understand what kind of character we have in front of us. There are so many cues we can get from analyzing the way people hold their hands: if someone is biting their nails, for example, the person appears anxious and unsettled. Hand poses can therefore be used with great effect to tell your story (see images 11a and 11b).

▲ To make the audience feel uncomfortable, add alien characteristics that prevent an emotional connection

12a

"As human beings we have the ability to be empathic and the more similar the other being is to us, the easier it will be"

Step 12

Thoughts on alien hybrids

Let's end this chapter with some thoughts on hybrids or alien characters. How far can we go with our creation? How many human characteristics can we replace without losing contact to our audience? As human beings we have the ability to be empathic and the more similar the other being is to us, the easier it will be.

The more alien our counterpart appears, the more suspicious we are (see image 12a), and so when it comes to an emotional contact, we need similarity to connect (see image 12b). We can relate to hybrids as they are fully capable of emoting as human beings do – take a look at the one in image 12c for example. Play around with this balance to see what you can achieve!

▲ This guy seems to be rather unlikable, but has relatable human characteristics

12b

▲ Hybrids are great fun to paint. To get inspiration, simply look at the animal world and combine elements to create a new design 12c