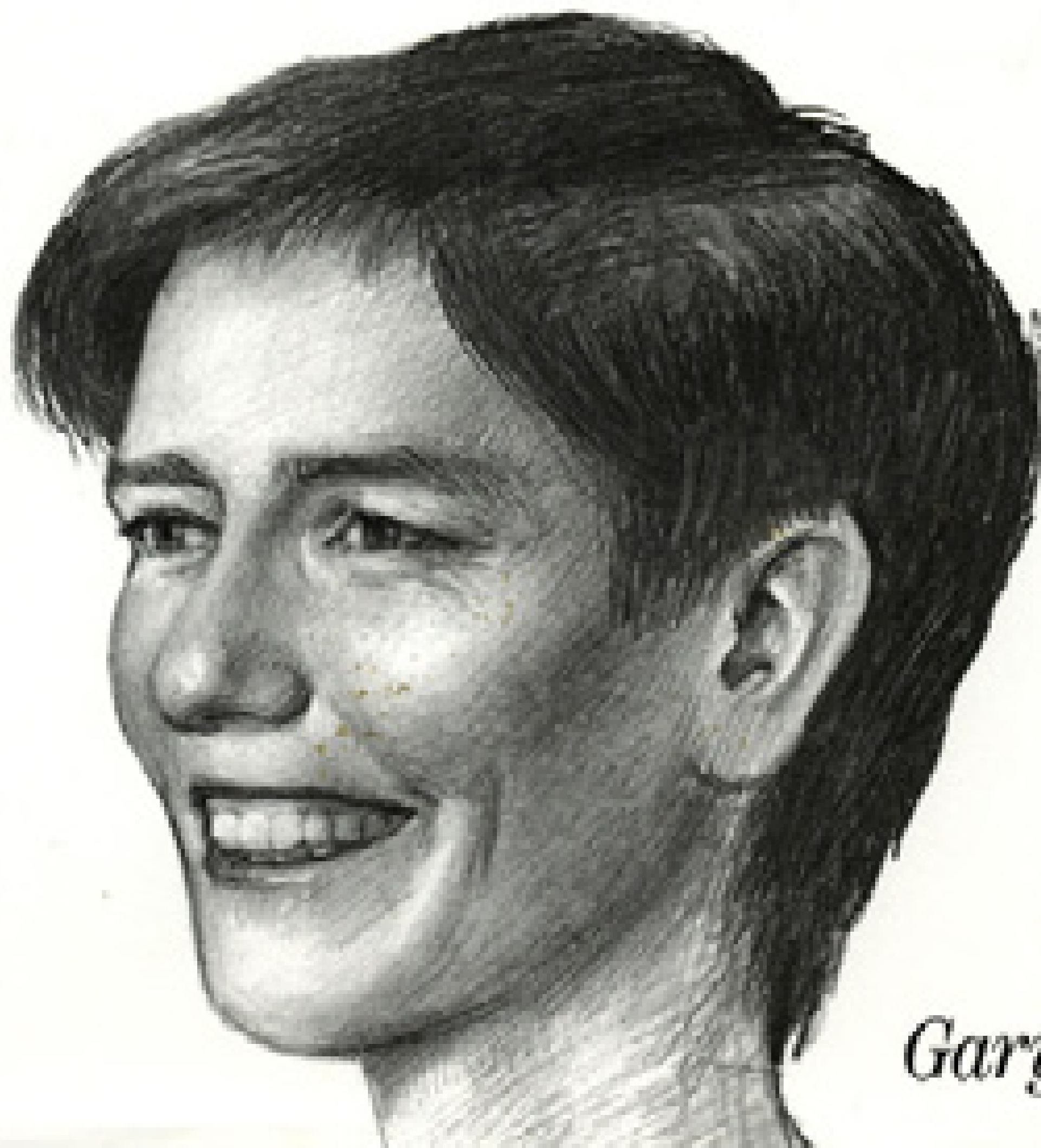


*The Artist's
Complete
Guide to*

FACE AND EXPRESSION

Gary Faigin



THE SIX BASIC FACIAL EXPRESSIONS



SADNESS



ANGER



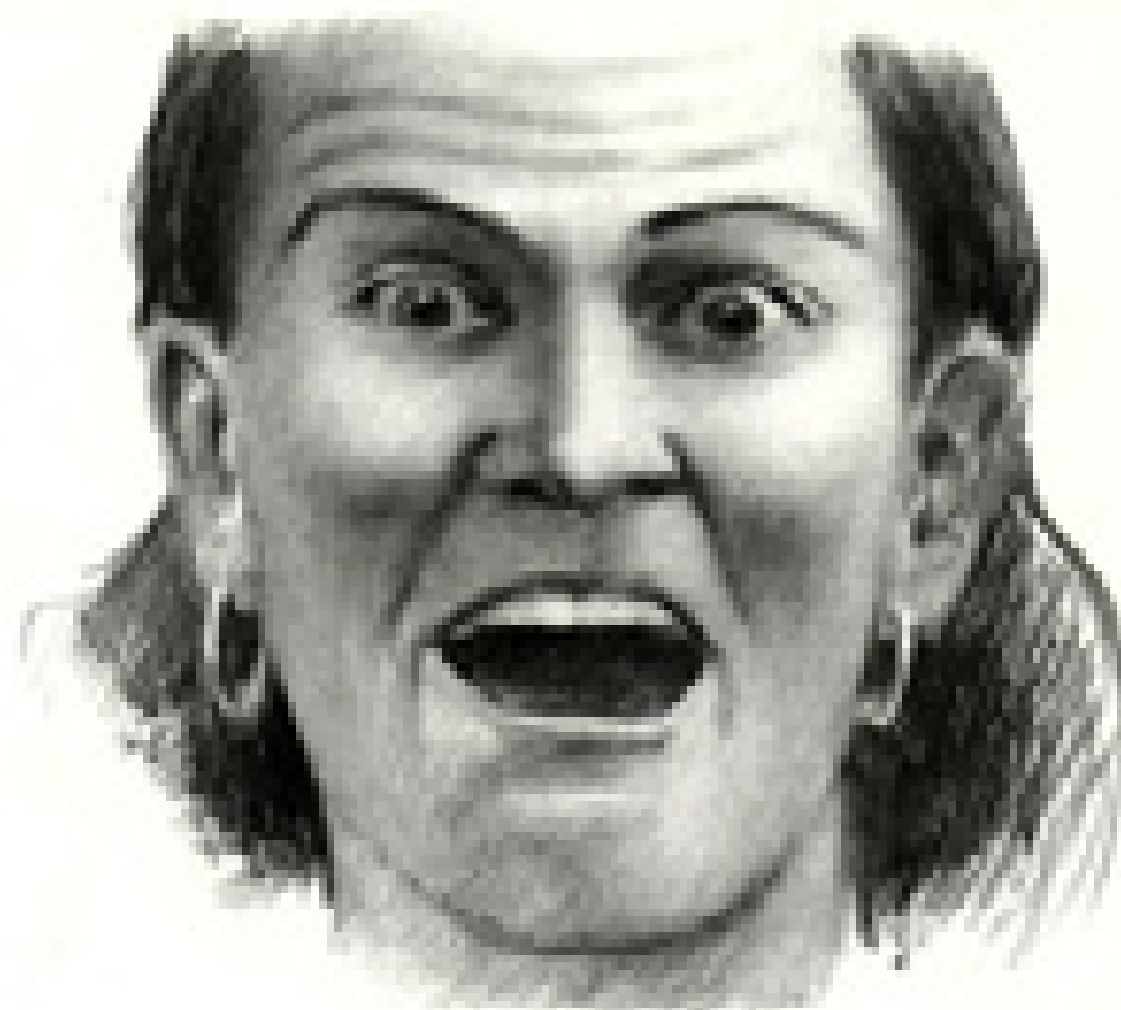
JOY



FEAR

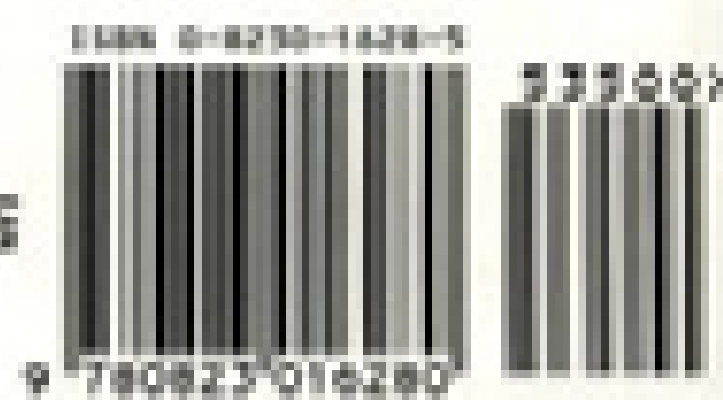


DISGUST



SURPRISE

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The Artist's Complete Guide to
**FACIAL
EXPRESSION**

Gary Faigin

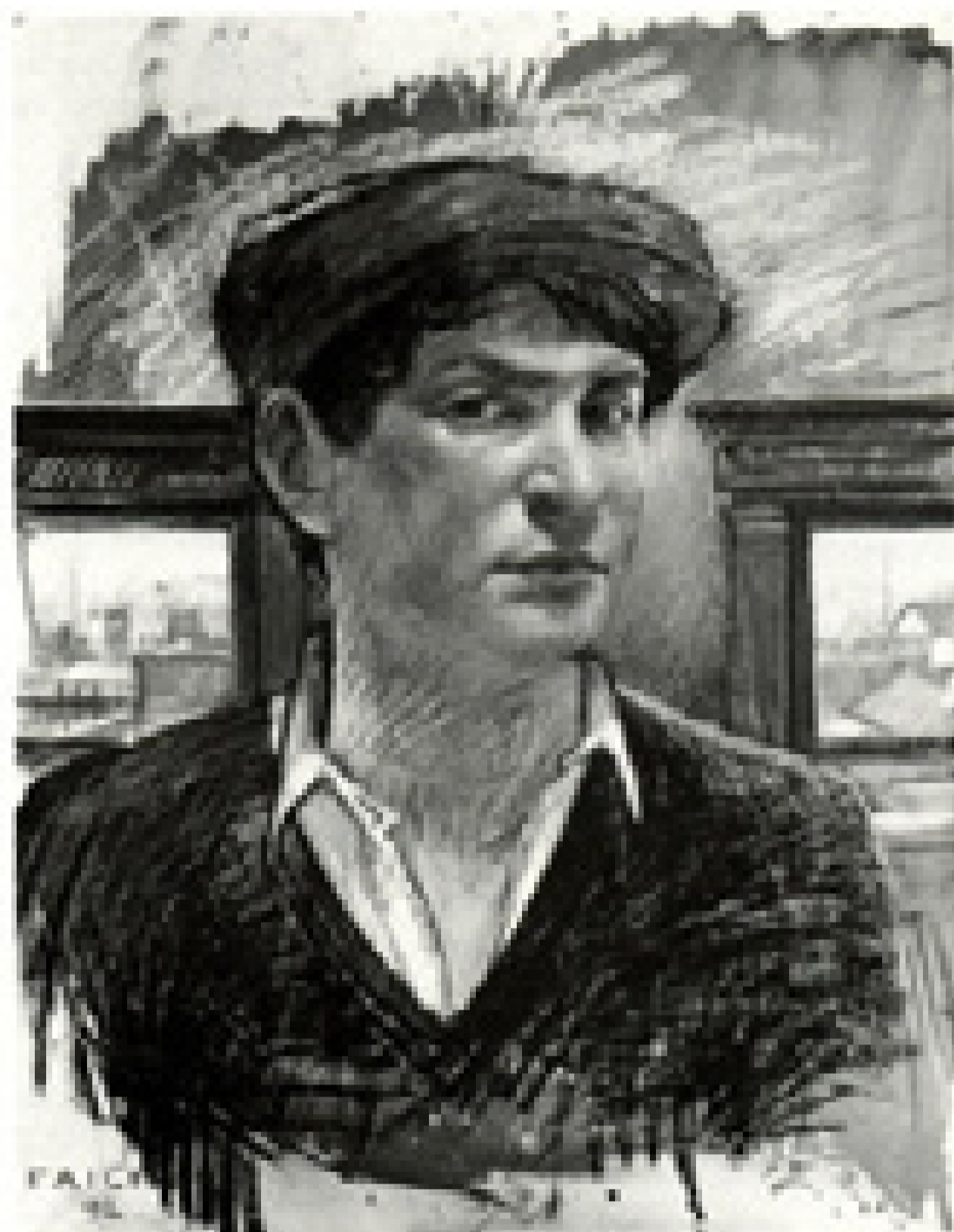
This comprehensive visual index to the subtleties of emotion conveyed by facial expression is the only book of its kind. *The Artist's Complete Guide to Facial Expression* carefully explains and illustrates the role of the muscles of expression and the effects of these muscles on the face. The images presented, from the author's own work and from photographic and artistic sources, focus on the action of muscles in three key areas of the face—the forehead and brows, the eyes, and the mouth and chin.

Gary Faigin shows how the successful portrayal of the face is dependent on an understanding of the deep forms of head and skull. Faigin goes on to illustrate the expressive results of individual facial muscles. This structural information is then drawn together in a brilliant section, which is devoted to depicting the six basic human expressions—sadness, anger, joy, fear, disgust, and surprise. Each emotion is portrayed in steadily increasing intensity, from subtle signs of the emotion to full-blown expressions. Detailed renderings are supplemented by illustrations from such other sources as news photos, cartoons, movie posters, and art masterworks—complex, finished works that show the basic emotional patterns in use. An appendix features examples of each nuance of the basic expressions, including similar facial states of purely physical origin, such as yawning or the face of pain.

The Artist's Complete Guide to Facial Expression is a major contribution to the literature of art instruction. This is a unique work, highly intelligent yet lively and entertaining, on a subject crucial to the development of every artist.

288 pages, 8 1/4 x 11 (21 x 28 cm),
400 black-and-white illustrations, Index.

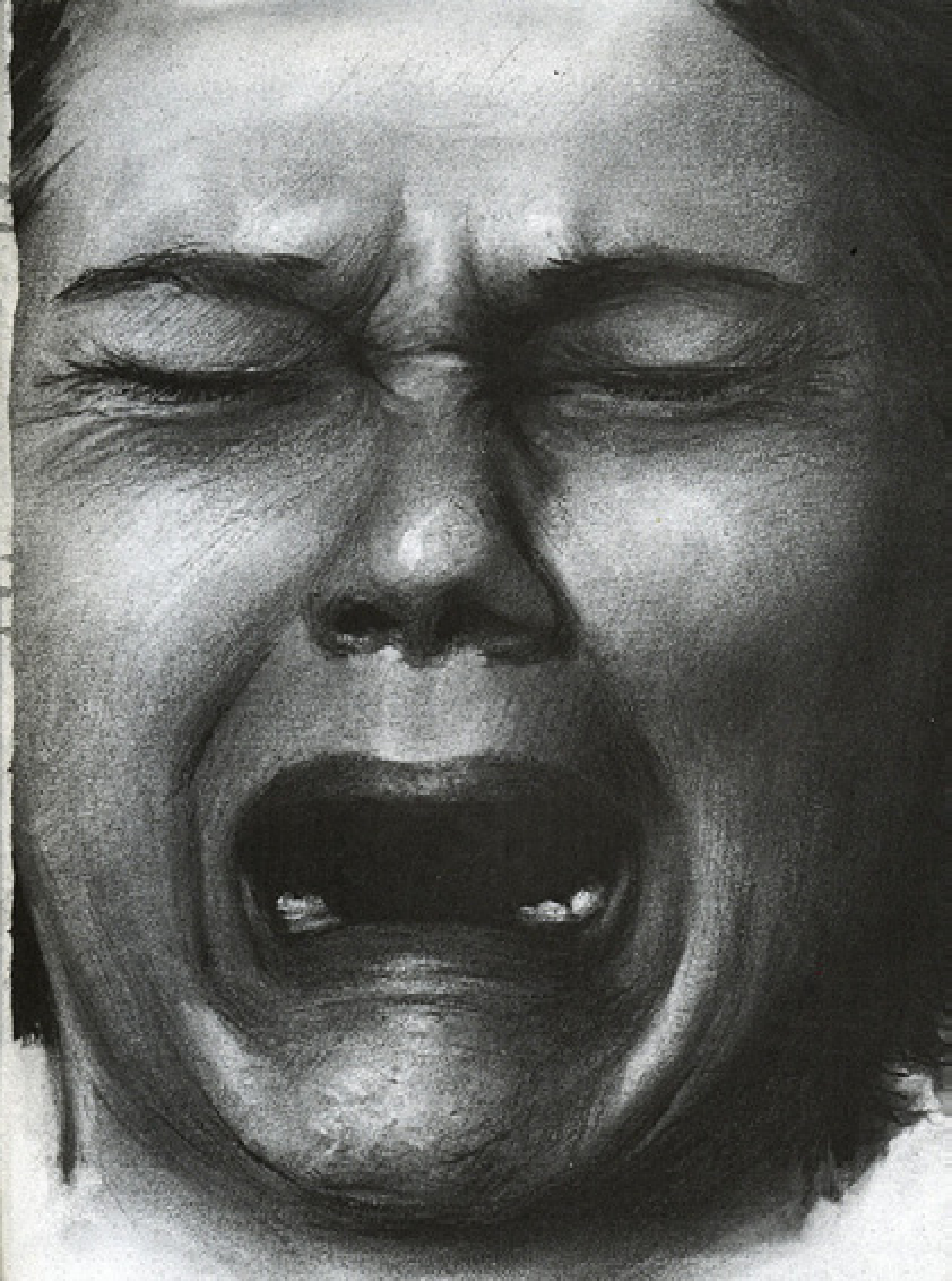
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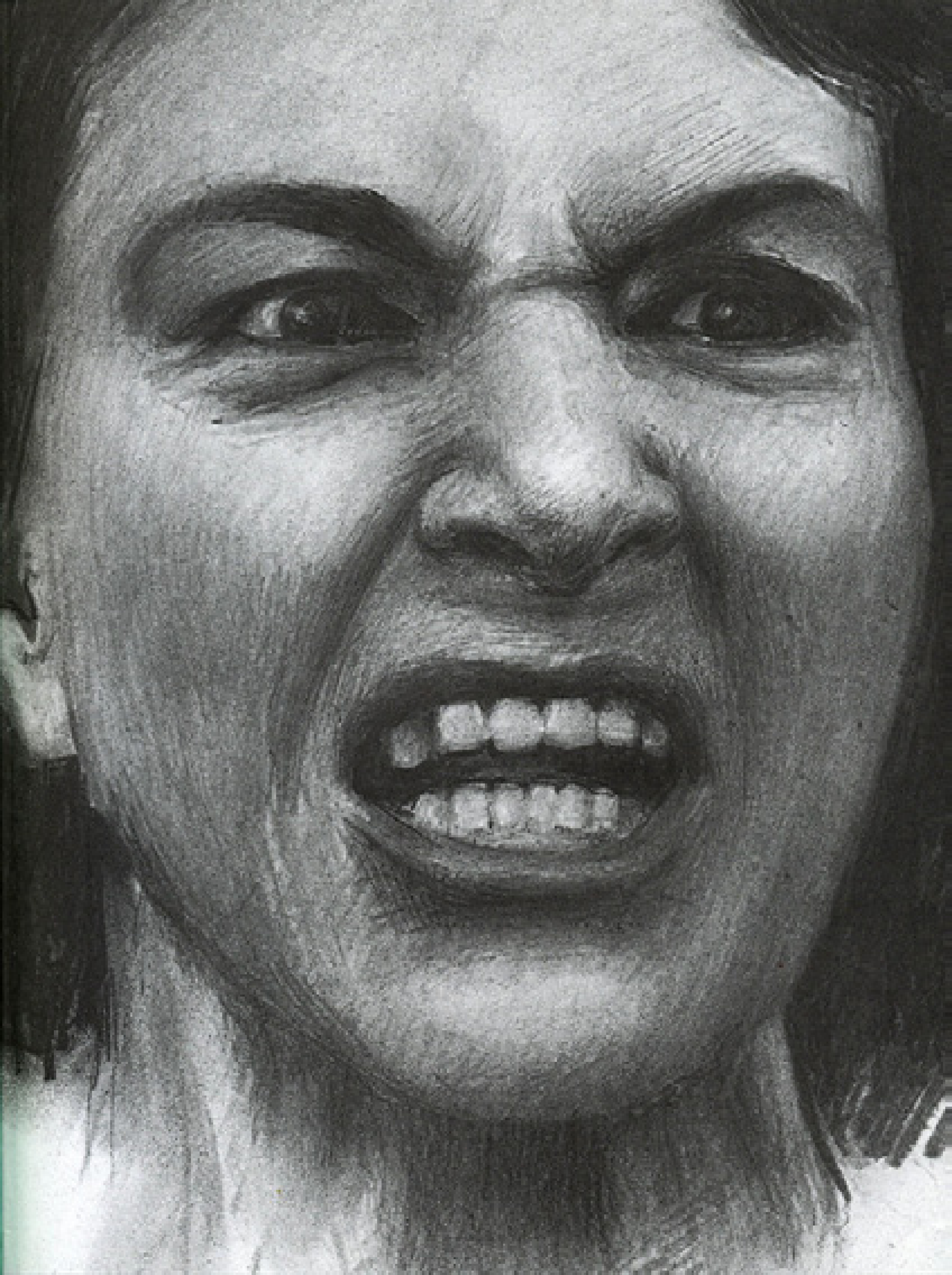


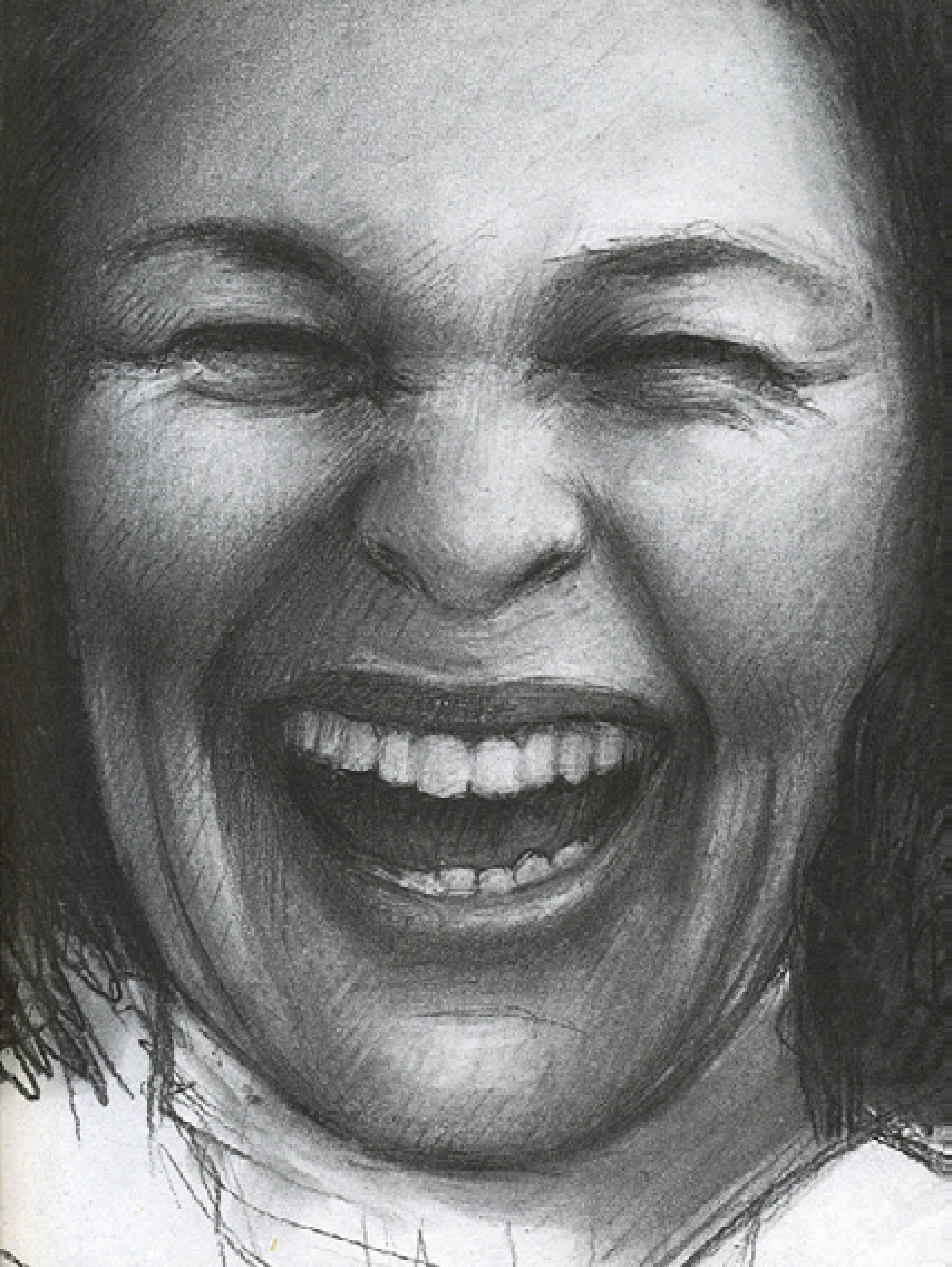
Gary Faigin is a painter and printmaker whose work has been exhibited in one-man and group shows around the country. He was trained at the Art Students League and the Ecole des Beaux Arts de Paris. He currently lectures at the Art Students League of New York, and has served on the faculties of the National Academy School of Design School of Fine Art and the Parsons School of Design. His own school, the Academy of Realist Art, offers classes in Santa Fe, Seattle, and New York City. He lives in Seattle and Santa Fe with his wife, architect and designer, Pamela Belyea.

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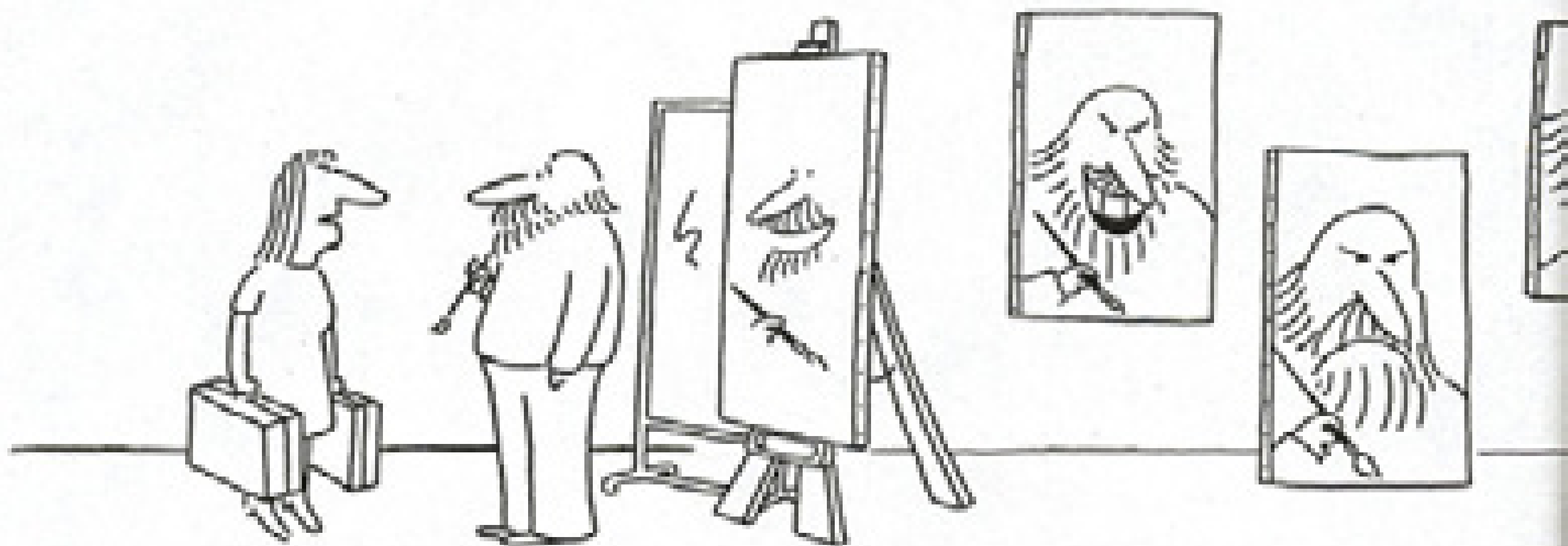
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INTRODUCTION



"Charles, I've had it with you and your goddam moods."

There is no landscape that we know as well as the human face. The twenty-five-odd square inches containing the features is the most intimately scrutinized piece of territory in existence, examined constantly, and carefully, with far more than an intellectual interest. Every detail of the nose, eyes, and mouth, every regularity in proportion, every variation from one individual to the next, are matters about which we are all authorities.

We've come to know the face so well because it's so important to us; in fact, it's the center of our entire emotional life. From birth to death, the face links us to friends, to family, to everyone meaningful to us. Few things are capable of moving us as deeply as the face of a loved one; nothing interests us as much as looking at that same face, in all its moods, in its evolution over time.

THE FACIAL EXPRESSIONS

No wonder, then, that the little movements that alter the look of the features—facial expressions—can

have such great significance. The slightest suggestion of a smile can start a conversation between strangers; the slightest suggestion of a frown can start an argument between friends.

When we look closely at expressions like smiles and frowns, we realize how little on the face has to change for us to recognize an altered mood. When we try to draw an expression, we then realize that there is a gap between the recognition of an expression and the recreation of one.

The actual physical threshold that must be crossed for an expression to be perceived can be very slight. For example, an audience would know instantly if a speaker became sad, drowsy, or annoyed; audience members too distant to distinguish a two-inch *P* from a two-inch *F* would have no problem noting a quarter-inch shift in the speaker's eyebrows and interpreting its expressive meaning correctly.

An Innate Skill

Our ability to read facial expressions isn't something we had to learn. It's

part of our instinctive equipment, like our aversion to pain or our feeling of warmth toward creatures with lots of fur and big eyes. Our mastery of expression is so deep-rooted that it's possible to lose the ability to tell one face from another yet still be able to recognize a smile from a frown. Researchers studying stroke victims discovered a group of individuals who could recognize various expressions even when they couldn't identify their own faces in a mirror. There's clearly something fundamental about a skill that can persist despite such severe brain damage.

Just as innate as our capability to distinguish the facial expressions of others is the reflex by which expressions appear in the first place. We don't learn to smile or cry by watching adults do it. Facial expressions arise powerfully and involuntarily like sneezes, or shivers. A baby born without sight will laugh and cry like any other baby. In fact, it's probable that babies have laughed and cried in a similar manner as far back as there have been human babies. Most experts believe that the fundamental facial expressions—fear,



Drawing by C. Bennett. © 1979 The New Yorker Magazine, Inc.

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joy, sadness, surprise, disgust, and anger—are common to all human societies and have remained unchanged for thousands of years.

FACIAL EXPRESSION AND THE ARTIST

Facial expression has long attracted the attention of artists. Leon Battista Alberti wrote in his famous handbook for artists, *On Painting* (1435), that a painting “will move the soul of the beholder when each man painted there clearly shows the movements of his own soul. . . . we weep with the weeping, laugh with the laughing, and grieve with grieving.” He advised artists to carefully study the facial expressions, remarking, “who would ever believe who has not tried it how difficult it is to attempt to paint a laughing face, only to have it elude you so you make it more weeping than happy?”

Alberti’s comment nicely summarizes the two most important facts about the relationship of art and expression: (1) facial expression can have a decisive impact on the effect of a

picture; (2) depicting precisely the effect desired can be maddeningly difficult. These facts are related in two ways. First, it is a short step from recognizing the face’s powerful grip on our consciousnesses and the primal nature of expressions to recognizing that the same power applies to depictions of the face. By moving us to identify with the emotions of people in paintings, art can gain in power and impact. Second, since depictions of expressions can be so powerful and subtle, they can, by themselves, make or break a picture.

There are many stories about artists struggling to perfect a particular laugh or grimace. Leonardo Da Vinci is said to have worked for years on the smile of his *Mona Lisa*, employing the services of jugglers, musicians, and clowns in an attempt to evoke from his subject that certain smile. While working on his sculpture *Martyrdom of Saint Lawrence*, Bernini is reported to have burned his own leg with a candle in order to study the expression of pain. Ilya Repin agonized over the countenance of the returning exile of

his painting *They Did Not Expect Him*, changing it many times—partly in response to published criticisms—because he felt that the whole meaning of the picture depended on it.

Memorable Images

The effort can be worth it: certain masterpieces revolve around a particular vivid expression. It’s no coincidence that nearly every acknowledged master of Western art was a master of facial expression. Included in this book are major paintings by Velazquez, Rembrandt, Leonardo, Rubens, and Caravaggio; in each, a vivid expression takes center stage. Alberti’s advice, that an artist should show the soul to arouse the viewer, is borne out in each case; our reaction is the exercise in empathy that he suggested.

The manner in which artists have depicted facial expression has also depended, to some extent, on the period in which they were working. Artists of the late eighteenth century, for example, were more likely to portray emotions in their paintings by the use of obvious, theatrical gestures—what



Like actors in a B movie, the characters in the neoclassical David's *Death of Socrates* overtly demonstrate their anguish over the philosopher's impending suicide. Melodramatic gestures and conspicuous poses (Socrates points heavenward to indicate the immortality of his soul, sorrowful disciples slump against walls or cover their heads with their hands) dispense with all subtlety. The face plays a minor role.

The treatment of emotion in this late-nineteenth-century realist painting is opposite to that of the neoclassicists. Rather than broad, unmistakable gestures, everything is held in; mood depends on nuance and detail. The daughter's stare, the father's scowl, and the mother's expression reinforce the sense of isolation and distress.



actors call *indicating*—than by focusing on subtle movements of the face. In paintings by the neoclassical artist David, for example, despairing people fling their arms up in the air or slump against walls in a manner that seems terribly exaggerated and artificial to the modern eye. One would have seen much the same thing in the theater of David's time.

Painters working in the late nineteenth century, particularly between 1860 and 1890, placed a higher priority on careful observation from life. Their artistic climate was shaped by the realist movement. Gone were paintings of nymphs and the lives of classical heroes—in their place were scenes of farmers, laborers, and the unhappy bourgeoisie. In the plays of Chekhov and Ibsen, in the novels of Tolstoy and Zola, and in the paintings of Repin and Eakins, there was a similar effort to hold up a faithful mirror to the contemporary world. As actors of the time brought to the stage a new level of craftsmanship and emotional conviction, painters succeeded in portraying the most compelling nuances of facial expressions and gesture. No artists before or since have painted pictures that were so psychologically true in their depictions of the face.

The Twentieth Century

In our century, there's been a very different attitude towards the value of visual truth. Many felt that painters had exhausted the worth of pursuing the "merely visible." Artists like Picasso, Cezanne, and Kandinsky strove to create an art that was independent of nature, in which color, form, and expression were valued simply for their own sake. Painting was conceived of as a universal language, like music, capable of moving our emotions without any reference to recognizable elements. Given this ideal, it's no wonder that painting in the twentieth century has seen little in the way of continuation of the nineteenth-century realists' work.

The work of photojournalists, however, does represent a link with the realist painters of the past (whose drawings often appeared in nineteenth-century newspapers).



Just practicing. Rembrandt's fondness for self-portraiture arose early in his career. These etchings of the youthful Rembrandt mugging before the mirror were undoubtedly meant as exercises in rendering various expressions. Anyone who has ever etched a plate can appreciate the task he set himself; expressions are not usually held on the face more than an instant, and the effort to maintain the poses of fear (A), laughter (B), anger (C), and the slight smile (D) is in itself impressive.

News photos have had an enormous impact on the modern consciousness. We can immediately bring to mind the photojournalist's images such as Lee Harvey Oswald's scream of pain (or his guard's scowl) or crying children fleeing their burning village in Vietnam. Unquestionably, these too are images where people "clearly show the movement of their own souls." These photos are direct successors to the "journalistic" paintings of the nineteenth-century realists. (Ironically, the advent of newspaper photography was part of the reason realist painting fell into decline.)

Painters will always be passionately interested in the face and its moods in a way that transcends periodic fluctuations in style. The power of the face will always inspire artists to explore its expressive possibilities, and pictures that capture emotions in a striking way will always be notable. Moments of strong emotion are rare in the humdrum of daily life, and we're instinctively drawn to images of the face where the "movements of the soul" are clear.

Non-Western Traditions

Artists from nearly every period and culture have recorded the effects of emotion on the face. This book includes the jade head of a crying baby from pre-Columbian Mexico; a wooden, snarling-faced war helmet from the Pacific Northwest; scowling emperors carved in stone from ancient Rome; and theater masks from Japan and North Africa displaying a range of emotions from fear to laughter. Human expressions also appear on the faces of animals, demons, and gods; looking at the art of some civilizations, it is harder to find a face in repose than one contorted by some expression.

HOW ARTISTS HAVE STUDIED EXPRESSION

For artists wishing to inform themselves on the subject of facial expression, there have always been three options: (1) looking in a mirror; (2) looking at other pictures; (3) direct observation.

Direct observation is clearly the



Rembrandt may have relied on quick notations from life for his etchings and paintings, but these drawings represent an unusually clear record of his procedures. The sketch of a screaming, struggling little boy hauled off by his mother is a masterpiece of quick observation. Note the flying shoe, the admonishing gesture of the mother, her scowl.

most difficult option. We don't often see people in the grip of a primal emotion, and even when we do, there are obstacles: expressions don't last very long; they are frequently of the utmost subtlety even when they do last; and we usually feel too inhibited or involved to look on objectively when someone else is suffering anguish or pain.

Some artists have nonetheless persisted in working from direct observation. Rembrandt Van Rijn's sketch of a screaming child, clearly made from life, became the basis for the expression in (and may have inspired) his painting *Ganymede*. Perhaps Rembrandt was aware of Leonardo's advice: "Try to be a calm spectator of how people laugh and weep, hate and love, blanch from horror and cry out in pain."

Rembrandt also (like most artists) studied his facial expressions at the mirror. Many of his early etched self-portraits have a distinctive, dramatic expression. These lively pictures were probably meant as a sort of exercise, unrelated to any specific work. Like a musician studying scales, Rembrandt seems to have been preparing himself for the demands of his future art. In a similar spirit, the French Academy used to require all students to portray a specified emotion in an "expression competition," feeling that it was an important skill that students needed to master.

Traditionally, artists have referred to the work of other artists to learn to portray emotion. For example, students once dutifully copied the anguished grief-stricken face of the classical sculpture *Laocöon*. In the Middle Ages, painters were expected to base their renderings on studio books of standardized drawings. Yet the expressions captured in the sculptures of the Middle Ages seem taken directly from life. One wonders if medieval sculptors took more liberties with their research than painters of the same time.

About This Book

Curiously, there have been very few books on the subject of facial expression for the artist. To my knowledge, the last one was Sir Charles Bell's *Essays on the Anatomy of Expression in Painting*, published in 1806, and it wasn't a terribly good book in the first place. Many more recent drawing books have included short sections on expression without shedding much useful light on the matter. In fact, artists familiar with such sources have generally had the good sense to prefer their own judgment and observations.

A great amount of useful information about facial expressions has recently been published by psychologists. Their research, especially that of Paul Ekman, the leading authority on the subject, has been a major source of this book. This book also borrows heavily from the work of modern photojournalists, whose ability to be at the right place at this right time and to point cameras in the faces of people no matter what the circumstances, have done artists a great service.

THE HEAD IN ACTION

This is not primarily a book on how to draw the head—there are plenty of books that do that. It's a book about depicting the actions of the head. It focuses on the facial expression of emotion, but other actions are illustrated, such as the sideways gaze, the open mouth, the raised brow, which add to the liveliness of a face.

The gist of this book is in the illustrations and their accompanying captions. Anyone who reads through the picture pages will have covered most of the material. The text itself offers slightly more detail and discussions of certain theoretical issues.

Part of this book is devoted to the anatomical basis of the expressions. The study of anatomy, it has been said, increases the sensitivity of the artist's eyes, making forms clearer because they are more clearly understood. The expressions offer the eye a potentially confusing landscape of wrinkles, bumps, and altered features. Under-



Facial expression for artists. Few reference books have included credible images of facial expression. These excerpts from the Diderot Encyclopedia, illustrating (clockwise) reverence (A), discomfort (B), sadness (C), and anger (D), strike the modern eye as excessive and unnatural.



Anatomy and Drawing by Victor Perard includes this page on facial expression. If you cover the captions, very few of the expressions are easily recognizable. Expressions like surprise, laughter, and anger—when genuine—should need no label. Expressions of doubt, supplication, reverie, and disapproval, however, are vague emotional states that have no distinct identity on the face.

standing what creates these forms makes it easier to see the expressions, and it also makes it easier to see the simple underlying pattern that is the true basis of our recognition of a particular expression. Nearly every facial muscle, for example, has a characteristic "signature wrinkle." Once recognized, this characteristic will be seen on nearly every face when the same expression is in progress.

We discuss first the deep bony forms, then the muscles that lie atop them. In the final section, the facial expressions are described in detail, referring back to the individual muscles involved in each expression. The reader is encouraged to regularly examine what's discussed on his or her own face. This book is really meant to become a sort of guided tour to the face.

HOW THE DRAWINGS WERE MADE

My drawings were primarily done from my own photographs. In section 3, however, a number of the drawings of the expressions are based on photographs from newspapers and magazines. My decision to use newspaper photographs was based on an important point: some expressions do not seem to be convincing unless they are completely spontaneous.

At first, I had taken photographs of actors portraying various expressions, but many of these were found to be unconvincing. When I showed people newspaper photographs of angry, frightened, or surprised people who had been in situations where these feelings naturally arose, I got a much stronger response. This was true even though I made sure to remove any clues as to what else was going on in the picture. Since my methods were hardly scientific, it is difficult to draw conclusions from the results. But it seems clear that we can usually tell the difference between a spontaneous expression and a posed one. The artist is well advised to get a second, or even a third, opinion if working with a face where the expression is at all doubtful.

In the end, about half of the expression drawings were based on photographs from spontaneous situations. I



A



B



C



D

The inquiring camera. Hundreds of photos were taken in preparation for this book. The best were used as the basis for many of my expression drawings. Sessions with actors proved useful, but many expressions were judged unusable because they appeared too extreme (**A**) or too ambiguous (**B**). Besides working with actors individually, unscripted scenarios were staged in an attempt to elicit a particular expression. Several actors ganged up on the figure in the dark shirt (**C**), but the expression of fear did not materialize. At (**D**), however, it did.



There were many times when I needed extra detail on a part of a face I was drawing, and taking a closeup of my own face proved another helpful way to do research.

only used photographs that I had shown to a large number of people and for which I had gotten similar responses. Many of those photos had serious technical shortcomings in terms of clarity or lighting. I often studied my own features in similar positions to resolve particular details. I made a careful sketch from my own face, and then I transposed it to the face of someone else.

WHY THE FOCUS ON THE FACE

Posture and gesture (*body language*) can have a decisive effect on the expression of emotion. The back view of an individual slumped over with head in hands vividly shows that person's feelings. In fact, some emotions are inseparable from particular gestures: anger with a lunging forward of the body; sorrow with slumping; horror with an instinctive raising of hands to the face.

The face alone, however, can communicate the full range of human emotion. By just focusing on the face, we can learn many valuable and important things that are no less true because they are also part of a larger context. Think of the face as being like the key solo instrument in a symphony orchestra. In a concerto, the soloist can carry the melody, as can the full orchestra along with the soloist. Likewise, the face can act alone to communicate sadness, fear, or pleasure, but more often its message is reinforced by the action of the rest of the body.

THE INFLUENCE OF CONTEXT

Context, or setting, will also influence the emotional message we get from someone in a picture. If what's going on in picture leads us to expect to see a particular expression, we will seize on the least clue to convince ourselves that that expression exists. For example, imagine a portrait of a man with his eyes slightly widened. We might draw any number of conclusions about his emotional state (including the conclusion that he's not feeling anything in particular). If this same man, however, is painted throwing open the bedroom door on his wife and her lover, we're certain to see a great deal more in exactly the same expression. We're

likely to see shock, anger or both, but we will certainly see something pronounced based on what we expect to see.

The faces most susceptible to being influenced by context are those with ambiguous or very slight expressions. The less we see going on in a face, the easier it is to read our own message onto it. Our perception of an up-

roarious laugh or a furious shout, however, is little influenced by the surroundings.

A NOTE ABOUT THE MUSCLES

If you want to know which facial muscles do what, you won't find a clear answer in the standard reference books, like Gray's Anatomy. Five hun-

dred years after Leonardo's pioneering studies, the subject of facial expression still hasn't been entirely sorted out by the experts. Though psychologists have been busy updating our knowledge of the face, anatomists have not. There are major disagreements in the anatomy books on a number of key issues. For example, no two books seem to agree on exactly which muscles make us smile. While some books insist that the *risorius* (Latin for "to laugh") is crucial to the action, others assert that nothing could be further from the truth. Some even dispute the very existence of the muscle, saying that it's a no-show on many faces, and of little importance on others, and it's really another muscle—the *platysma*—that does the work.

Several other facial muscles are in a similar position of having their very existence in doubt. One doesn't encounter this problem studying the anatomy of the arm or the calf. The fact is that the muscles of the face are so minute, so confusingly deployed under the surface, and of so little interest to researchers (not being crucial in disease, sports, or disabling injuries) that some fundamental questions are still unresolved.

This book represents an attempt to compromise between being too vague and being too certain and specific. The drawings show the surface appearances as they are; but exactly what's going on under the surface is still something of a mystery. Few artists will find this a serious handicap; still, it would be nice to know what really makes us smile.

How to Use This Book

This book is meant to be read with a mirror close at hand. Many, if not all of the expressions can be fairly easily posed, though some individuals are more gifted at this than others. The position of the eyebrows in sadness, for example, is very easy for some people to duplicate; others can only do it if they really are sad. But everyone is able to produce the frown or the sneer. It's even more useful to get someone else to sneer or frown and to study that face carefully. It's also helpful to use your sense of touch to trace the three-

Our perception of facial expression is enormously influenced by what we expect to see. A caption can produce an opposing context: a sob can become a smile. The faces most susceptible to being influenced by context are those with ambiguous or very slight expressions.



This is a drawing of a woman who has just learned of the death of a close relative.



This is a drawing of a woman at a reunion with a relative she'd thought dead for many years. With this caption, we see her face very differently than with the more tragic caption (in fact, this last caption is true).

dimensional forms on your face when posing the expressions.

Every opportunity should be taken to observe these expressions from life. Front-row seats at the theater are perfect spots for expression research, and playgrounds can also be great places—children don't tend to hold back when they're angry or distressed or mind being looked at. I also recommend lingering at bus stations during rush hours to watch for commuters late for their buses and spying on tables full of tipsy people in cafés. If you discreetly observe travelers saying their good-byes at airports, you may well spot the charming expression in which sadness mingles with a smile. And unexpected opportunities arise: I can still vividly bring to mind the distressed look on the brow of the poor woman I saw once being arrested for shoplifting. Just remember—it's not polite to stare! (though dark glasses can help).

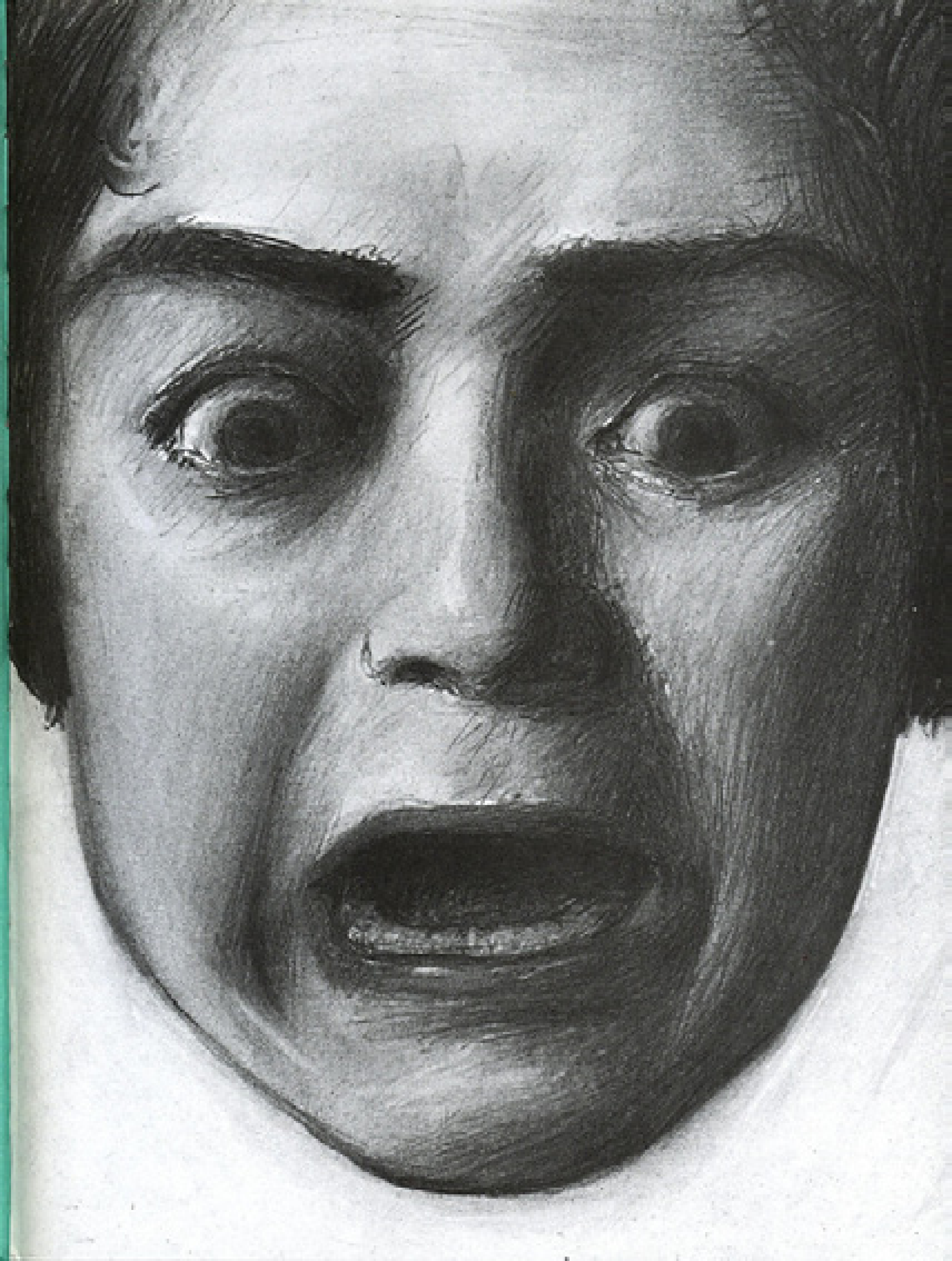
Movies are useful, and videotapes particularly so, as an interesting face can be watched more than once or even frozen as a still frame. The daily papers and news magazines are also scanned a bit differently when you're indulging your curiosity about the face—a clip file can be an important tool.

Finally, have fun with a pencil. The easiest way to begin trying out these expressions is by drawing simple, cartoon-like faces like those in the appendix. Even such rudimentary faces can be quite expressive. Next, you might want to take an existing surplus drawing or painting of a face and experiment with the effects of various alterations in the look of the eyebrows or the mouth. Copying pictures of expressions—either photographs or works of art—is also useful.

Ultimately, the value of this book may be in hinting just how a slight movement here or there can add life to a portrait and help bring a personality to life. It may also help someone trying to remove an unwanted expression. My fondest hope, however, is that this book will prove helpful to those artists who have ambitions, beyond those of most of their contemporaries, to create works of art in which the human drama—and the "world of visual appearances"—plays a central role.



If at first you don't succeed, try a slightly different version. Merely by slightly changing the position of the eyebrows, Courbet gave the top portrait of Jo, Whistler's mistress, an undertone the one above completely lacks. The slightly bent eyebrow (and to a lesser extent, the look of the eye and brow) suggests sadness or worry. Instead of a pretty young woman admiring herself in a mirror, we see the painting as a meditation on the fleeting nature of beauty, or simply a study of melancholy. Many artists might be curious about the effect such a change might have on their painting, but few would be curious enough to paint a complete alternate version.





First things first. Features—and any expression they reveal—are the last things developed in a drawing of the head. The most difficult and important stage is actually the first, defining the overall shape of the head. In the second stage the head is broken down into lit and shadowed planes, building the sense of three dimensions. Finally, the features are rendered—a much easier job if the first two stages are done right.

LOOKING AT THE SKULL

The skull is the most important of the deep forms that give shape to the face. Differences between one person and another are largely a result of differences in the skull. The skull determines the shape of our head and the location of our features. Halloween and horror films aside, it is a beautiful and fascinating structure.

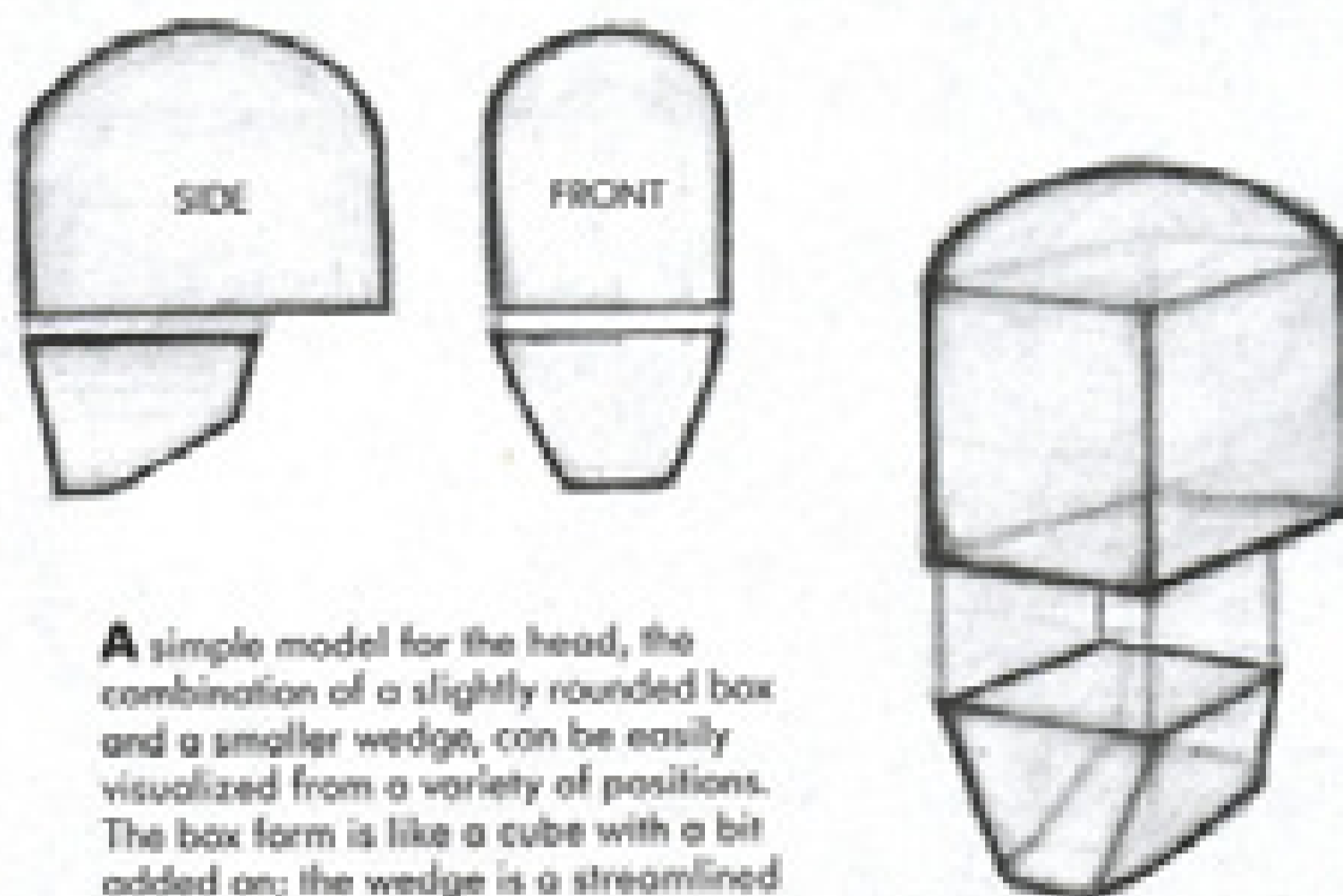
Part of an artist's training is to carefully observe and draw the skull from a variety of angles (a plastic skull can be used). Eventually, the skull's basic framework is memorized and then used as sort of a mental armature whenever the head is drawn. Norman Rockwell, whose drawings of heads were always his strong point, recalled, "I had an art teacher years ago (George Bridgman) who made us draw hundreds of skulls in all positions. I felt he was overdoing it at the time, but now I realized what a wonderful lesson he taught us. Whenever I draw a head, I instinctively feel the skull structure beneath."

We'll look at the skull in a simplified, streamlined version. Then we'll examine its proportions, finally describing the different parts of the skull and how they relate to what we see on the face.

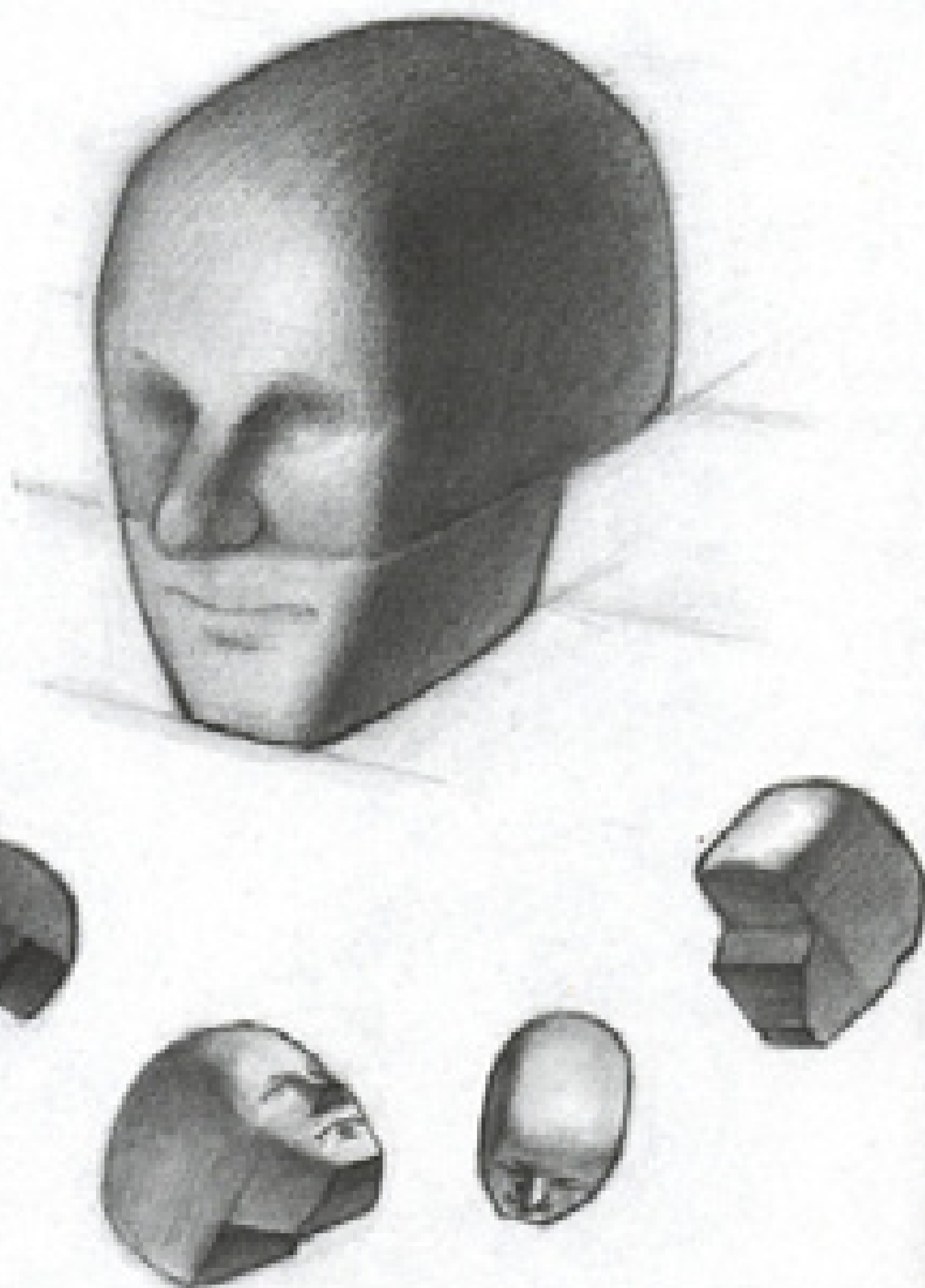
A Simple Version

The best way to memorize a complex form is to find a simpler form that's a close equivalent. From an artist's viewpoint, cars are boxlike; Christmas trees cone-like; smokestacks and pencils simply larger and smaller versions of cylinders. Relating objects to simple forms is very helpful both in drawing them from life and from the imagination. Although attempts have been made to equate the head with a box, an egg, or another fundamental form, most artists prefer a slightly more complex shape to use as their imaginary model. One example is illustrated.

THE SKULL SIMPLIFIED



A simple model for the head, the combination of a slightly rounded box and a smaller wedge, can be easily visualized from a variety of positions. The box form is like a cube with a bit added on; the wedge is a streamlined version of the skeletal jaw.



Skull and Head Proportions

Although the skull is what makes our heads different, all skulls are basically the same. We think that because everyone looks so different, the differences between one person and the next must be quite pronounced. But we're experts; we've been looking at faces every day of our lives. If you've ever watched an expert in another field at work—say, a geologist examining a rock, or a palm reader looking at a hand—you know how much more they see in what they're examining than we do. Their long experience lets them distinguish tiny variations between items we might think identical. The distinctions we are capable of making with the face are just as refined, but skulls are another matter—we simply don't have enough practice looking at skulls, and so the variations aren't ob-

vious. People, and skulls, are different, but not all that different. We're just used to people.

The consistent shape of the skull makes proportional rules for the head possible. The exceptions to the rule aren't off by much. It's not true, for example, that all people have eyes halfway up their heads. The exception might be someone with eyes slightly higher or slightly lower. And for the vast majority of us, this pattern will hold true.

SOME PROPORTIONAL FACTS

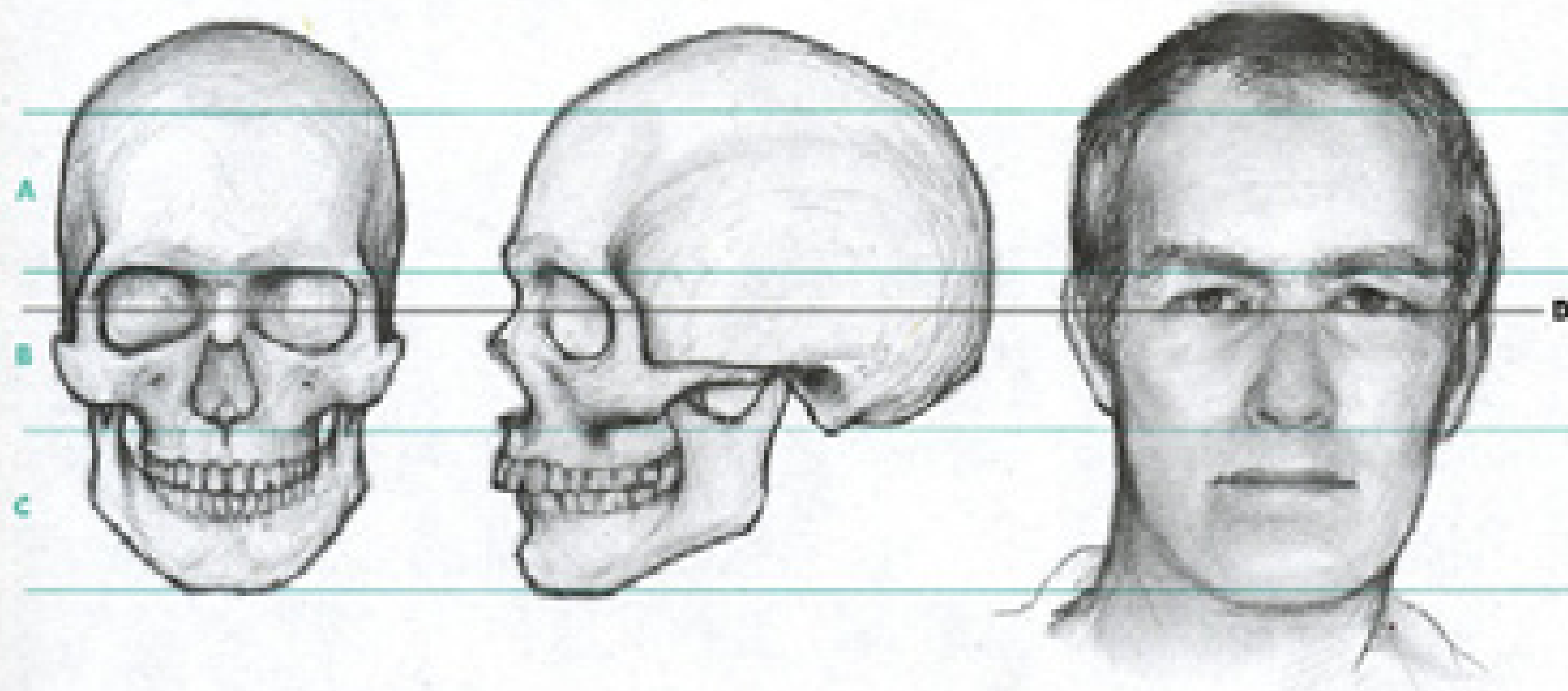
There have been a lot of rules invented concerning the proportions of the skull going back at least as far as the Greeks. I discuss below the ones I think the most important.

Overall Shape

The height of the skull and the depth of the skull are nearly the same. Keeping this fact in mind helps avoid the common drawing error, "cutting off the back of the head"—making it too short. In a side view, before marking off the end, compare the height to the depth, making sure they're approximately the same.

The width of the skull is the smallest dimension. The average skull is only about two-thirds as wide as it is tall. It gets that wide at the level of the cheekbones; it's narrower above and below. Skulls with wider cheekbones have a more oval shape. With slender cheekbones, the skull appears more rectangular, because there's less difference in size between the cheekbones and the rest of the skull.

SOME PROPORTIONAL FACTS



The similarities among human heads are more striking than the differences. Artists have a name for the major type of similarity: *proportion*. Proportional patterns in the head have been the subject of artists' attention since classical times. We use the skull as our guide because its landmarks are the most stable. The most consistent, and useful, proportional rule regarding the skull is the location of the halfway point. It almost always falls in the middle of the orbit, which on the face is the middle of the eye. The eyes are halfway up the head. Exceptions to this rule are rare. Another important pattern is the rule of thirds. From the top of the forehead, the skull divides into three equal sections: forehead–brow; brow–base of nose socket; base of nose socket–chin.

- A. UPPER THIRD
- B. MIDDLE THIRD
- C. LOWER THIRD
- D. HALFWAY POINT

Location of the Eyes

The smaller forms of the skull help determine the locations of the features. The eye socket, for instance, determines the position of the eyes. Since the eye socket invariably falls about halfway up the skull, the eyes are always found on or near the midline of the head. To be more precise, the inner eye corner usually sits on an imaginary line drawn through the middle of the head. This rule alone would save many students a lot of grief. Because people tend to make the features too big, the eyes tend to go a lot higher up the head than just halfway.

The Rule of Thirds

The skull can be divided in another way. A point is located just below the top of the skull called the "widow's peak." This is the spot where the *fore-*tal base (corresponding to the fore-

head) makes a sharp break with the upper plane—it's just slightly below the actual top. From here the skull is divided into thirds, and each dividing line falls on a major landmark as follows:

- One-third of the way down from the widow's peak, the bony prominence called the eyebrow (or superorbital) ridge bulges out above the eye socket. On the face, this is where the eyebrows grow.
- Two-thirds of the way down from the widow's peak, the bottom of the oval-shaped nose socket is found. On the face, this is where the nose ends—where the tip turns under to meet the upper lip.
- The lower border of the skull is the edge of the bony jaw. On the face, this is the border of the chin, where the face ends and the neck begins.

This proportional pattern—the dividing of the skull (and face) into three equal regions—is not quite as universally true as the one concerning the eyes. But skulls—and people—don't vary from this arrangement by much.

When there are exceptions to this rule, it's usually the central third that varies from the arrangement. According to the rule of thirds, the distance from the base of the nose to an imaginary point between the eyebrows is the same as the distance from nose base to the bottom of the chin. I'd say this is right on the mark about 70 percent of the time. The rest of the time it's usually the length of the nose that's short. About 30 percent of us have noses that are a bit shorter than the space from nose to chin. It is exceedingly rare to find someone with the distance from nose base to eyebrow longer than the distance from nose base to chin.

PORTRAITURE

Nobody's perfect. Was it she, or was it her portrait painter? A most peculiar-looking effect occurs when the eyes fall higher than halfway up the head. The woman might have looked this way, but a far more likely explanation is that the artist (an early American painter) inadvertently left out part of her forehead. Taking a bit off the top is the most common of all errors in portraiture.

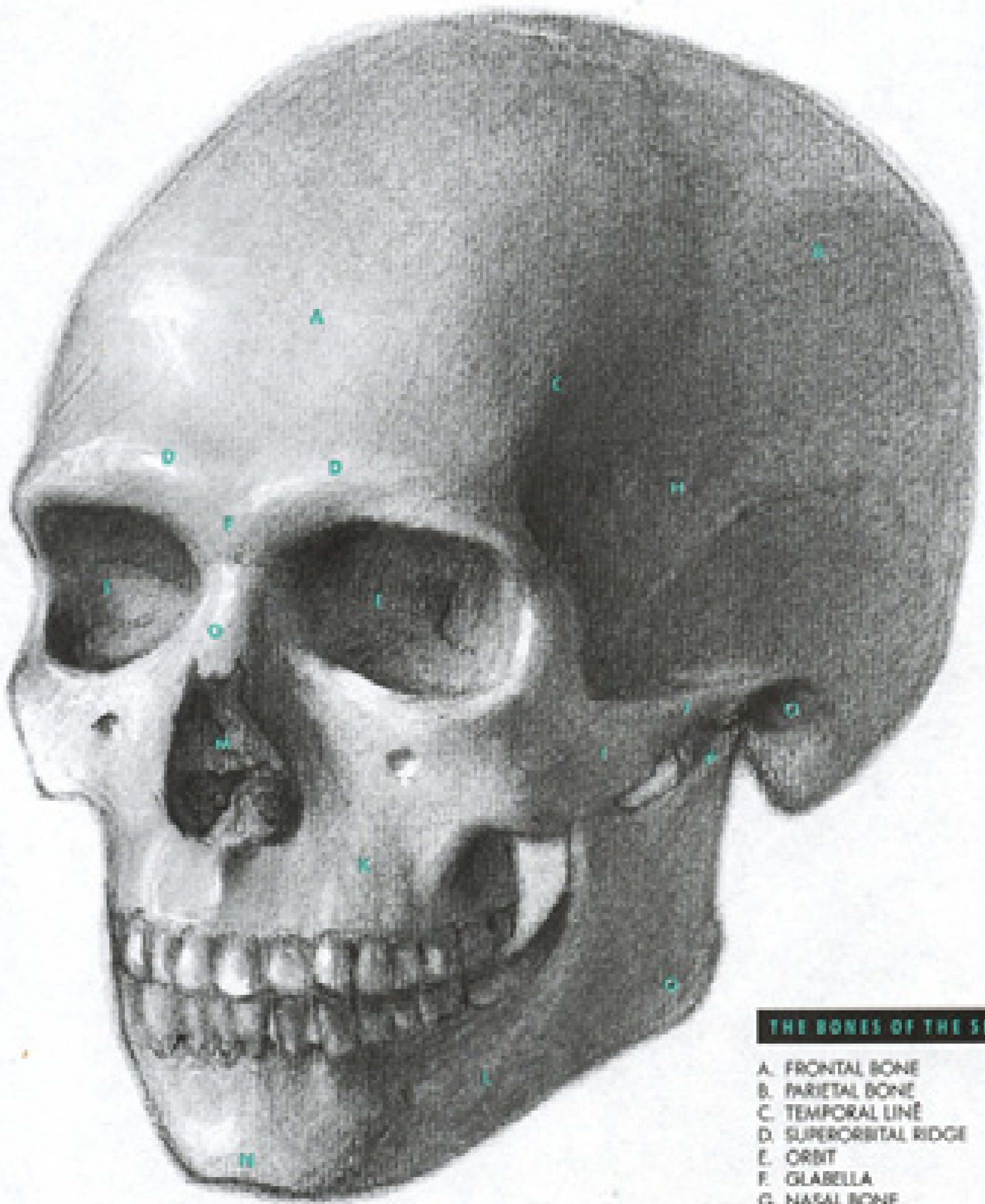




Long-nosed or average? The aristocratic Edvard Degas painted many self-portraits. A striking feature of most of them is his long, slim nose. Long indeed; as seen in the etching, Degas's nose is longer than the distance from the base of his nose to his chin. On the average face, the distance from the top of the nose (A) to the nose base (B) is the same as the distance from the nose base to the chin (C). On one out of four people, A to B is shorter. The Degas nose occurs less than 5 percent of the time.



Is this the "Degas nose"? Examining the photograph of the artist, it appears that he had proportions more average than those he painted, that is, his nose and chin lengths seem equal. Rather than being as literal as they seem, Degas's self-portraits may represent a calculated exaggeration, a sort of self-caricature.



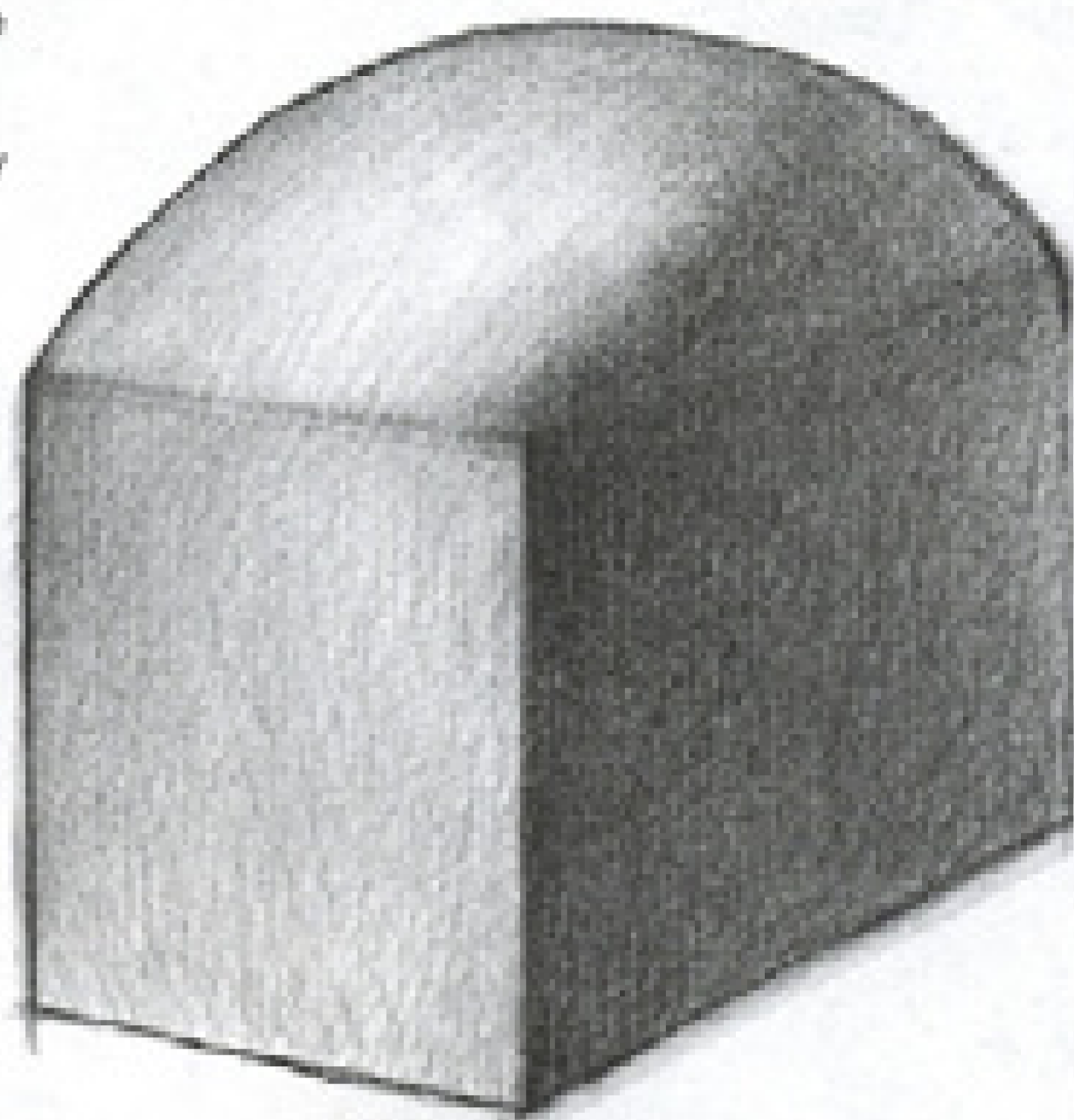
THE BONES OF THE SKULL

- A. FRONTAL BONE
- B. PARIETAL BONE
- C. TEMPORAL LINE
- D. SUPERO-RBITAL RIDGE
- E. ORBIT
- F. GLABELLA
- G. NASAL BONE
- H. TEMPORAL BONE
- I. ZYGOMATIC BONE
- J. ZYGOMATIC ARCH
- K. MAXILLA
- L. MANDIBLE
- M. NOSE SOCKET
- N. MENTAL PROTUBERANCE
- O. EARHOLE
- P. HINGING POINT OF JAW
- Q. ANGLE OF JAW

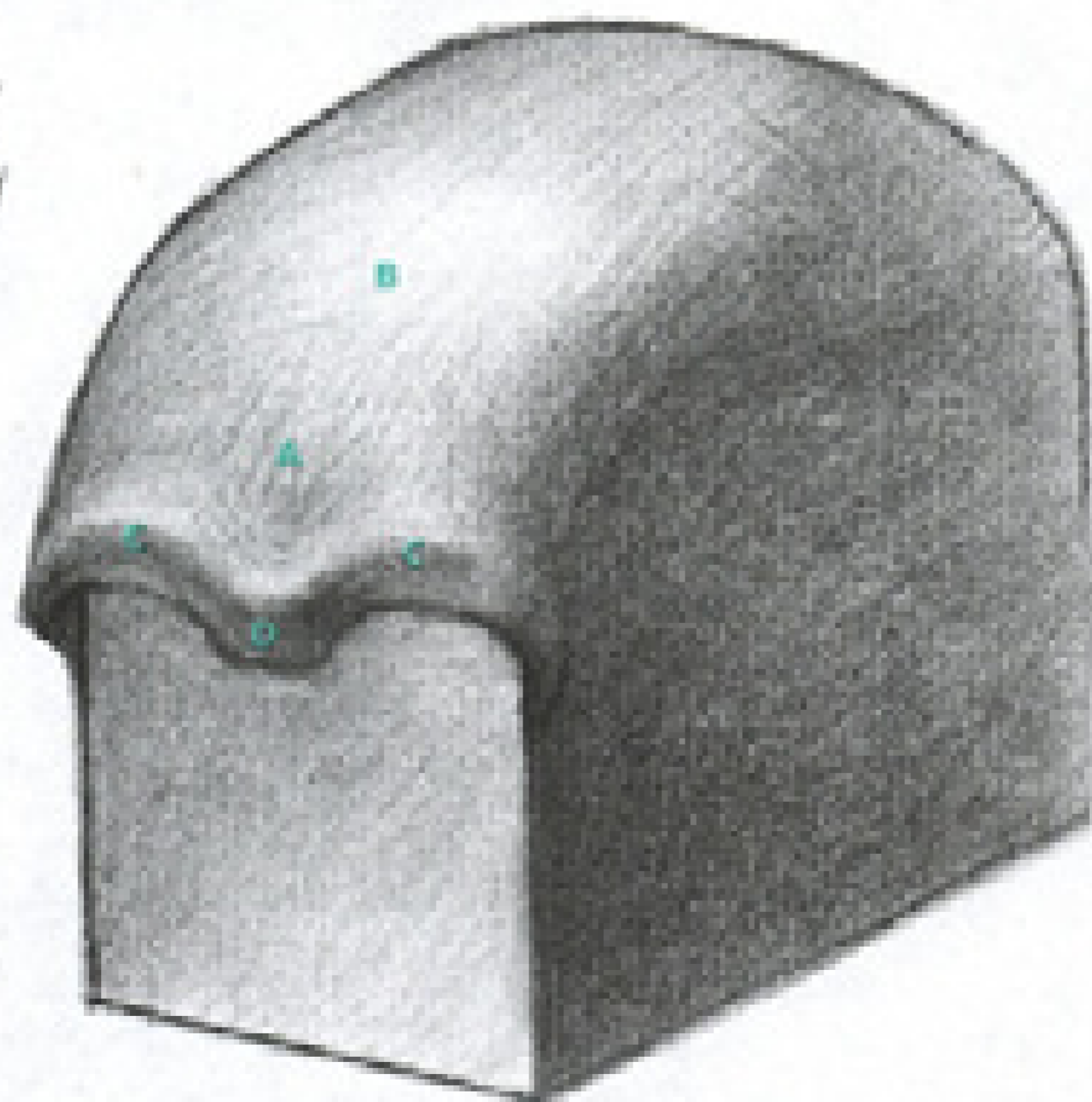
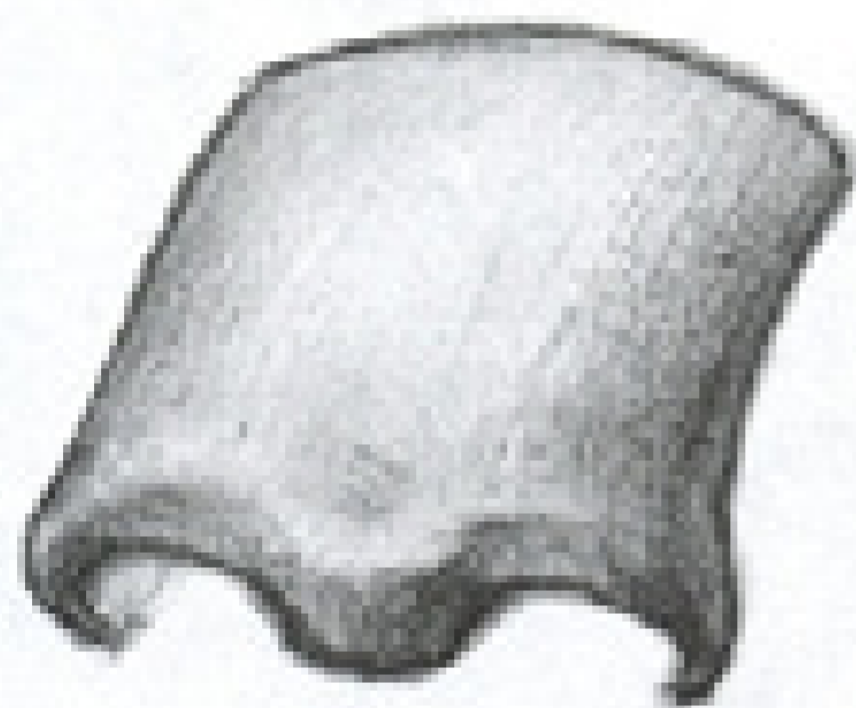
THE UPPER THIRD

No other skeletal form inspires such strong associations as the human skull. It's so close in shape to the head that it almost seems to have its own personality. Here, each of the key forms of the skull is added to the simplified head block, area by area. Each makes its presence strongly felt on the surface of the living head. Artists can benefit greatly by retaining these forms in their minds as a sort of armature upon which renderings of the head can be based.

The skull can be summarized as a wedge hanging below a rounded, rectangular block. By adding on and carving away, these simple shapes can be altered to produce a version much closer to the skull's actual appearance. This will be done in stages based on the three sections: widow's peak to brow; brow to base of nose; and base of nose to chin.



The basic block: a perfect square in front, rectangular on the side, and rounded on the top.



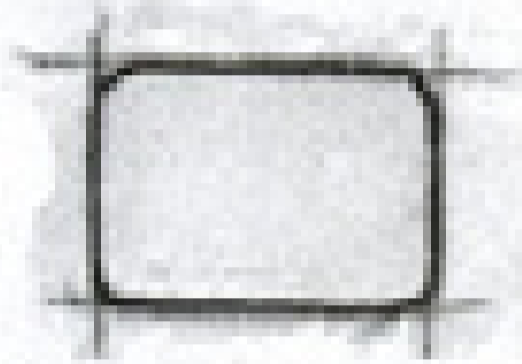
SHAPE

The forehead plane (A)—the vertical portion of the frontal bone—makes an abrupt break with the curved dome of the skull at the widow's peak (B). Its surface is gently rounded, like the roof of a car. So slow is the curve that the light values change on the forehead more gradually than anywhere else on the face. The lower edge of the forehead plane protrudes out as the two arched mounds of the eyebrow or superorbital ridges (C). Linking them in the middle is the keystone-shaped globella (D), the attachment point for the frowning muscles.

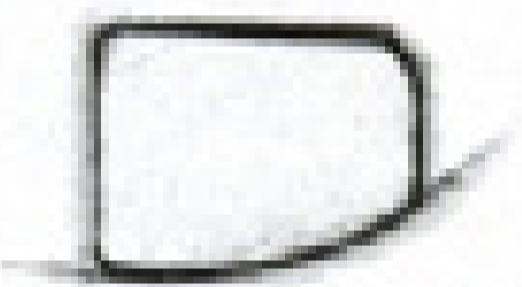
THE MIDDLE THIRD

CONSTRUCTING THE EYE SOCKET

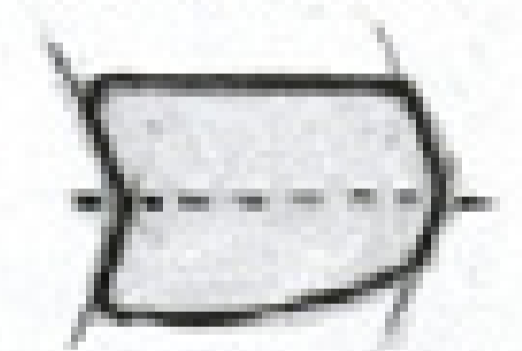
The eye sockets are roughly rectangular. The best way to understand their shape is by clearly visualizing their bony rims, curving from front to side and bending from above to below. Here, a rim's shown as a wire frame, twisted by the steps below into required shape.



A. The primary form is a rectangular frame with rounded corners, like the frame of a pair of eyeglasses.



B. The lower, inside corner is cut off, replaced by an arc. (This curved line will show on most faces.)

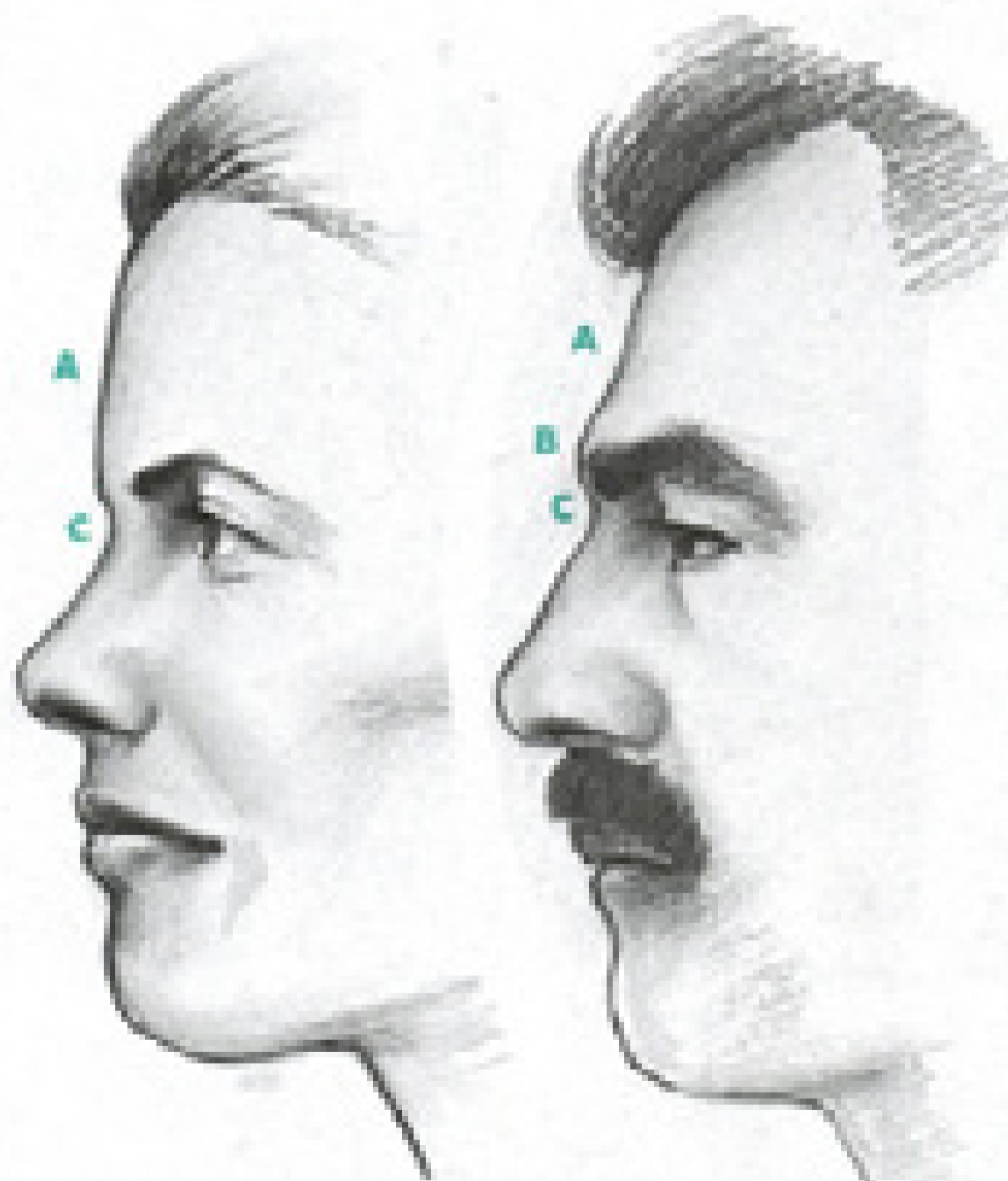
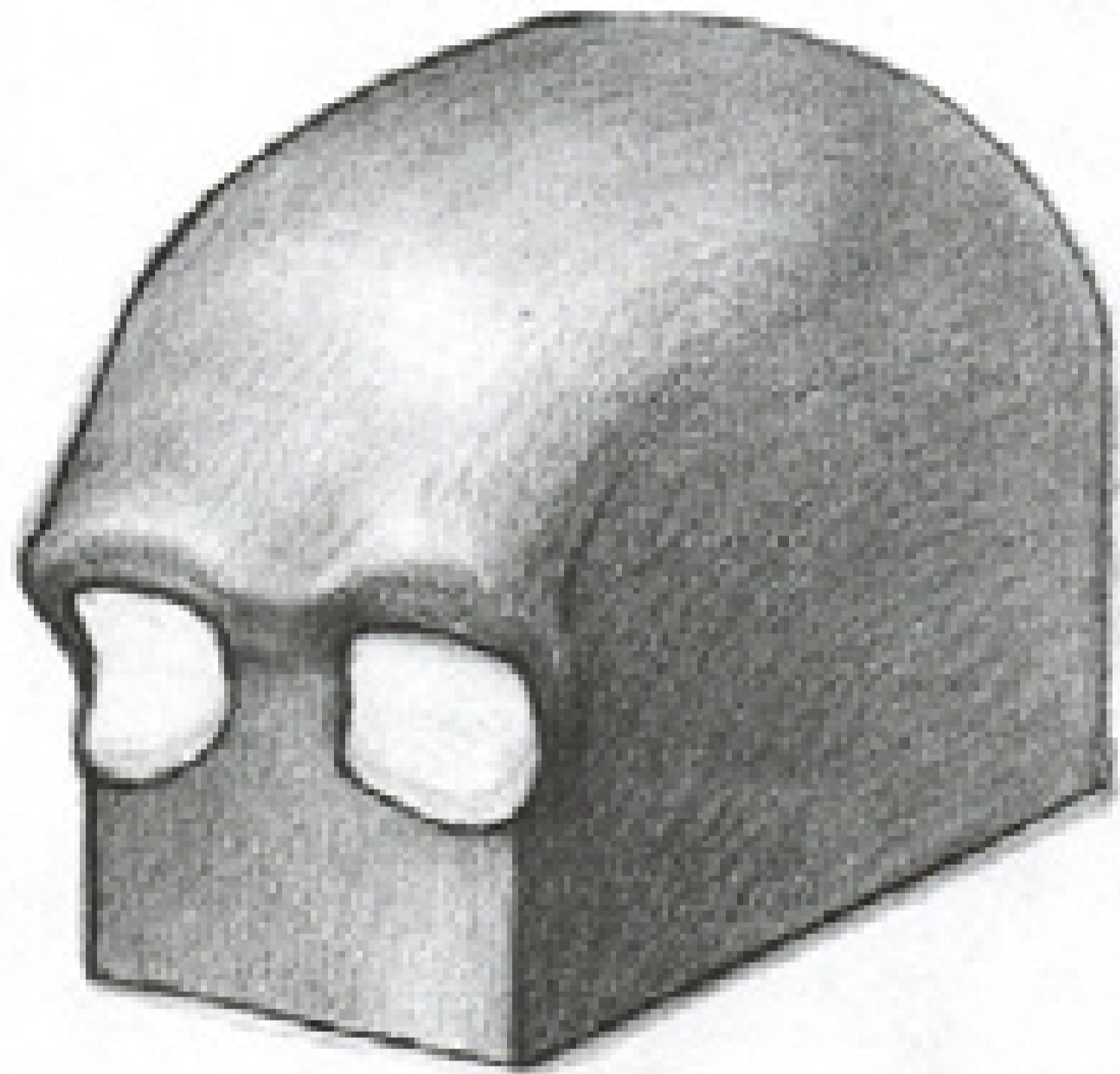


C. The entire frame folded a bit along its waist, bending left and right verticals.



D. The outermost quarter of the frame is twisted to the outside, so that part of the frame faces forward, part sideways. The in-and-out curve of that outer edge shows up in all three-quarter views.

Brow ridge to base of nose socket. The middle third of the skull is the most interesting part. It's got the shadowy, sad-looking eye sockets and the projecting cheekbones. It's also the part where the forms are the most complex. Curiously, the upper and lower half of this area are practically reverse images of each other. The upper half, around the eyes, consists of two voids connected by a bony plane; the lower half, around the nose socket, is made up of two bony planes separated by a void. With the exception of the nose socket, which is completely invisible on the living face, all these forms are left strongly on the surface.

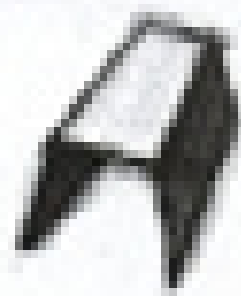


MALE VERSUS FEMALE

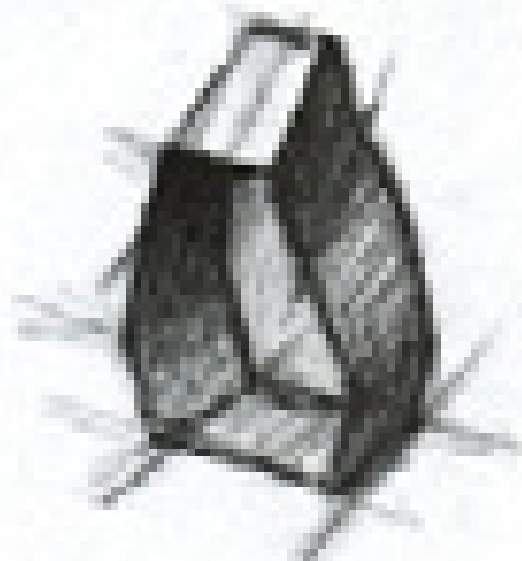
As seen in profile, the forehead slope (**A**) varies from nearly vertical to quite angled. As a rule (with plenty of exceptions), men's foreheads are more sloped than women's. A strong eye-brow ridge (**B**) is a more constant indicator—if a skull has it, it's definitely male. Without the brow ridge, the female profile always shows a smoother transition from forehead to nose. Note the slant of the glabella (**C**)—it always looks downward.

THE MIDDLE THIRD

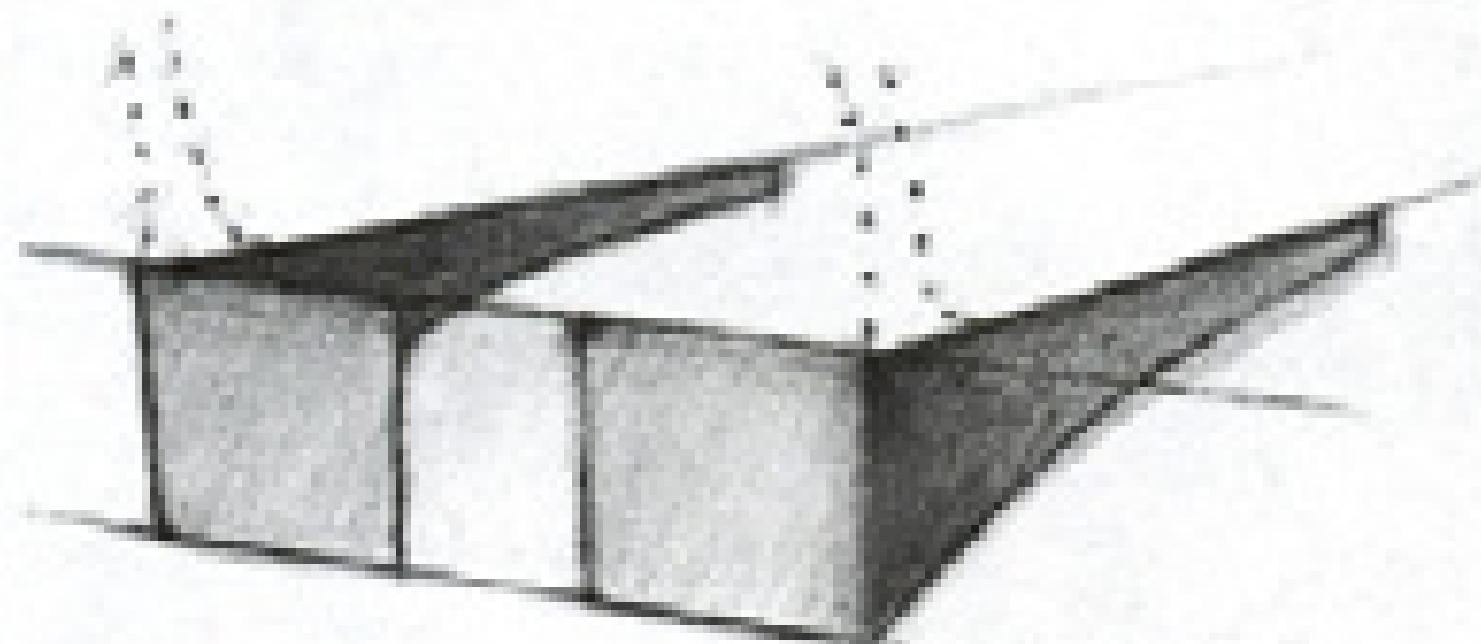
CONSTRUCTING THE NOSE SOCKET



A. Three flat planes arranged in an upside-down U make the bridge of the nose, also called the nasal bone. This shape is similar to that of a row of staples.

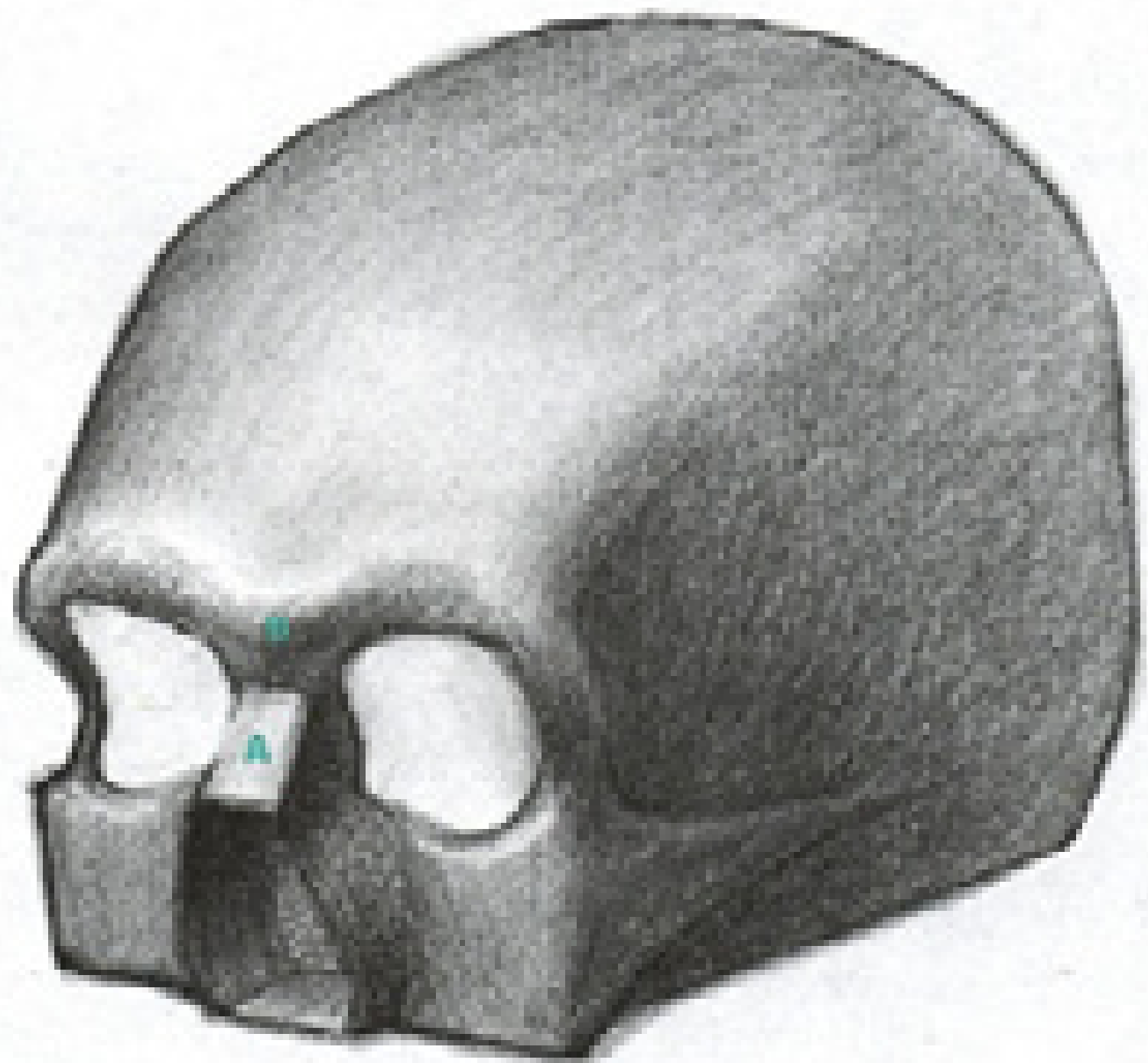


B. To complete the nose socket, the side planes of the bridge are extended down the skull, flaring outward slightly and curving in a sort of oval. The bottom of this construction, found on the living face beneath the tip of the nose, is simply a little flat shell.



Here, the cheekbones are visualized as resembling a pair of cardboard spectacles. The flat, squarish front planes are similar in size to the eye sockets; where they sit is always the widest point on the face. The eyeglass "stems" are known as the zygomatic arches, prominent not just on our skulls, but also on those of many of the mammals, like cats and mice. The arches end just in front of the ear-hole, halfway back on the skull. Where the stem and the front plate join, a thin, upright stem arises, following the eye socket along its outer rim. This form can be clearly seen on thin people.

The nose socket has a keyhole-shaped, raised edge. The upper portion, between eye sockets, is formed by the bridge of the nose. The bridge, a strong, sharp-cornered form (**A**), projects outward at about the same angle that the glabella (**B**) projects inward. The angularity of this (never softened by fat) produces the sharpest edges on the head. When light comes from the side, nowhere else is the boundary between light and dark as clearly visible. The bridge can be felt clearly under the skin; below the bridge the rim of the nose socket is not so clearly marked on the surface.

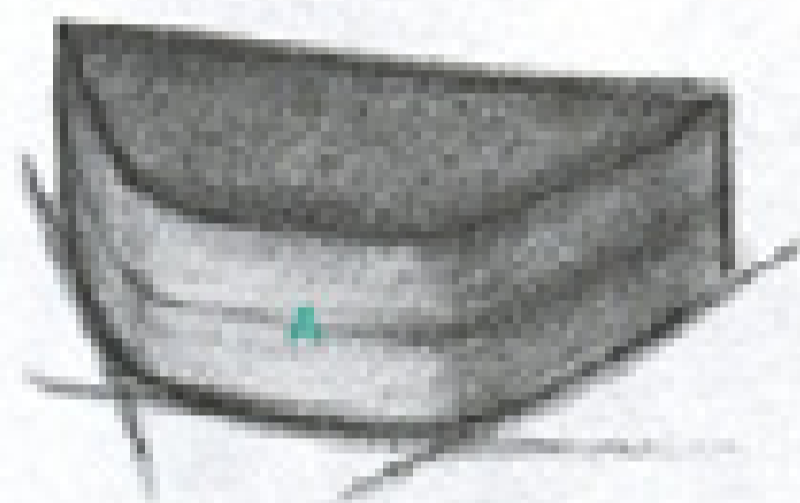


CONSTRUCTING THE CHEEKBONES

The angular cheekbones, like the forehead and bridge of the nose, can be felt just below the skin. Once you find the beginning of the cheekbone beneath the eye socket, you can follow the raised bony surface back to the ear. But just below the cheekbones no bone is felt at all. This is the location of the thickest fatty pad on the face.

THE LOWER THIRD

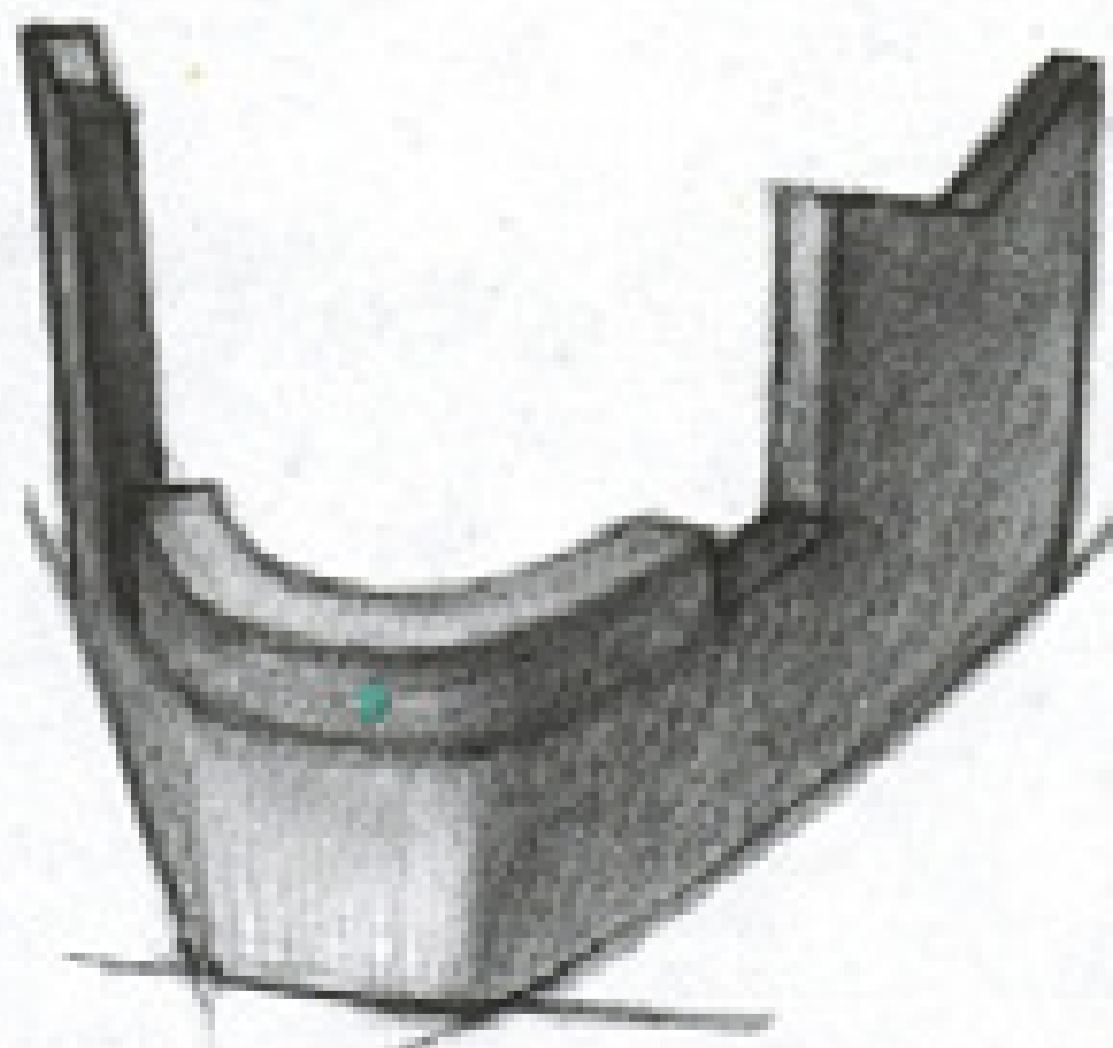
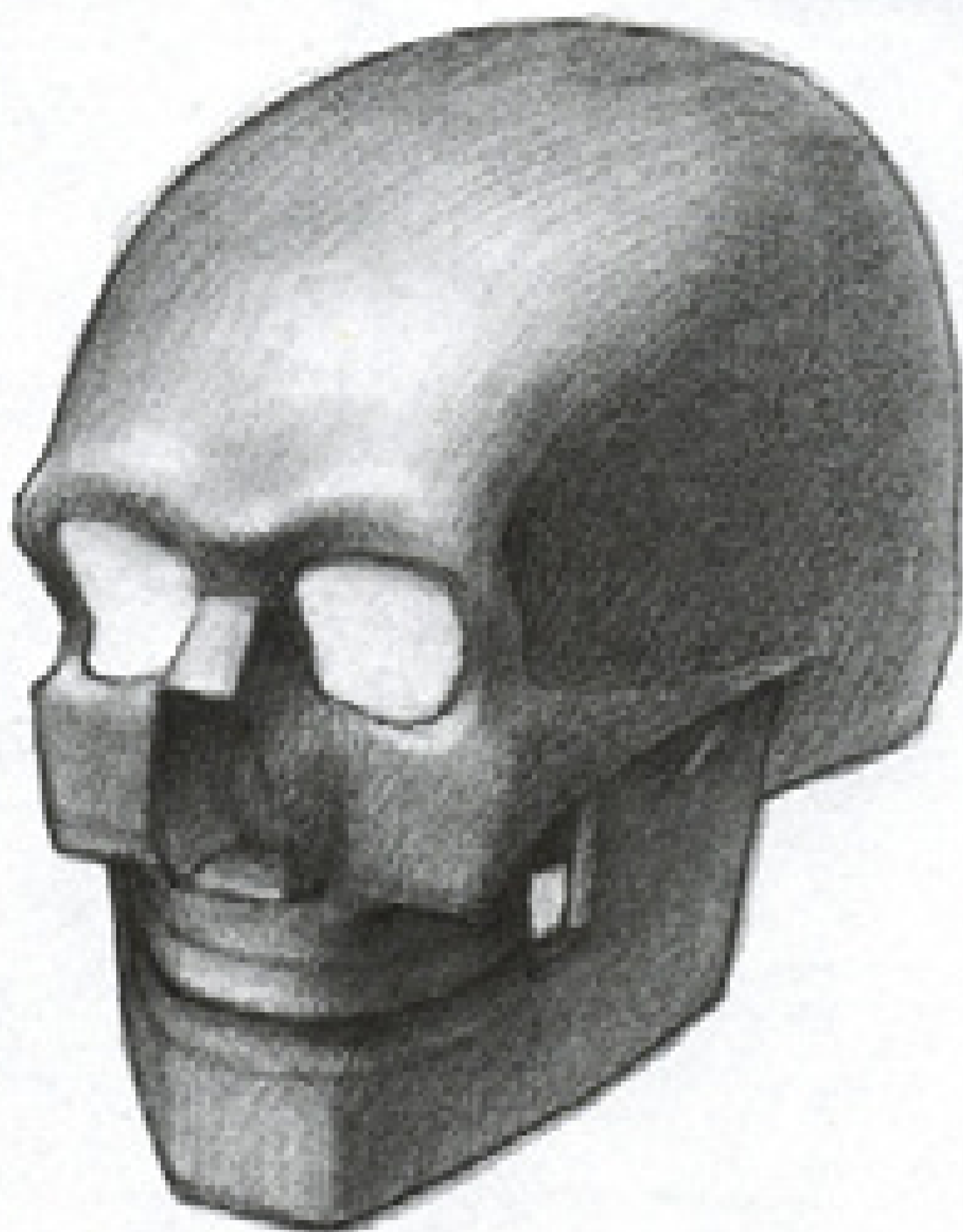
Base of nose to chin. The lower portion of the skull is more or less wedge-shaped, the product of the combined forms of the upper and lower jaws. The fixed upper jaw (the maxilla) is much simpler in overall form; the horseshoe-shaped lower jaw (the mandible) is the one that moves. The forms of both jaws are somewhat hidden on the living face; the clearest penetration to the surface is the outer edge of the lower jaw, which forms the chin and the jaw line extending back to the ear.



THE UPPER JAW

The upper jaw drops from the cheekbones and nose socket like a small half-cylinder. It's a bit flattened, as cylinders go, particularly the front part. The teeth aren't distinct from the jaw above in terms of shape and direction. They're curved just as their supporting cylinder is curved: a bit flat in the front, turning suddenly to the side. (Line **A** separates identical curves of upper teeth and upper jaw.)

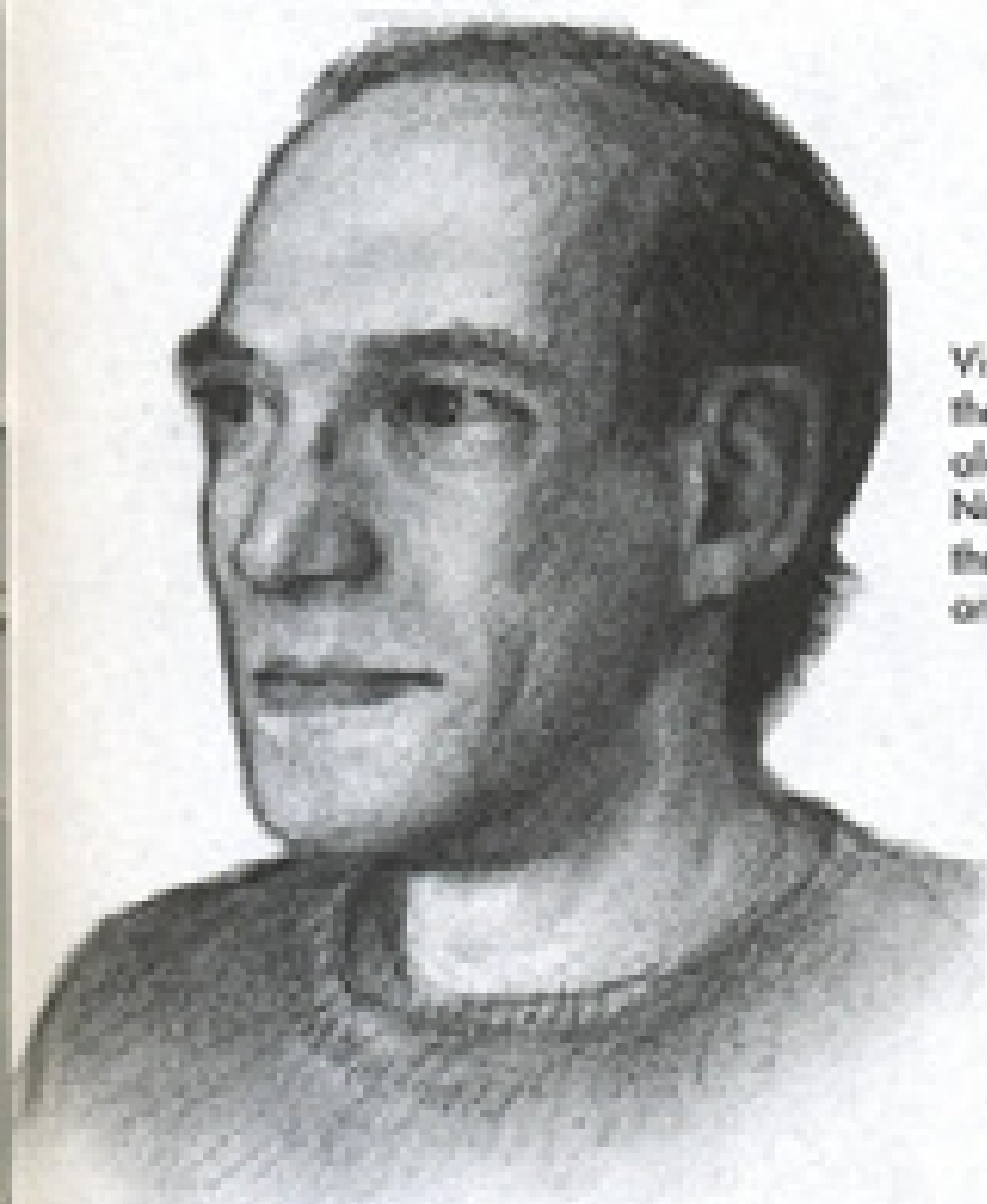
The cylinder of the upper jaw and teeth—like the matching cylinder on the lower jaw—is more sharply rounded than the rest of the face. The mouth, which follows this surface closely, is also more curved than the face surrounding it. The shape of the upper jaw and teeth has a major impact on the shape of the smile, when the stretched upper lip is pulled into close contact.



THE LOWER JAW

The lower jaw is basically a horseshoe with arms, supporting the half-cylinder of the teeth (**B**). It's squared off in front (like the teeth), angling backward like the two legs of a V. Two flat, vertical arms rise from the rear end of the jaw to a hinging point just ahead of the ear. The movable mandible can add an inch or two to the length of the face when it drops open.

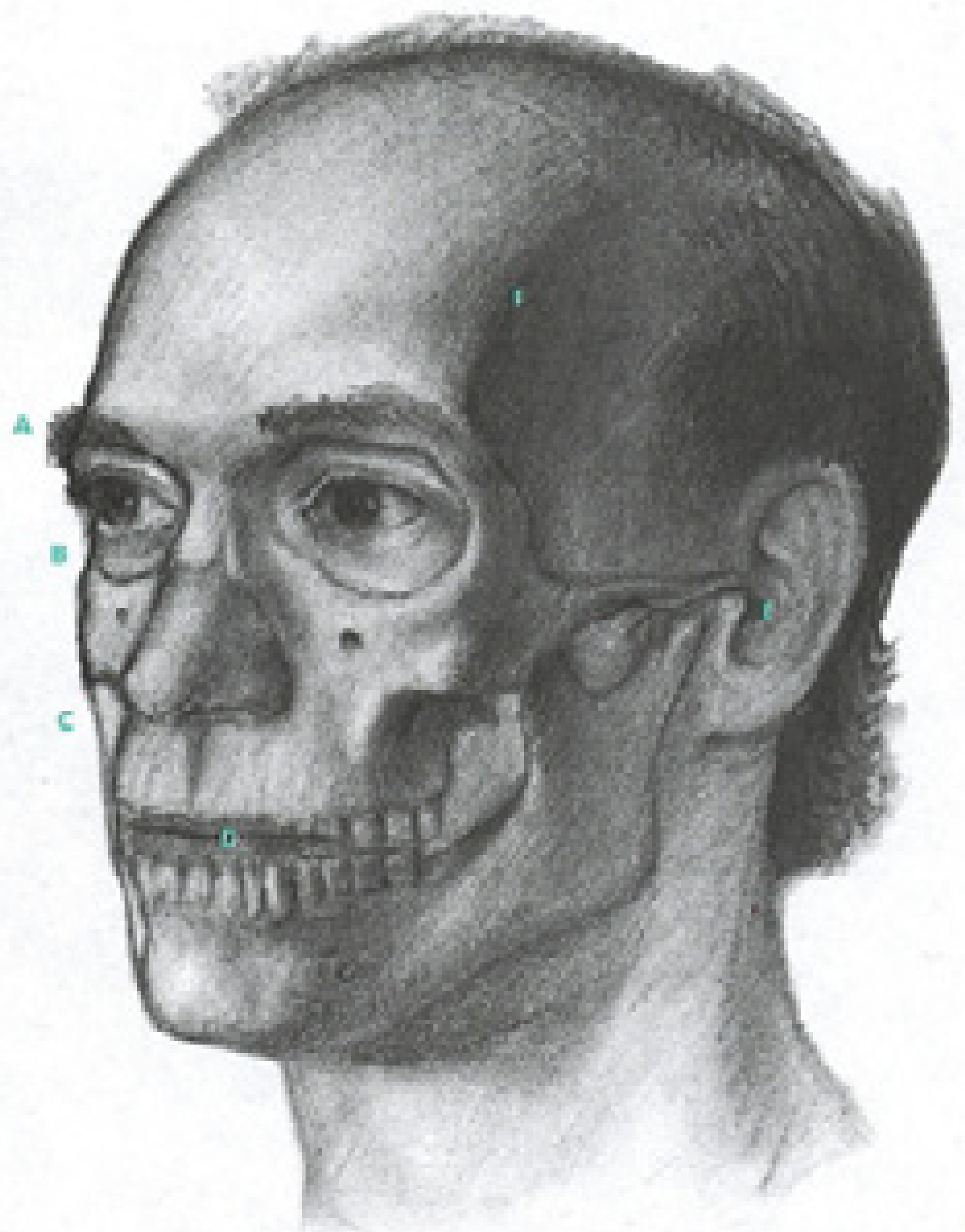
It takes very little to turn a skull into a face. In many places the outline of the face is the outline of the skull. If you practice drawing the skull for a while, after a time you get the impression of "seeing" the bone through the surface.



Visible planes. This figure shows the shadow edges that follow the planes of the skull underneath. The sharpest edge is usually along the side of the nasal bones, of the bridge of the nose. Notice how the edge softens as it moves onto the fleshy part of the nose. The skull also shows around the inner edge of the orbit and the entire lower edge of the jaw.

Here are the features, superimposed on a drawing of the skull. The outline on the left side of the face follows the bone exactly, except for the soft area between the cheekbones and the chin. On the right, the skull defines the plane turnings: forehead, cheekbone, edge of the orbit, bridge of the nose, chin.

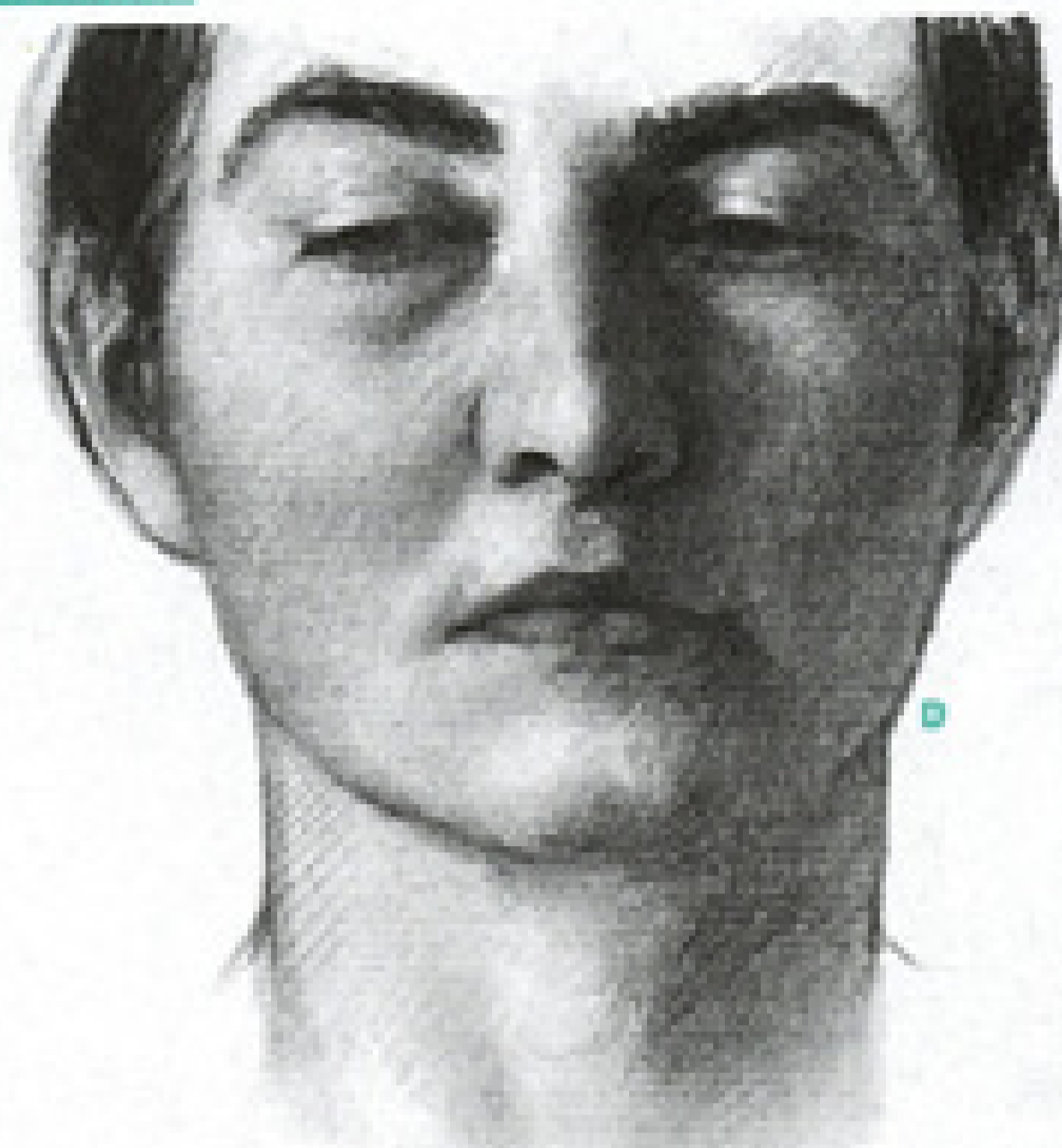
- A.** The eyebrows grow out of the superorbital ridge.
- B.** The cheekbones and orbit are always on the far outline in three-quarter views.
- C.** There is a change in direction where the cheekbone ends and the fleshy cheek begins. This line is usually fairly straight.
- D.** The mouth is centered on the upper teeth, not the edge where the teeth meet. The curve of the lips follows the curve of the teeth.
- E.** The ear is located just in back of the end of the zygomatic arch. This is the location of the earhole.
- F.** The temporal line sometimes shows on people.



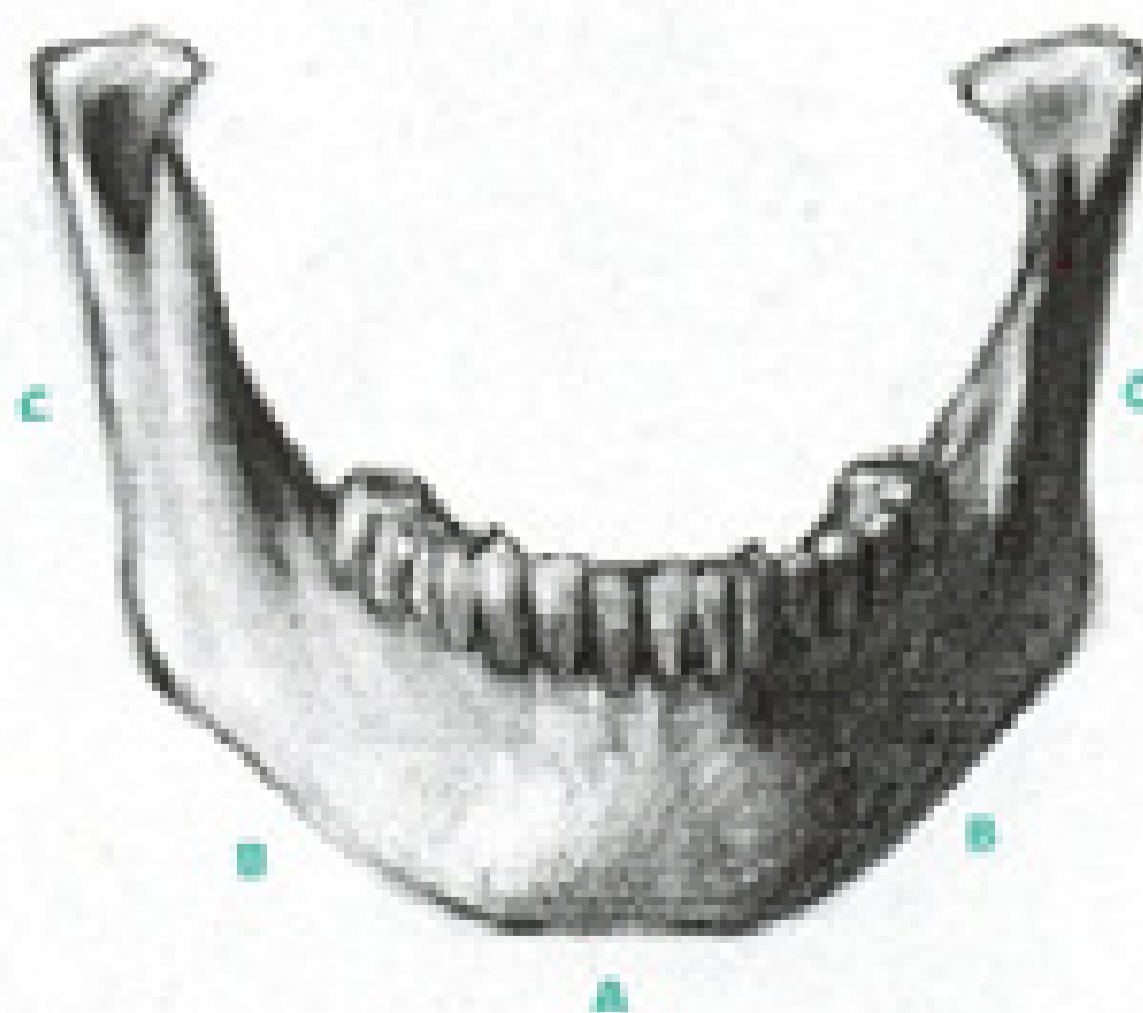
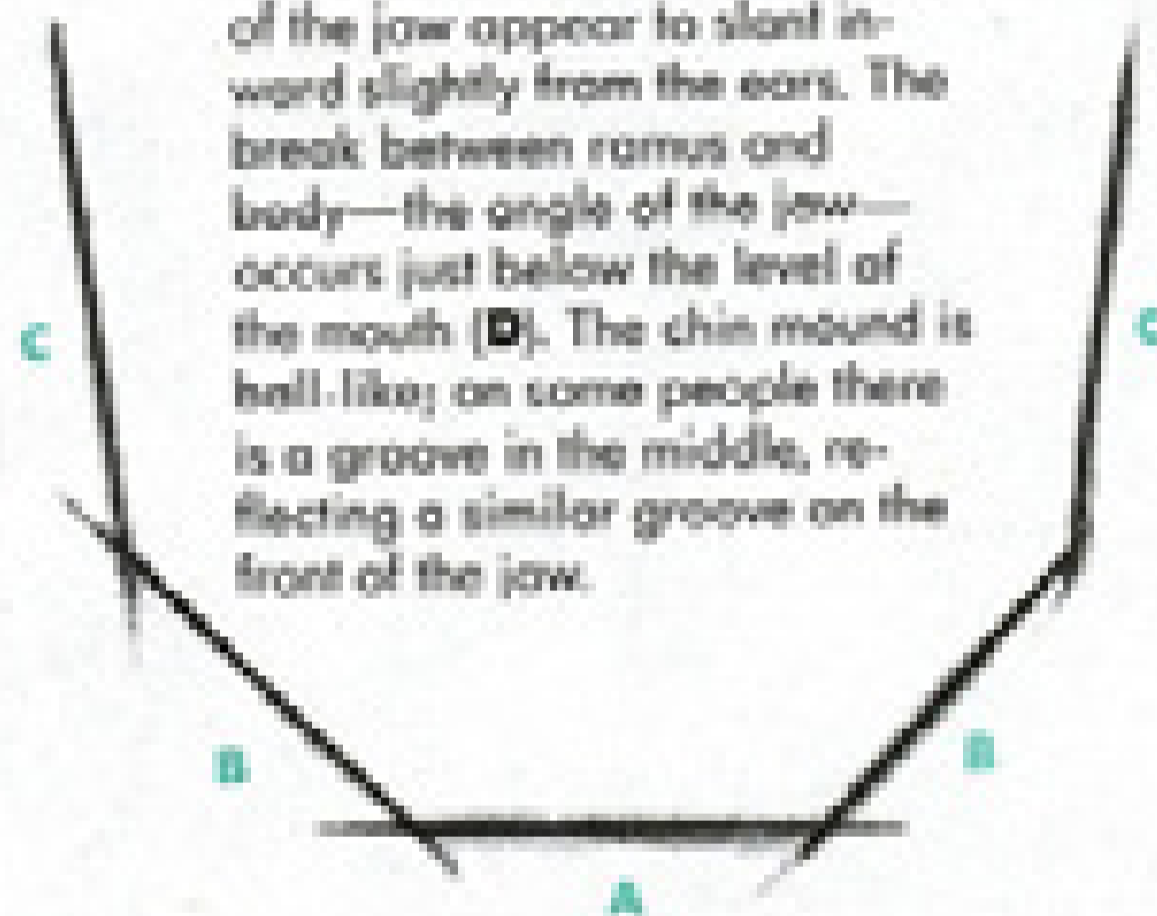
LOOKING MORE CLOSELY AT THE JAW

The lower border of the face is defined by the jaw. A sensitive drawing will show its sharp changes in direction. Straight lines will work more effectively than curves.

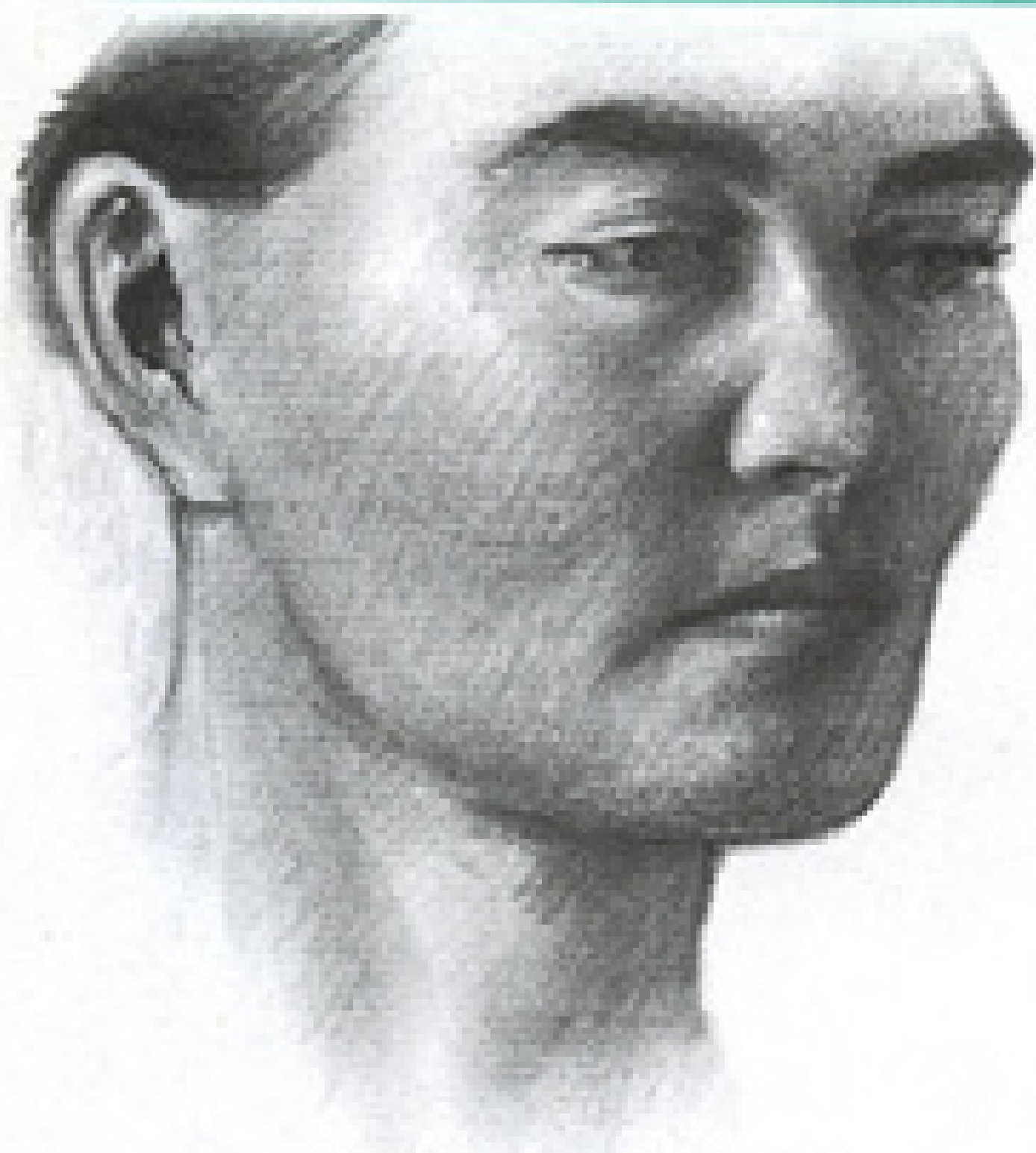
No matter what angle the lower jaw is drawn from, it can be marked by three defining lines. The first, corresponding to the chin (A), is flat from both the front and the sides. It connects on either side with the angled lines of the body of the jaw (B); short when seen from the front, long from the side or three-quarter view. The upright ramus (C) makes an almost vertical edge, pointing at the ear lobe.



From the front the upright sides of the jaw appear to slant inward slightly from the ears. The break between ramus and body—the angle of the jaw—occurs just below the level of the mouth (B). The chin mound is ball-like; on some people there is a groove in the middle, reflecting a similar groove on the front of the jaw.

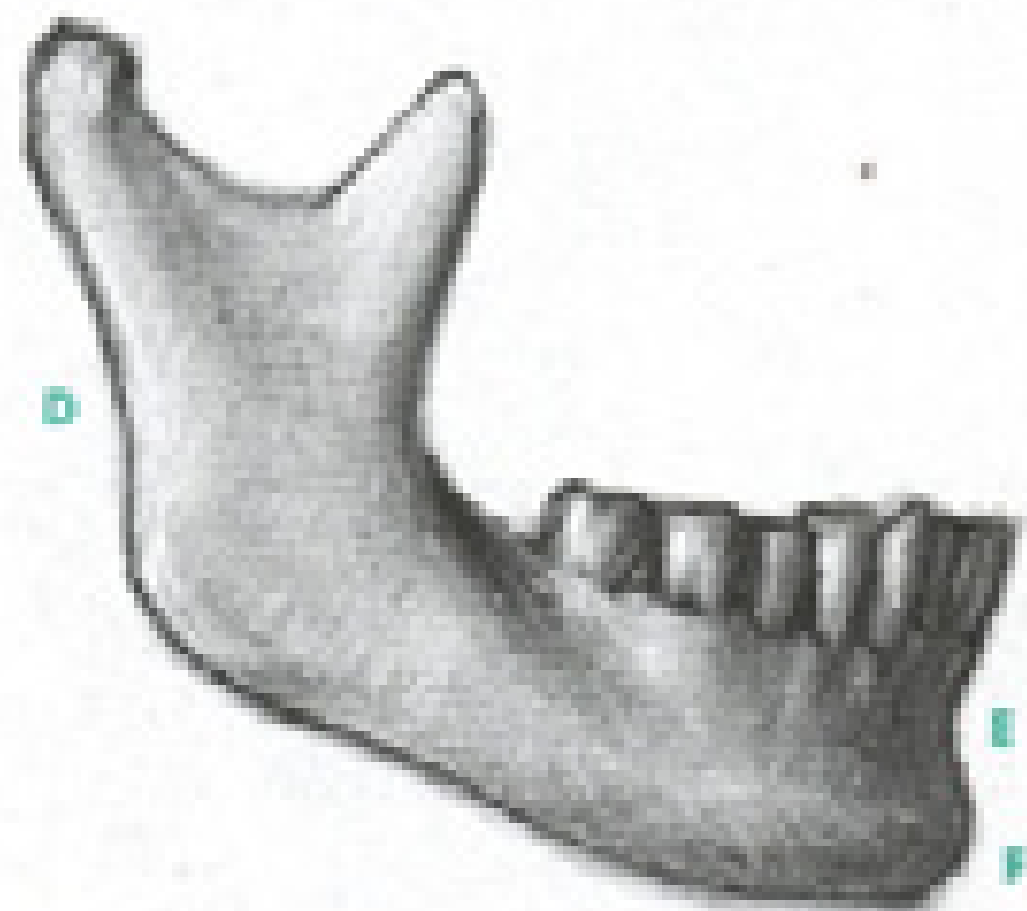
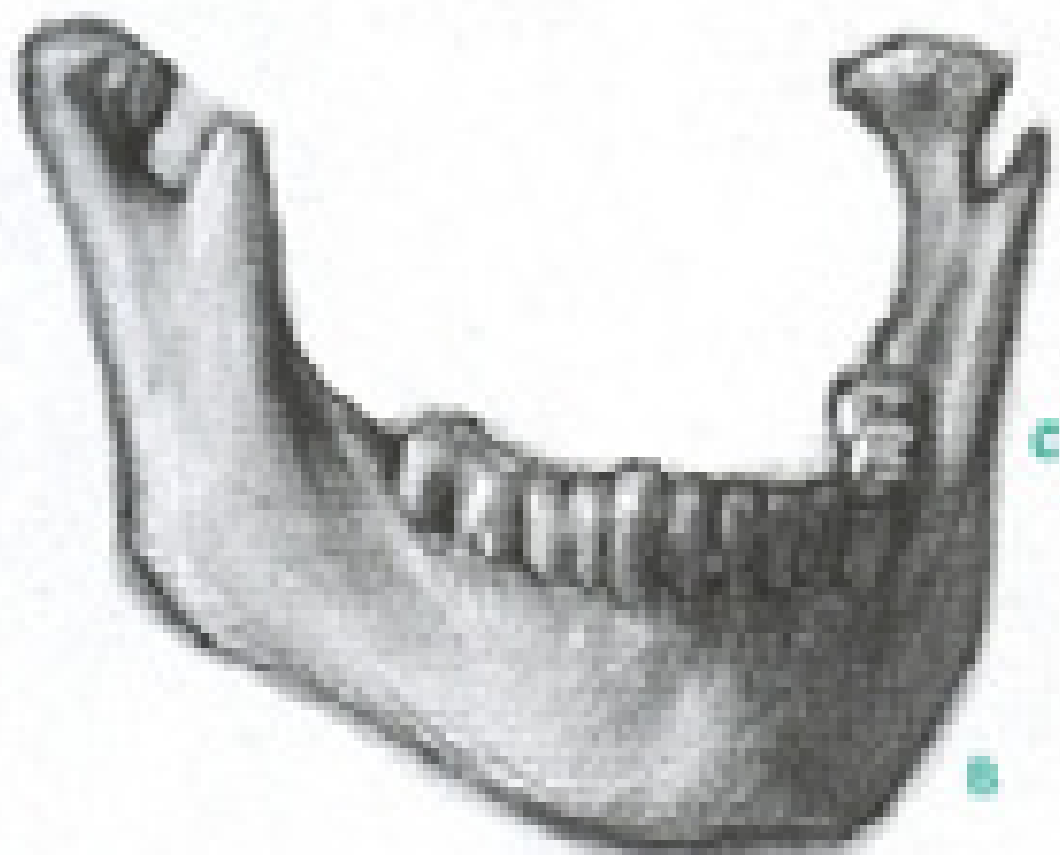
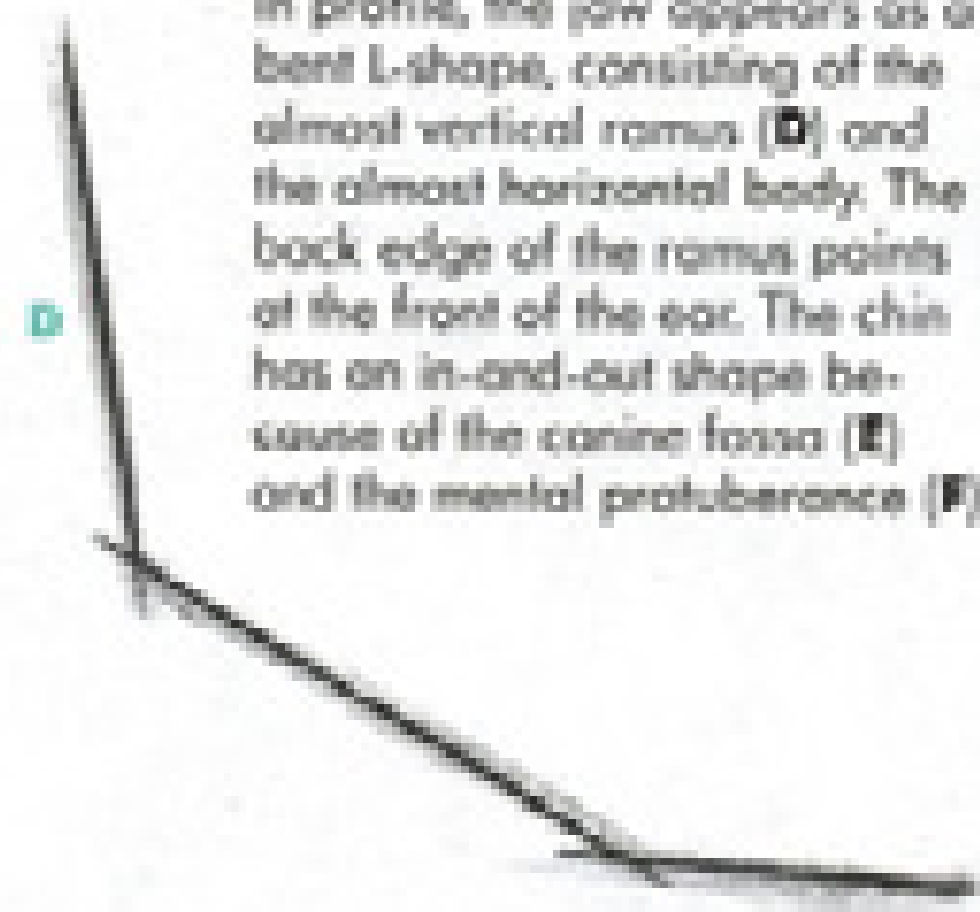
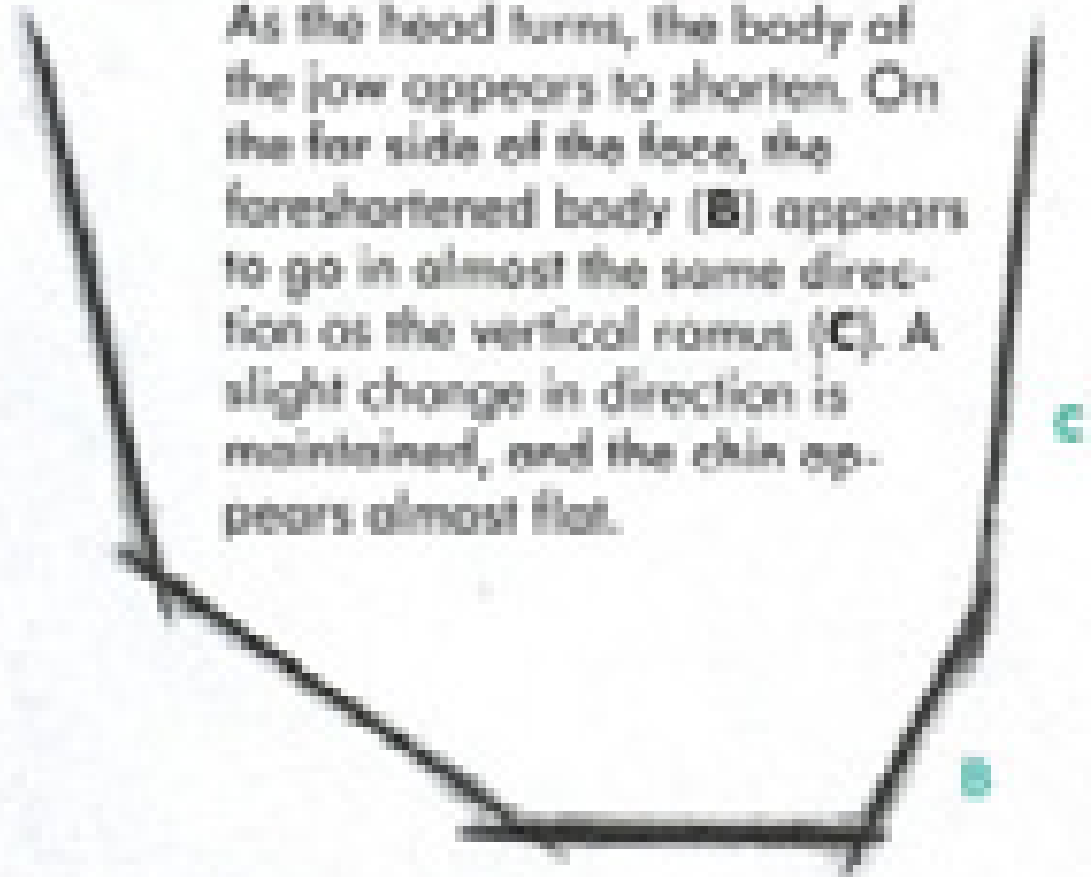


LOOKING MORE CLOSELY AT THE JAW



As the head turns, the body of the jaw appears to shorten. On the far side of the face, the foreshortened body (B) appears to go in almost the same direction as the vertical ramus (C). A slight change in direction is maintained, and the chin appears almost flat.

In profile, the jaw appears as a bent L-shape, consisting of the almost vertical ramus (D) and the almost horizontal body. The back edge of the ramus points at the front of the ear. The chin has an in-and-out shape because of the canine fossa (E) and the mental protuberance (F).



Here's two heads that contrast the showiness of the jaw line. On the woman's face (below), it shows through most of its length. On this man's head, the jawline disappears after the chin but still can be sensed under the surface.



This woman has wider cheekbones than the man above. Her face thus has a more oval quality and a sharper angle from cheekbone to chin. Learning the anatomical forms when they appear the clearest helps to see them when their look is much more subtle.

The very wide cheekbones make this line a much sharper angle than average (A).

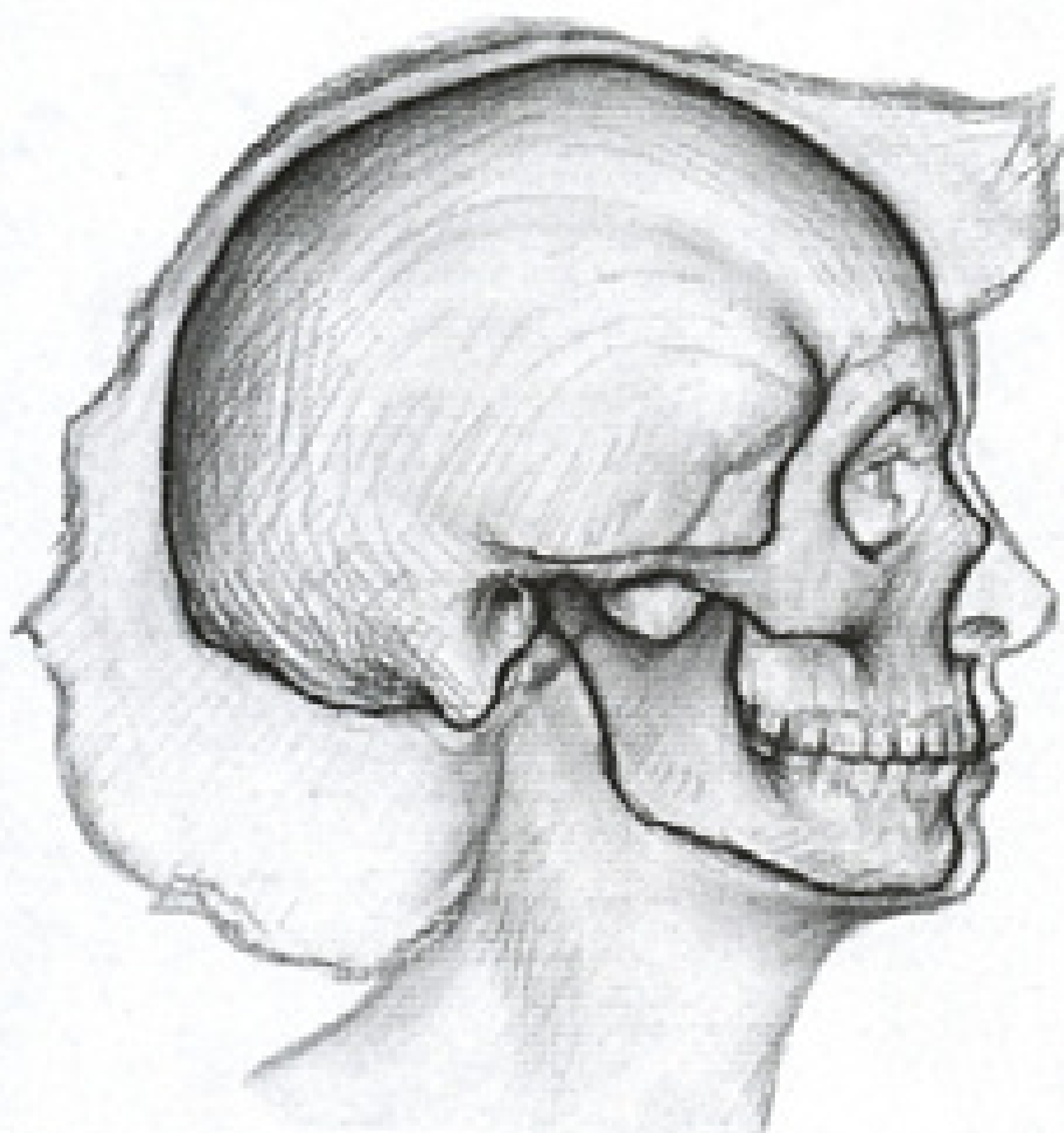




In profile, the relationship between skull and face is particularly clear. The hair follows the shape of the skull—straighter hair would hug the form even tighter. The eyebrow ridge is only a vague bump (A). Whether or not the cheekbones show up depends on the thickness of the fatty pad of the cheek as well as the shape of the cheekbone itself.

B. The jaw often becomes less sharply marked as it rises from the angle of the jaw.

C. This shadow is caused by a lack of cheek fat underneath the prominent mound of zygomatic arch; we call this “high cheekbones.”



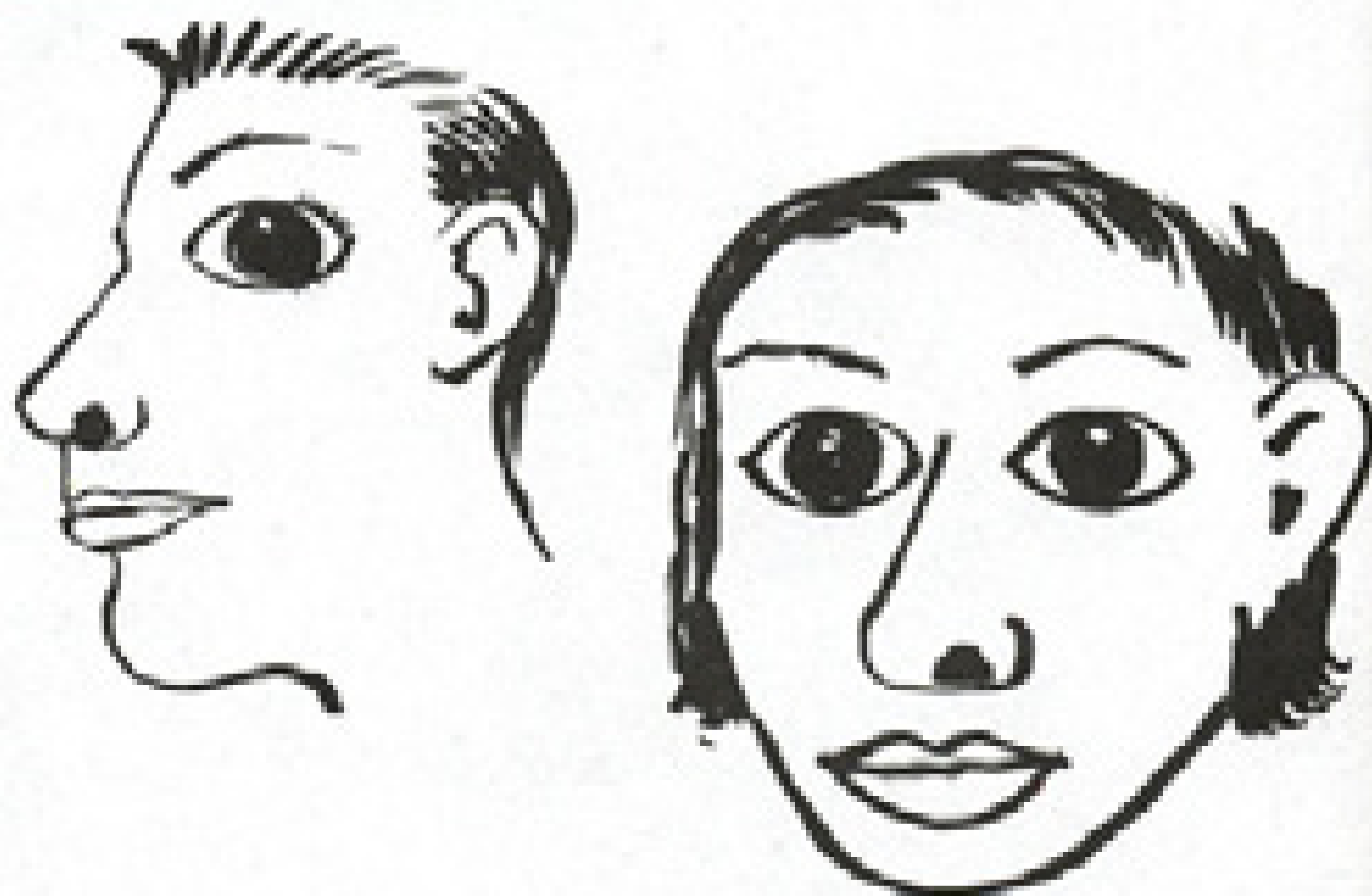
CONSTRUCTING THE FEATURES

The skull determines the big picture; the features control the nuances. I've started with the skull to emphasize the importance of having the right framework before you start to work up the details. Get the relationships of one part of the head to another right, and you have a solid foundation for your rendering.

The rest of this book looks at the features and the muscles that act on them. In this section, I start by discussing the fundamentals: the underlying construction and primary forms of the eye, nose, and mouth. By primary forms, I mean "three-dimensional"; it's crucial to visualize the features as solid, rounded objects—not just lines on paper.

Study and draw your own features up close in a mirror. It's also useful to copy the features from master drawings and sculptures, where the forms have already been clarified and interpreted. Also try drawing heads in various positions from your imagination; there's no better way to stretch yourself and find out where the gaps are in your understanding. The better you're able to draw heads without a model, the better you can draw them with one.

THE SYMBOLIC EYE



The eyes have it. The eyes, the most compelling feature, are often drawn oversized. This is done by both beginners, accidentally, and nonobjective artists, on purpose. In both cases, the eye is seen as a symbol, not a thing. Symbols, unlike things, are not affected by perspective or light and shade; here, exactly the same symbol is used for two radically different views of the eye. To draw the eye realistically, we have to forget the symbolic view of the eye as a symmetrical oval with a circle in the middle; we have to forget its emotional associations and merely draw it as a collection of shapes and forms, as we would a tree trunk or a rock.

THE EYE IN THE ROUND

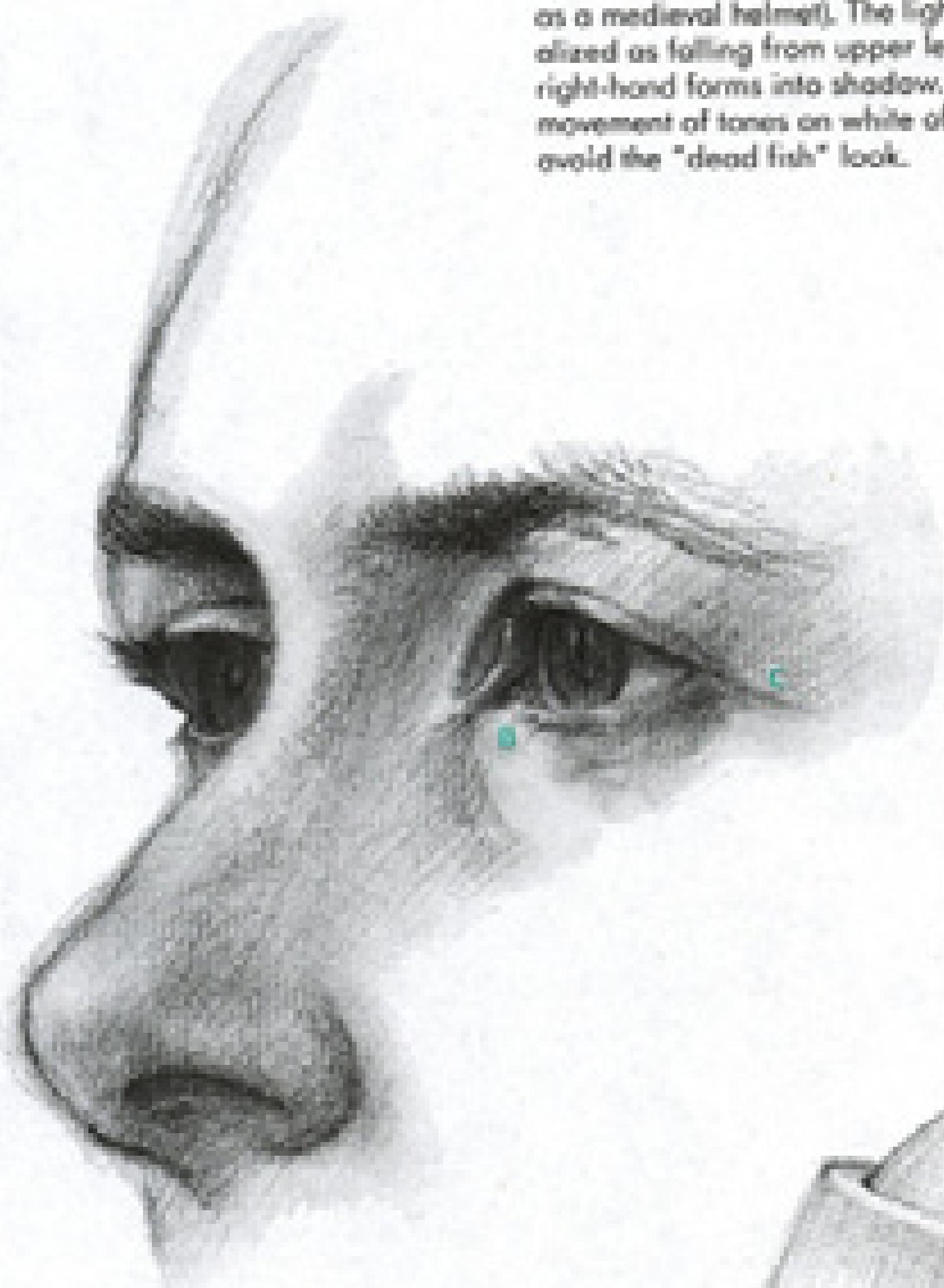
The eyeball is one of the more nearly spherical forms in nature. Its roundness shapes the surfaces surrounding it, especially the lids. An awareness of this helps give a sense of solidity to renderings of the eye. And the more solid feeling the eye, the more lifelike, the more expressive.



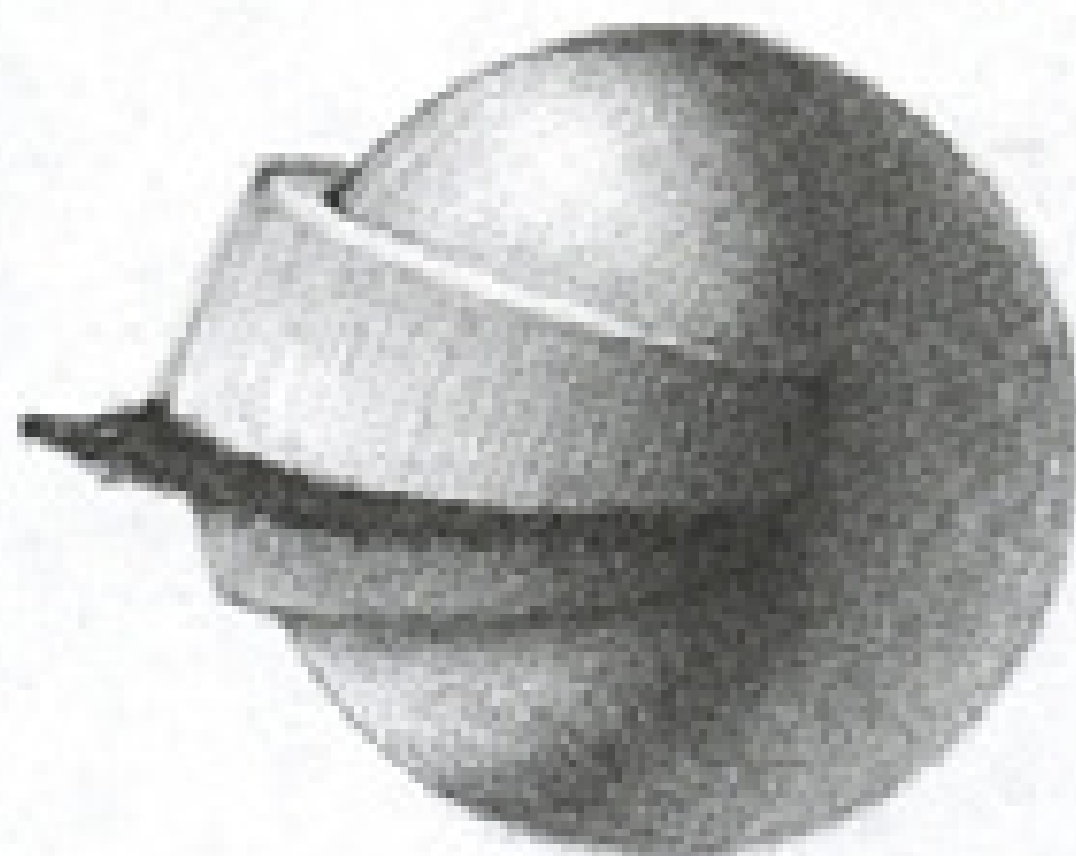
Imagining the eye as a ball with thick, visorlike lids produces a drawing bearing close resemblance to the living eye (as well as a medieval helmet). The light is visualized as falling from upper left, throwing right-hand forms into shadow. Always show movement of tones on white of the eye to avoid the "dead fish" look.

When lit from above the upper lid casts a shadow on the eye itself (A). Its thickness, and that of the lower lid, is due to a reinforcing plate of cartilage about the thickness and pliability of belt leather. Whenever the line of the lid is drawn, it should be imagined as traveling across the surface of a sphere.

The lower lid is narrower and less arched. Its upper surface, curved and upright like the rim of a teacup, catches bright light—often brighter than that on the eye. The rest of the lid surface, looking down more than up, is usually much grayer than the bright, top-facing upper lid. Notice how both lids—and the eyeball itself—curve away into shadow, increasing the illusion of roundness.



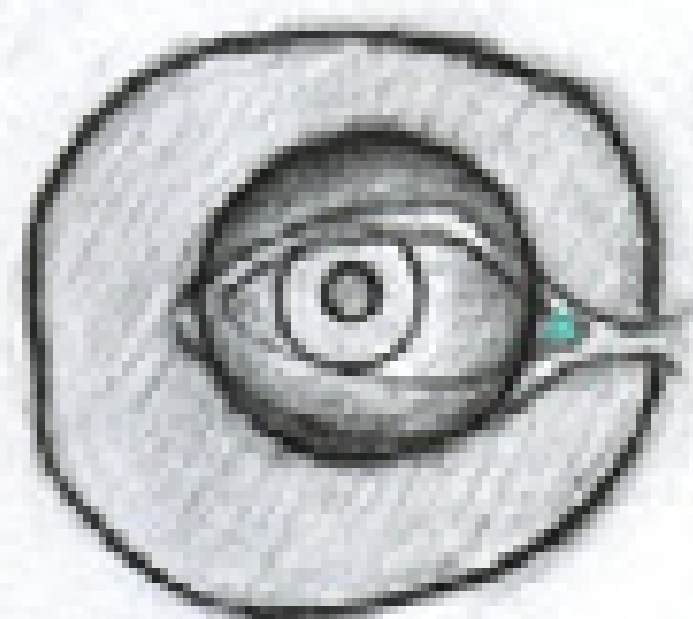
The three-quarter view is a good angle to see the curving structure of the lids. Beyond the eye is the inner eye corner, seen here as a small notch (B). It does not follow the ball but is set into the face, and so takes on its own direction, bending away from the rest of the eye. It often catches a good bit of shadow. The shadowed edge of the upper lid is quite dark—it's one of the darkest, heaviest lines in the face. It appears to overlap the lower lid line, then continues on, becoming a shallow skin fold (C).



When the eye closes, the upper lid does all the moving. The line of the closed lids is simply the original lower-lid line, its thickness increased by the joining of the eyelashes. More of the upper eyelid is exposed when it closes—part of its upper surface is usually hidden by a skin fold.

THE BALL IN THE SOCKET

The eyeball is set into a ring of bone, the orbit. What makes every eye unique is the particular way three forms—bony rim, eyeball, and underlying fat—assert themselves.



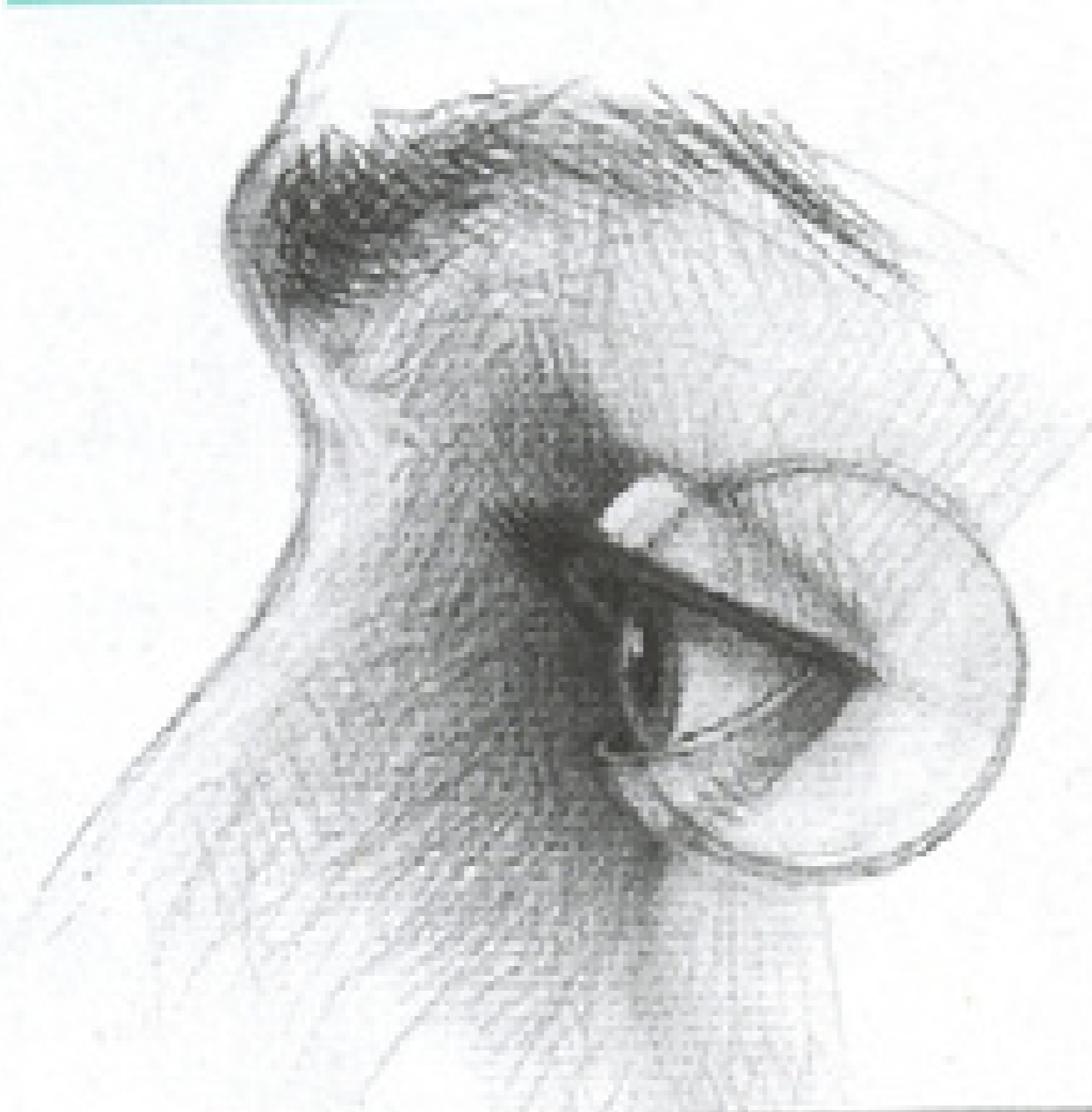
The inner eye corner is a U-shaped pit where the two lids join (A). It does not sit on the ball but starts where the ball ends. On Asiatic eyes this corner is hidden by a skin fold. The eyeball rests on a pad of fat; the less full the pad, the deeper set the eye. A pouch often forms above the outer corner of the eye (B), softening and partly hiding the upper lid.

The eyeball sits more-or-less centered in the hollow, bony orbit. The eyelids are anchored to the orbit at either corner by small ligaments, the inner of which is often visible (C). The size of the eyeball itself varies very little between one face and another. What makes eyes appear big or small is their relationship to their surroundings.

The curve below the eye (D) marks the end of the eyeball; the globe shape shows through the lid. The upper portion of the eyeball, on the other hand, is more hidden. The rim of the orbit (B) is very distinct along the nose and above and below the inner eye corner; it is usually softened around the outside corner.

In an older face, what's underneath begins to show through the surface. Here you can see the rim of the orbit the entire way around the eye, including the outer corner (F) where it is usually hidden. The entire upper eyeball shows through the lid. The skin has lost its elastic qualities, which smooth over these forms in younger faces.





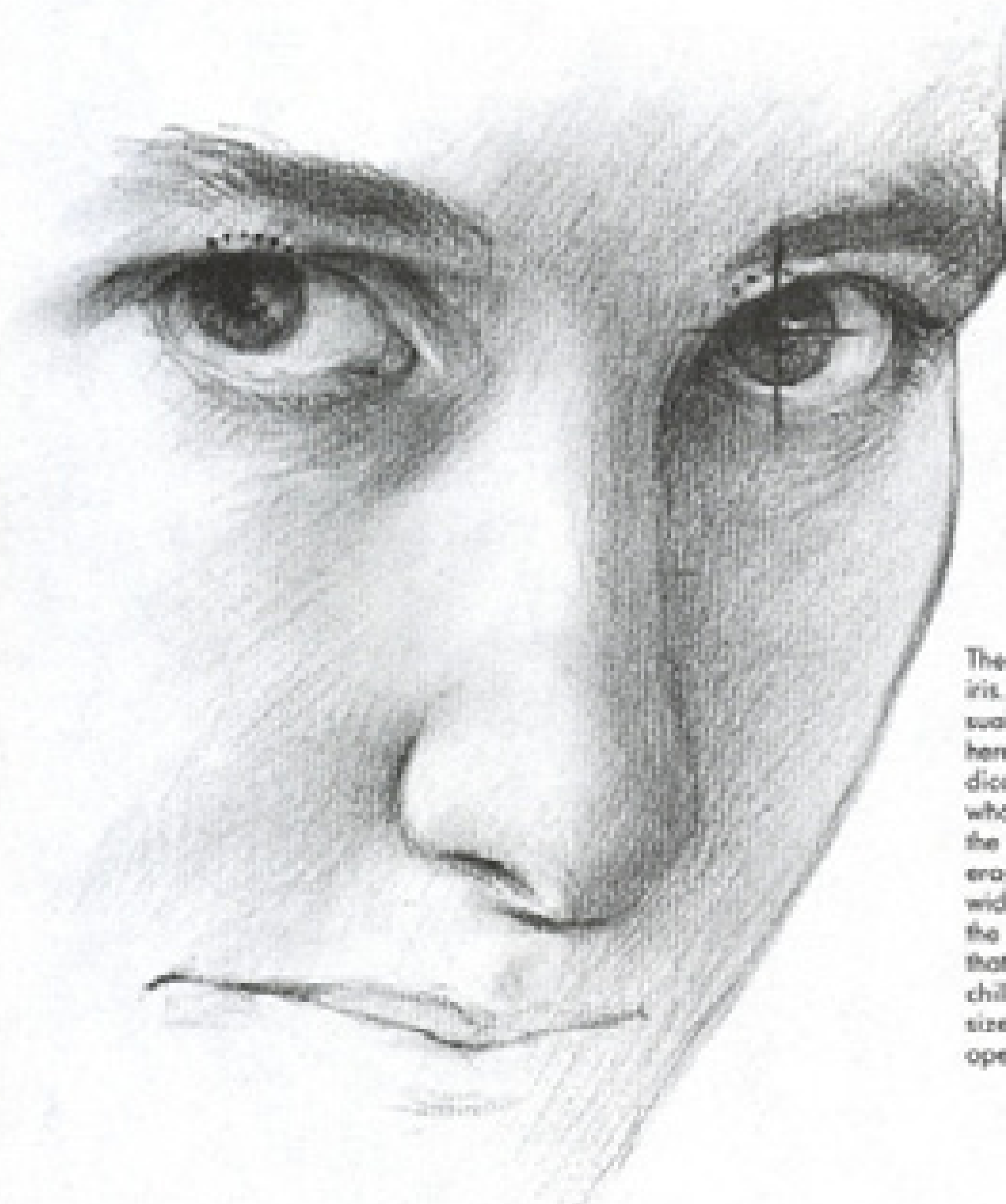
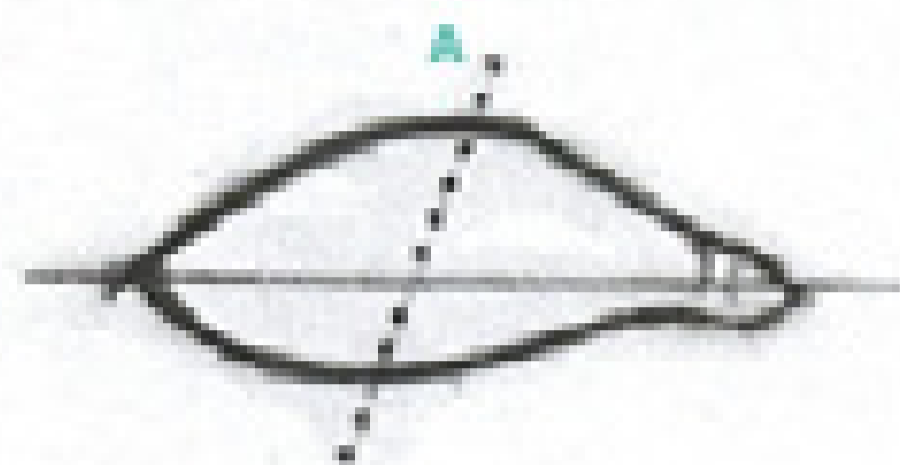
The circle represents the eyeball, most of which is hidden within the eye socket. The exposure of the eye in profile is very narrow; beginners tend to extend the eye corner too deeply toward the ear. Note the relative curvature of the lids: The upper lid is more arched and, because of its thickness, extends farther beyond the eyeball. The lower lid is thinner and flatter—closer to being horizontal.

In this study for an angel's head by Leonardo, the curving forms of the eyelids are rendered with particular clarity. Note arching of lids around the eyeball on the far eye, and the way the light (from above) separates the edges of the lids from the rest. The thick edge of the upper lid faces downward and is dark; that of the lower lid faces upward and is light. The lids themselves are shaded as full, rounded forms. Note how eye, upper lid, and lower lid all move into shadow together, following the tonal movement on the sphere underneath.



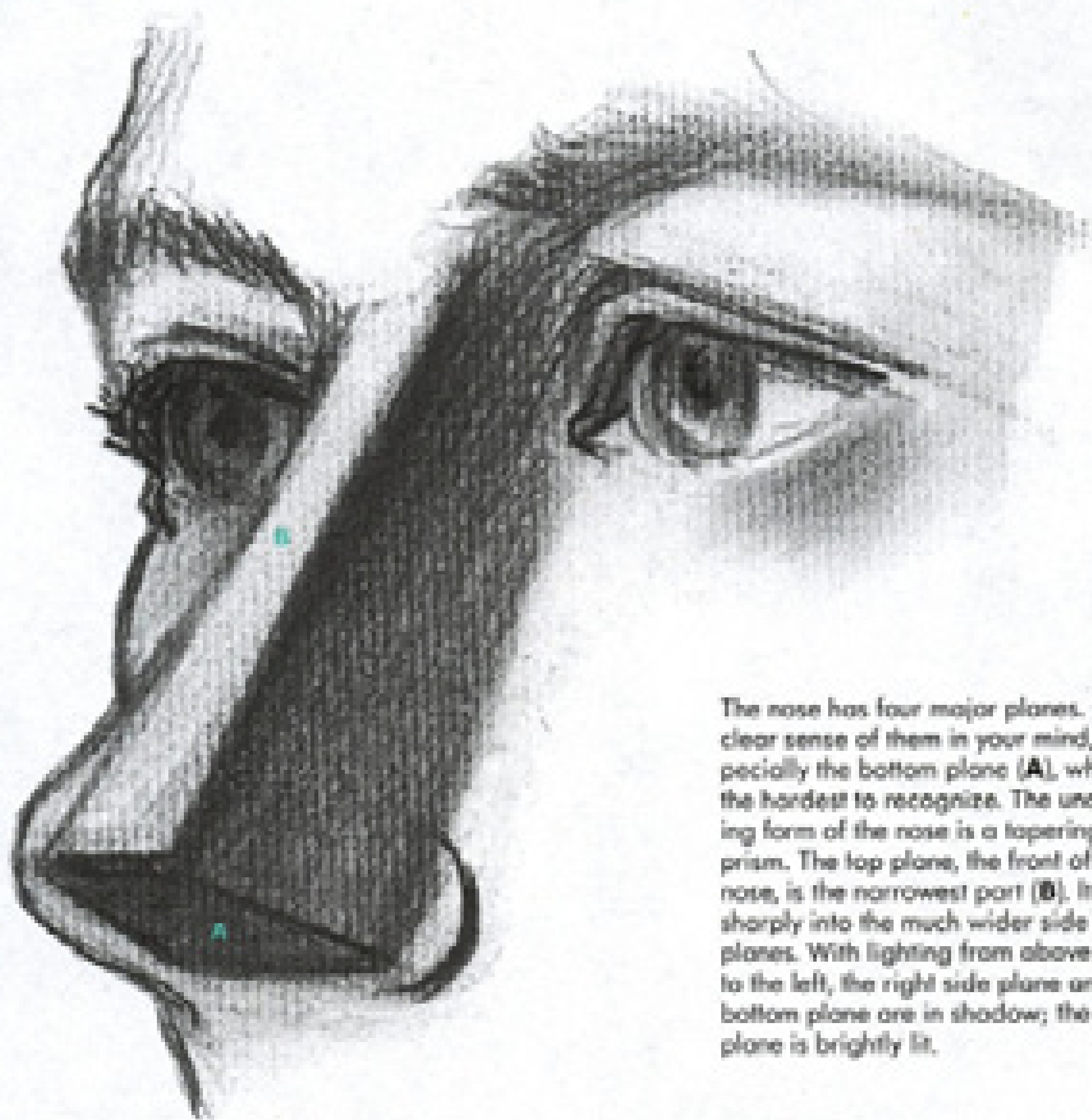
MORE ABOUT THE EYE

The eye is not symmetrical. The upper and lower lid margins have very distinct shapes. An imaginary diagonal (A) connects the high point of the upper lid with the low point of the lower; these points are not vertically aligned, as they would be if the eye was a simple oval. The high point is closer to the inside corner, the low point to the outer. Also, the inner eye corner, with its prominent notch, is always located below the outer eye corner, not just on Asiatic eyes, as is commonly supposed.



The pupil is always centered in the iris. And the iris should always be visualized as a full circle, even when, as here, it's partly cut off. Dotted lines indicate how the iris continues beyond what we see; crossed lines show how the pupil is centered. Iris width on average is about a third of total eye width. If the iris is drawn much wider, the eye takes on an infantile look, for that's the way it looks with very young children, where the already adult-sized iris dominates the small eye opening.

THE PLANES OF THE NOSE



The nose has four major planes. Get a clear sense of them in your mind, especially the bottom plane (A), which is the hardest to recognize. The underlying form of the nose is a tapering prism. The top plane, the front of the nose, is the narrowest part (B). It turns sharply into the much wider side planes. With lighting from above and to the left, the right side plane and the bottom plane are in shadow; the top plane is brightly lit.



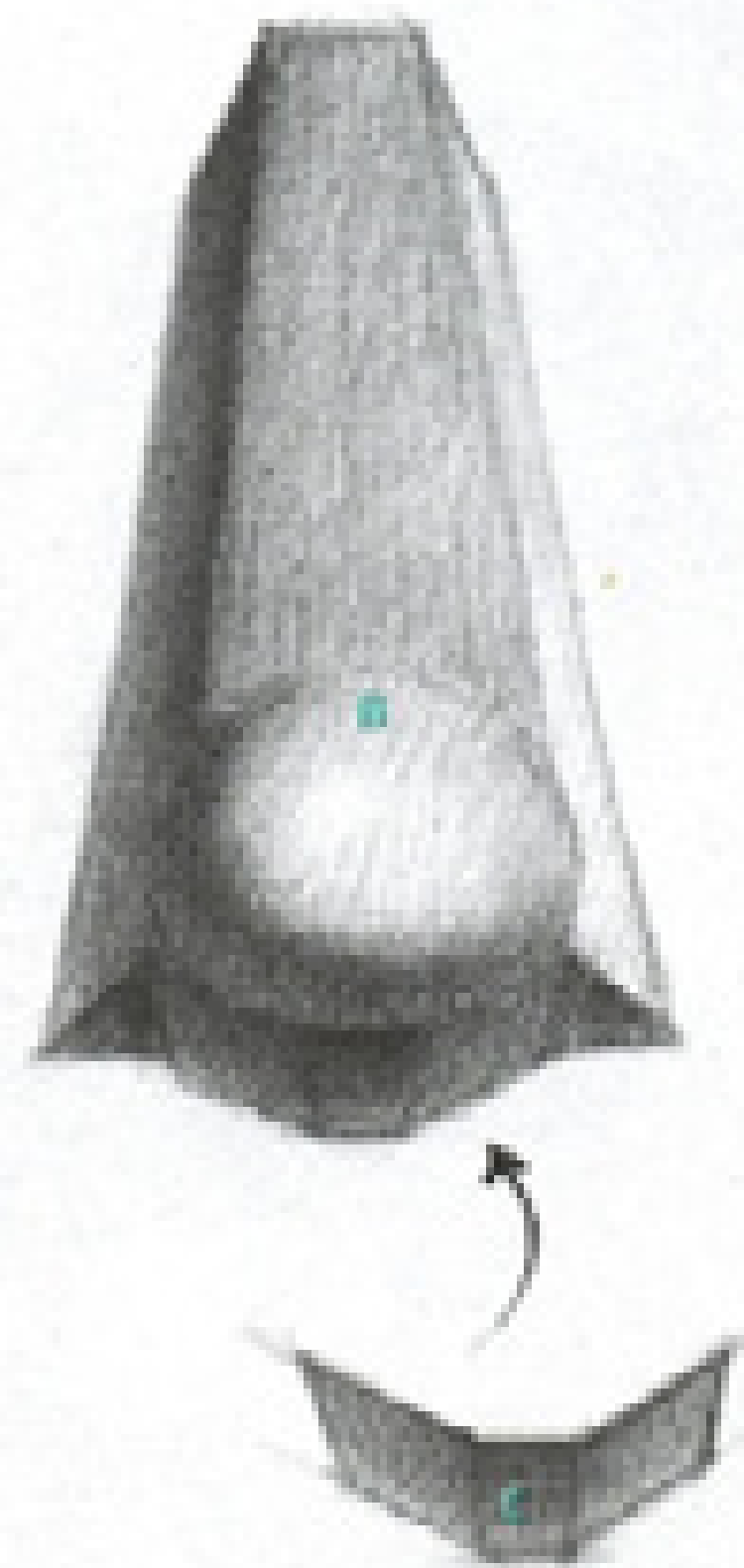
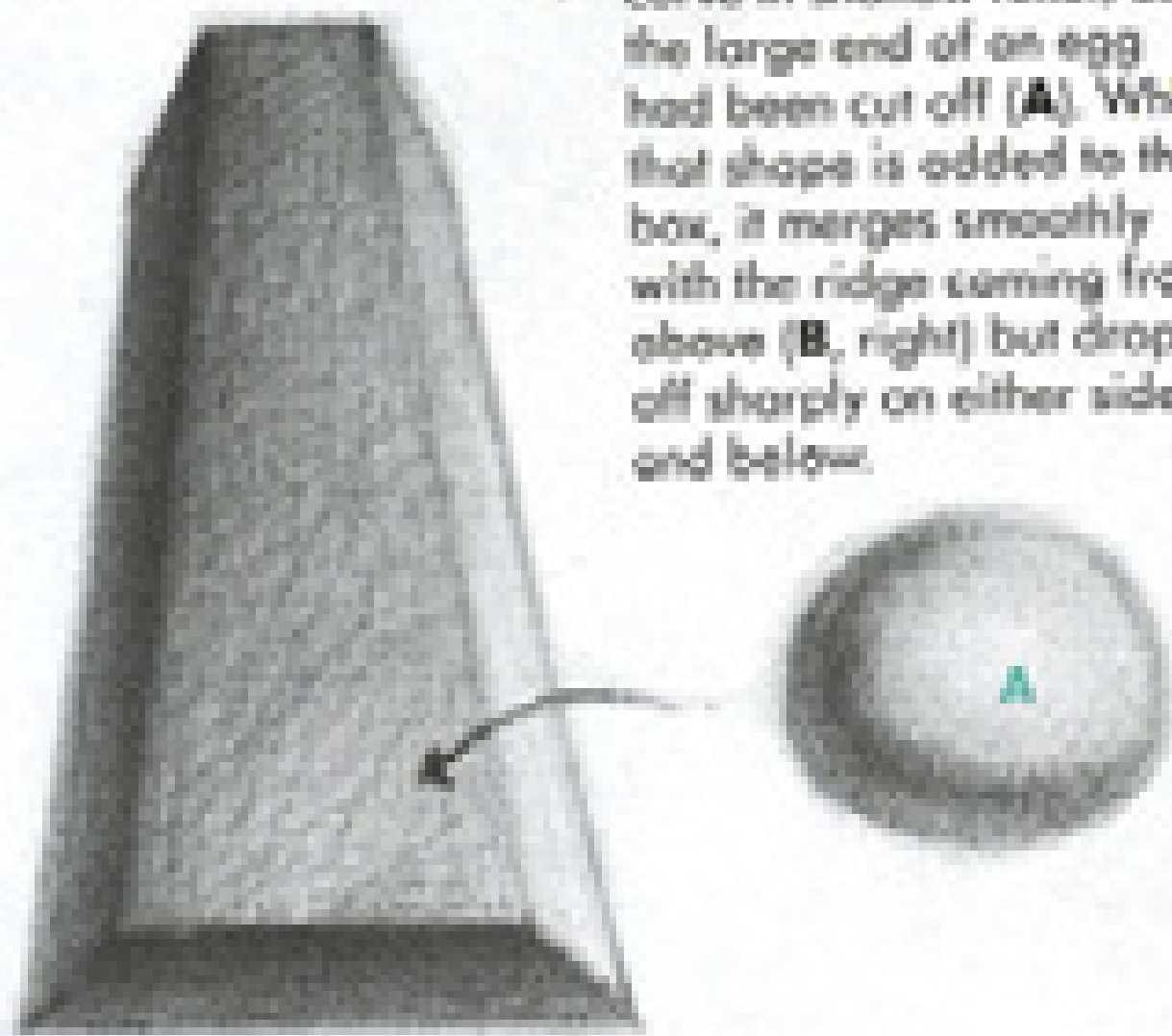
The African mask uses the same block form for the nose. When artists stylize the nose, the prism is frequently used; it's so close to the natural form that it seems an obvious choice.

CONSTRUCTING THE NOSE TIP

The tip of the nose is the most complicated part to draw. It's composed of several separate forms, all built around the underlying tapered block (shown here with the light coming from the upper right).

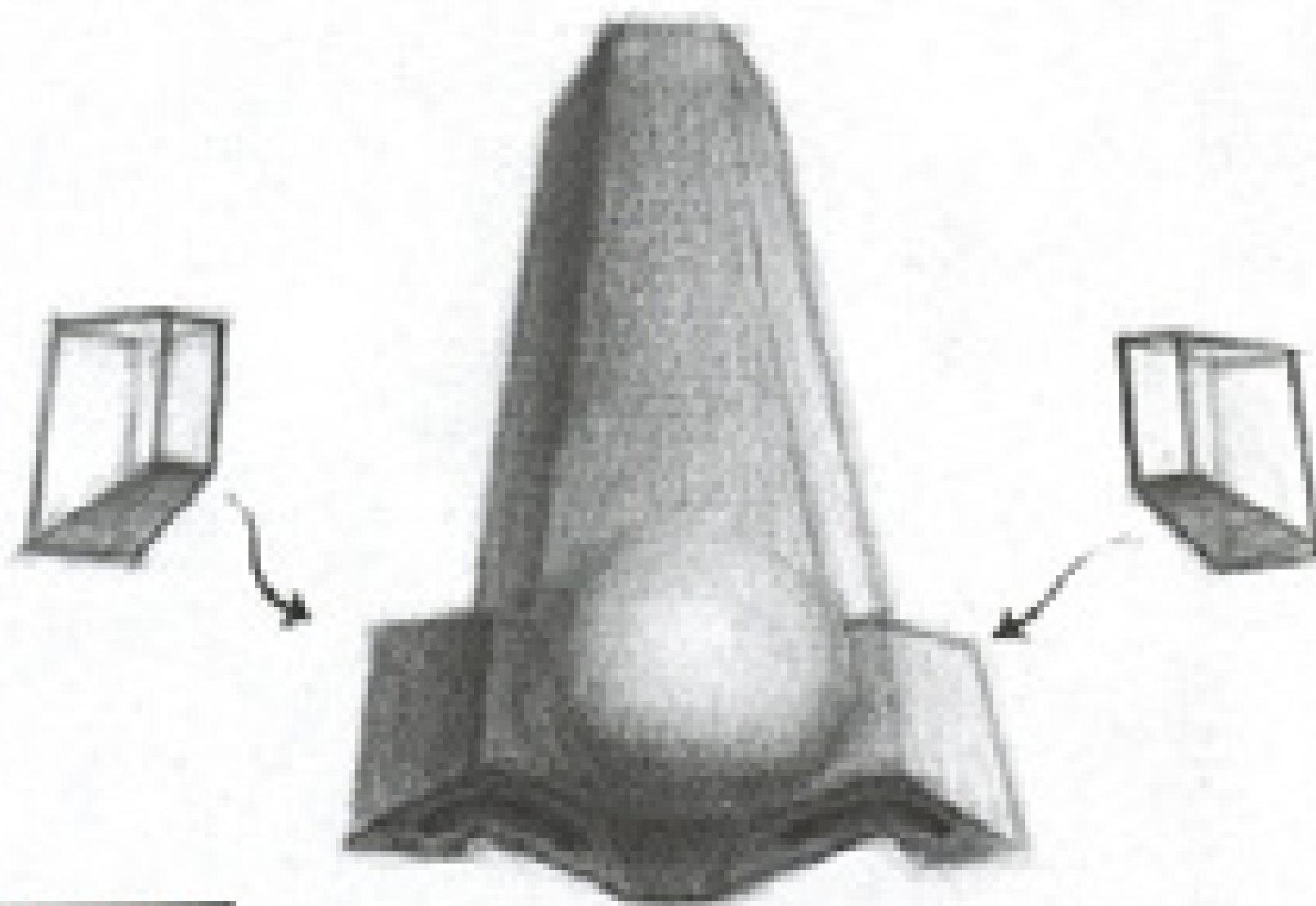
THE TIP

The nose tip is rounded at the very end but is flattish along the sides. It's not exactly a ball; it's more like a curve in shallow relief, as if the large end of an egg had been cut off (A). When that shape is added to the box, it merges smoothly with the ridge coming from above (B, right) but drops off sharply on either side and below.



THE SEPTUM

Underneath the nose tip is the septum, a ridge of cartilage that connects the nose to the upper lip. A simple way to visualize the septum is as the covers of an opened book, with the flat spine connecting the two fitted sides (C). The septum covers the center part of the underside of the nose and contains part of the nostril opening (bottom).



THE WINGS

The wings can be thought of as two wedges, like wood-splitting blocks, added to the prism alongside the tip. Though they are rounded off in life, they retain their wedge shape. The nostrils fall partly on the underplane of the wedge, partly on the underplane of the septum; avoid digging them out of the side of the nose (as in illustration on p. 36).

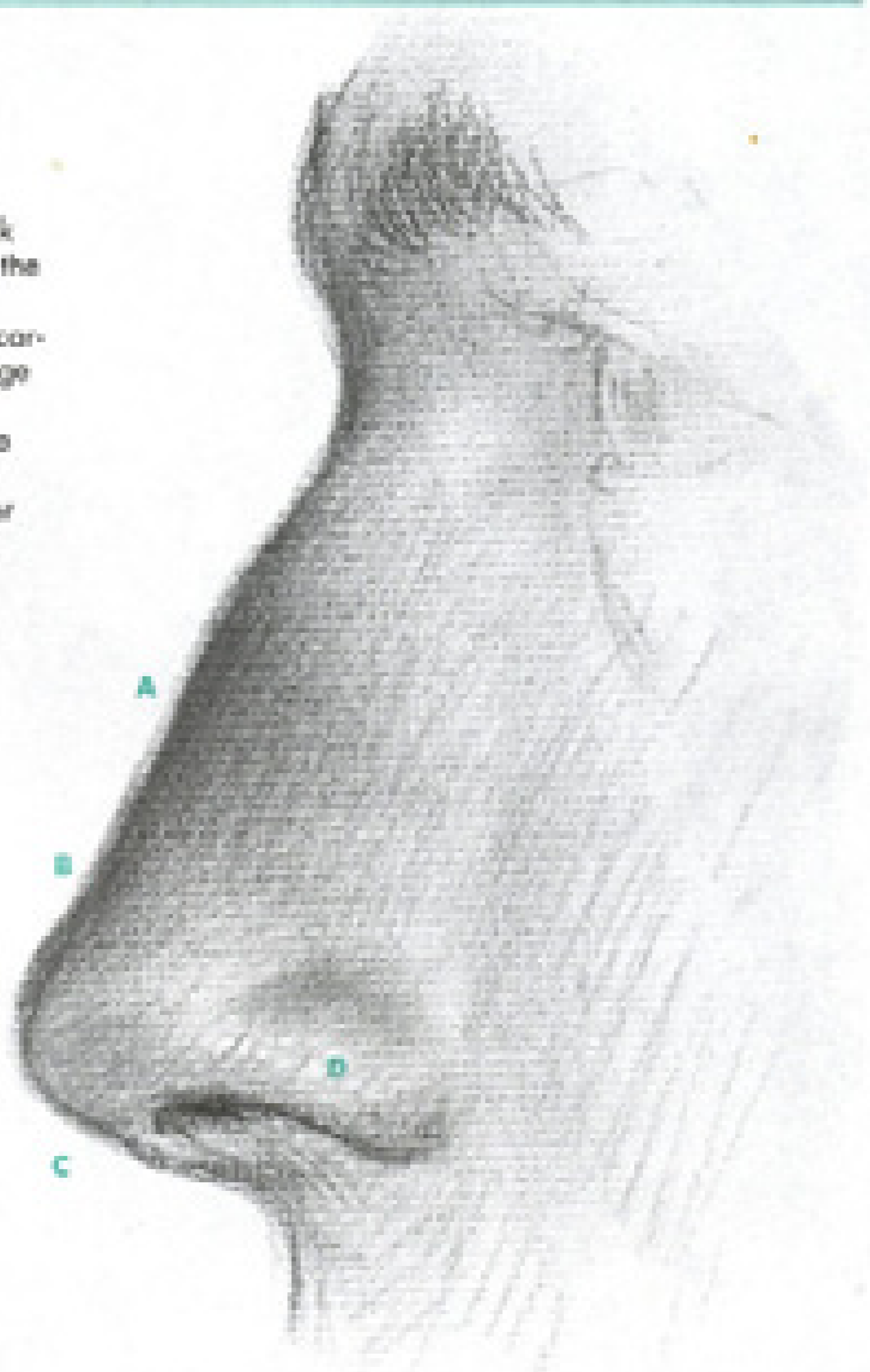
MORE ABOUT THE NOSE

A. At the point where the bone meets the cartilage, look for a change in direction and/or a bump. From here to the tip is all cartilage.

B. This is a break where the cartilage of the tip meets cartilage of the shaft. There is almost always a slight change in direction—the tip curves out more.

C. The septum starts here: curved piece, separating two nostrils and making the transition to the upper lip.

D. The wing is mostly fat, not cartilage, giving it a softer contour, softer edges.



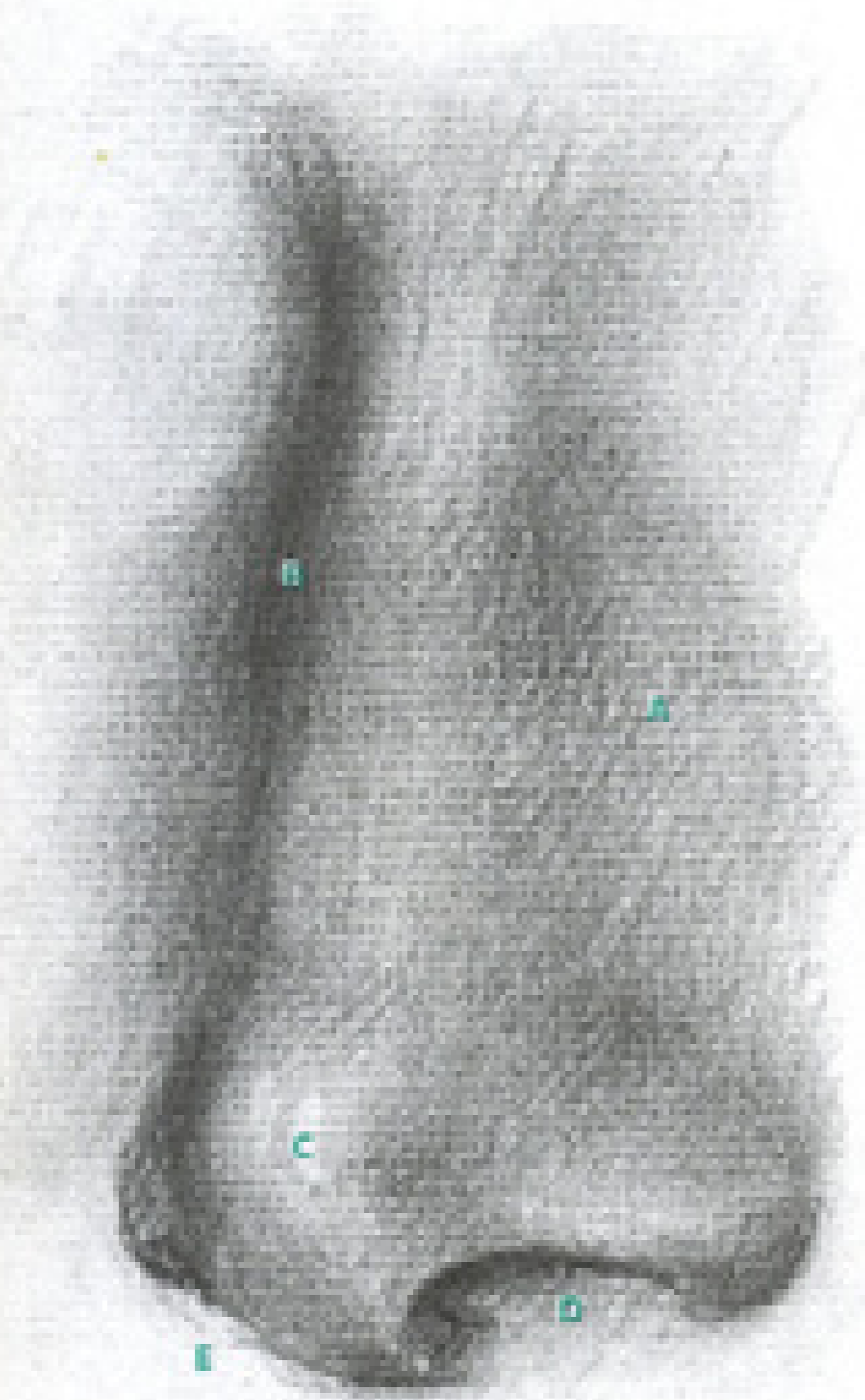
A. Below the level of the orbit, the side plane of the nose begins to swell out. The base of the nose is widest where the bone meets the cartilage. The form is gently rounded, like the section of an egg. The transition from top to side is much sharper than from side to face.

B. Shadow sharply defines the far side of the nose. The near side is not in shadow, but, as light is more to the front than side, the side plane is slightly grayed down. No matter what direction the light is from, if there is only one main source, every major plane will have a different value.

C. The tip is usually the location of a sharp highlight, one of the brightest on the face.

D. The nostril looks down, not sideways. Near edge of the nostril is sharper than the far edge, which is closer to the face.

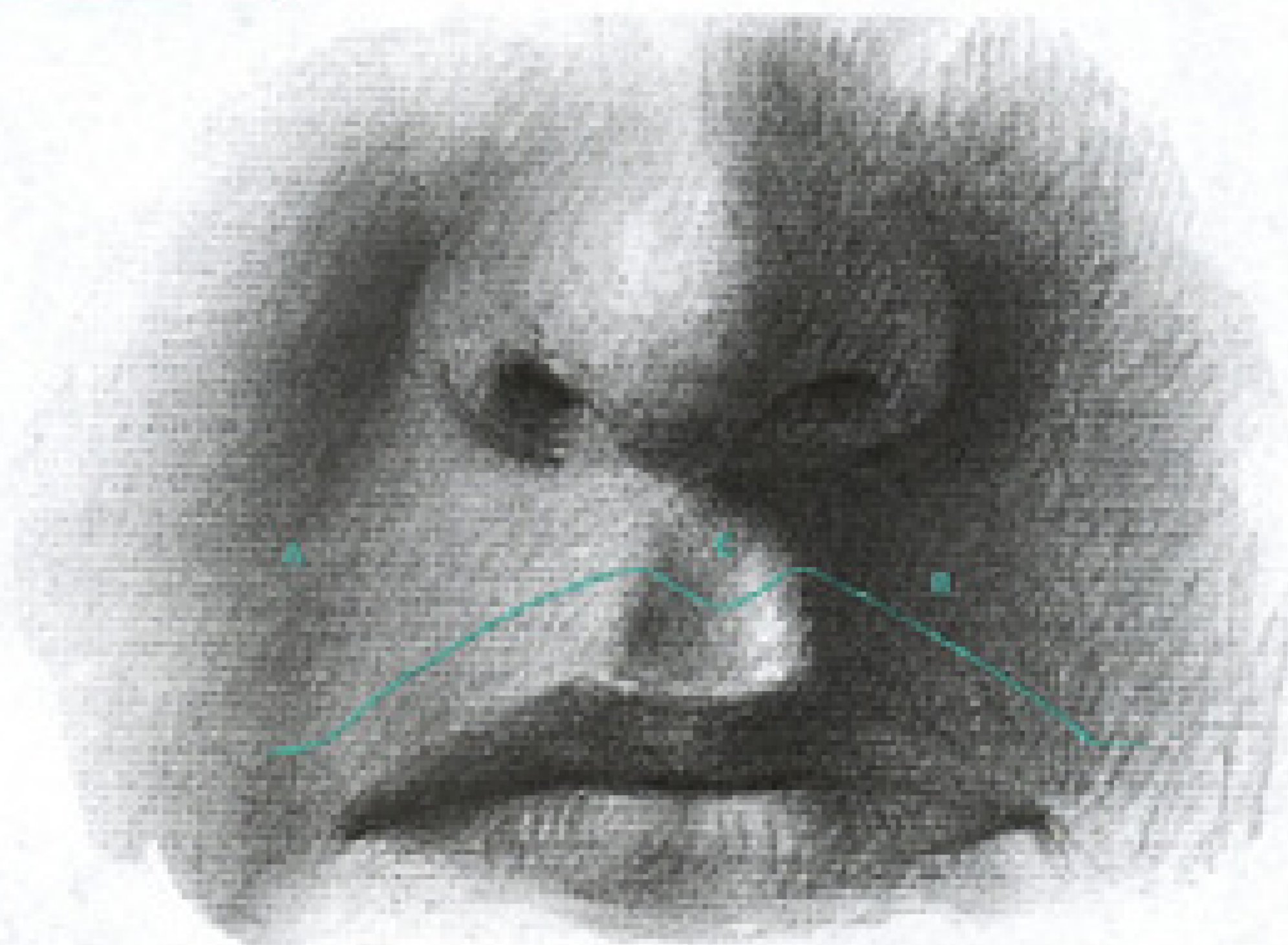
E. Far nostril just shows beyond the tip; as the head turns, it disappears completely, well before profile position is reached.



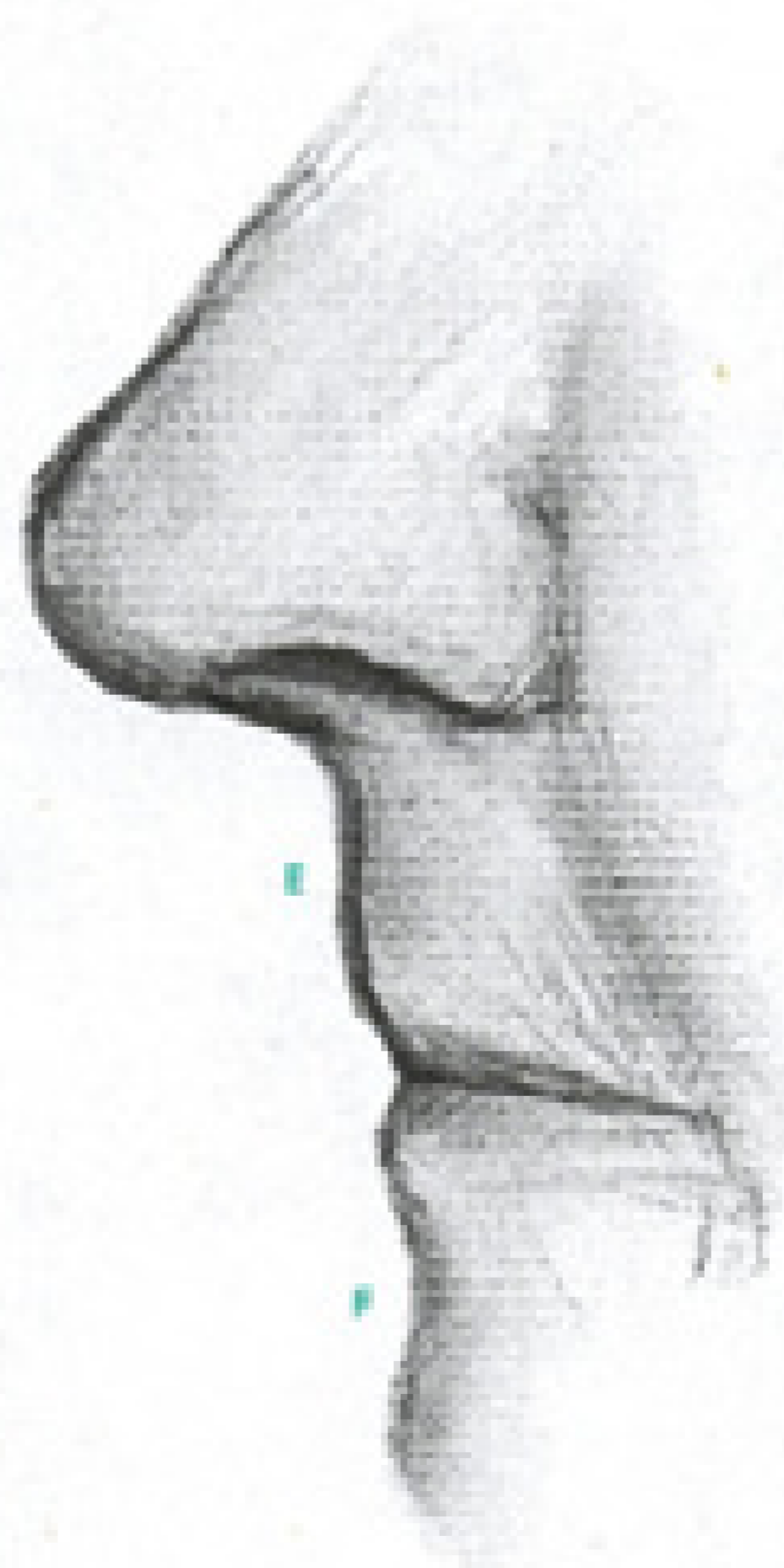
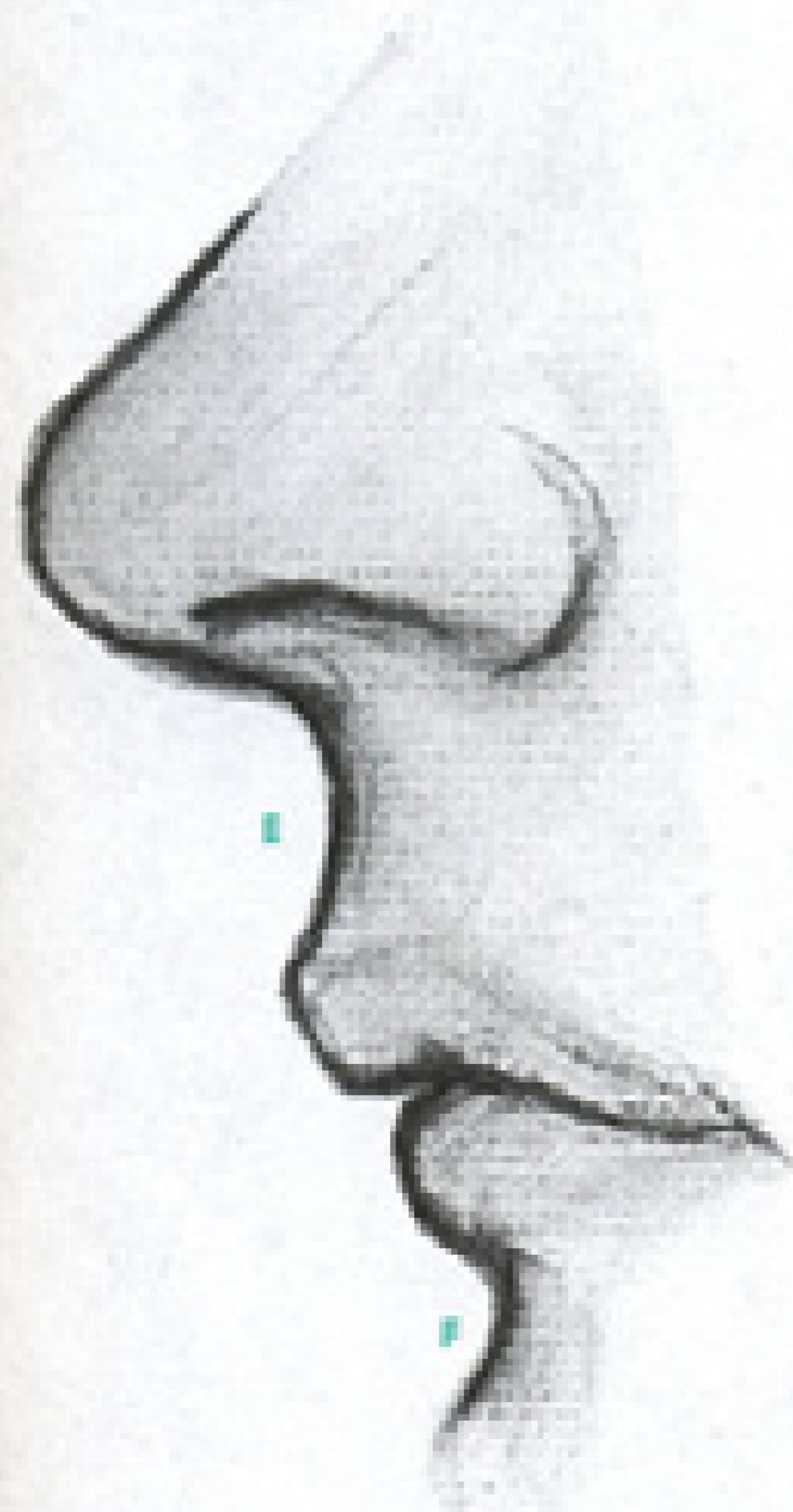
THE FOLDS ABOVE THE MOUTH

The area below the nose is always marked with three strong divisions, like folds in a curtain. The folds are draped over the curving, forward-tilted form of the upper jaw beneath. The "curtain" ends where it joins the cheeks, a border often marked by a crease. The three folds line up exactly with the three parts of the base of the nose and the three sections of the upper lip; this is due to the common origin of all these forms in three tiny subdivisions in the embryo.

A. Almost invisible on a younger face, the curved border between cheek and upper lip deepens as we age. The line—which also marks an important change in plane—is called the nasolabial fold. It always



CONTOUR LINE OF UPPER LIP



starts alongside the nose wing and ends just opposite the mouth corner.

B. With strong light from the left, this section of upper lip will always be in shadow—look for slight tonal change where it meets the cheek.

C. Groove down middle of lip, called the *filtrum*, gets wider as it descends. Note that outer edges of groove line up with peaks in upper lip, and center lines up with the dip.

As we age, the lips and their surroundings change. The line of the *filtrum* (E), concave in profile in a younger face, loses its curve and conforms more closely to the form of the skull beneath. It becomes either straight or slightly bowed outward, as here. The indentation below the lips may also be flattened out (F). The lips themselves thin and become less shapely.

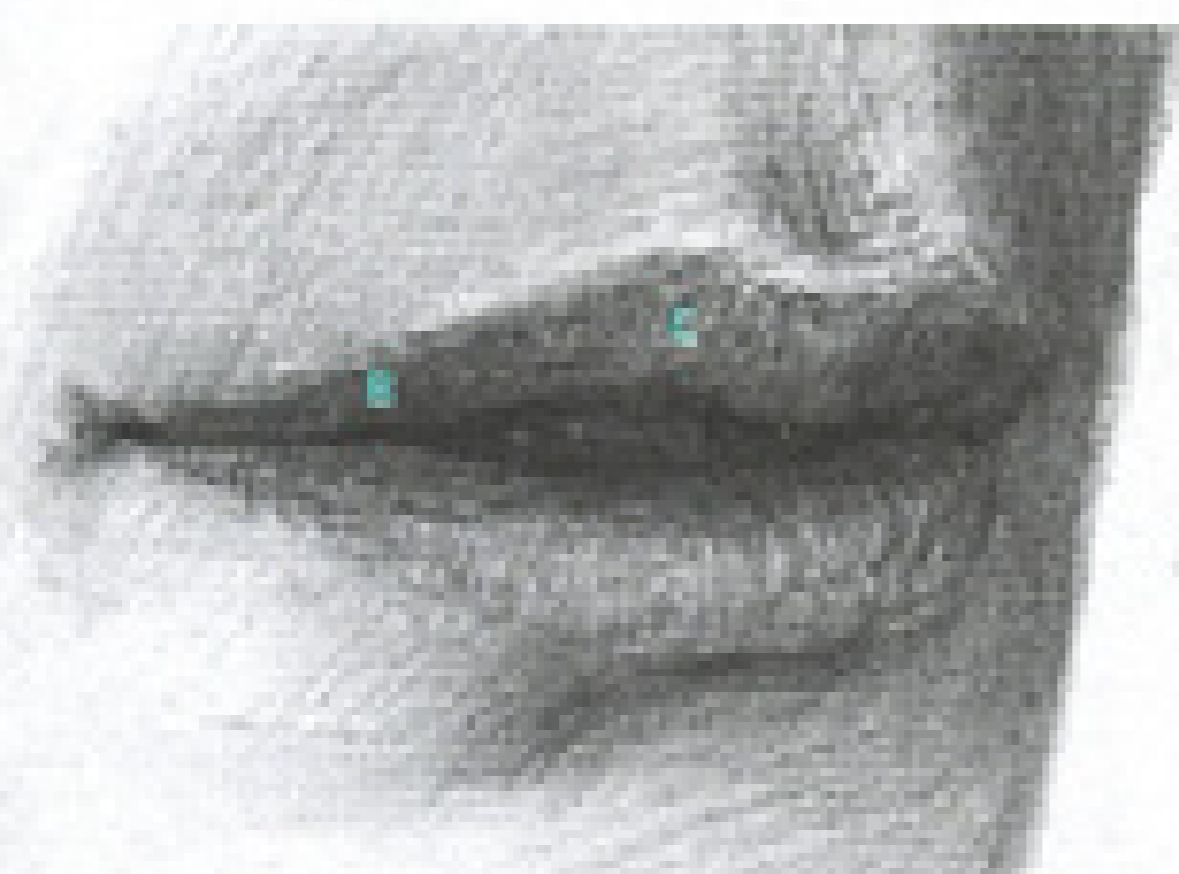
THE FORMS OF THE LIPS

The upper lip is more complex than the lower. Its three sections, linked to the three planes of the skin above, are reflected in both the stretched M-shaped upper outline and the M-line between the lips—the peaks of the M are where the sections join.



Schematic version of planes of upper lip: keystone-shaped control part and two arching wings. Keystone projects more forward than the rest and drops down farther; there's an indentation in lower lip to receive it (A). Its inner planes are usually not well defined. The triangular wings are curved from top to bottom and side to side.

Skin curls upward just above lip line, leaving a "white edge" along the border of the lip. The border of the entire upper lip is usually distinct. The lower lip is only well defined in center, not so along outside. The borders of the upper lip are typically shaped like the legs of a radically stretched M—the Cupid's bow. Upper edge is a more angular version, the lower edge less. Almost every lip, even those that seem straight across, contains elements of the bow. In drawing the lips, artists usually start with the line between the lips and work outward. This is perhaps the heaviest line in the face.



The three parts of the upper lip. The central notch is like a continuation of the groove above; the peaks to either side are in line with the ridges along the edge of the filtrum. The upper lip is usually darker than the lower, as it faces away from the usual above light direction. Here it's clear how the lip faces more downward in the rear corner (B), then turns more upright, and lightens, toward the middle (C). A shadow is cast on the lower lip.

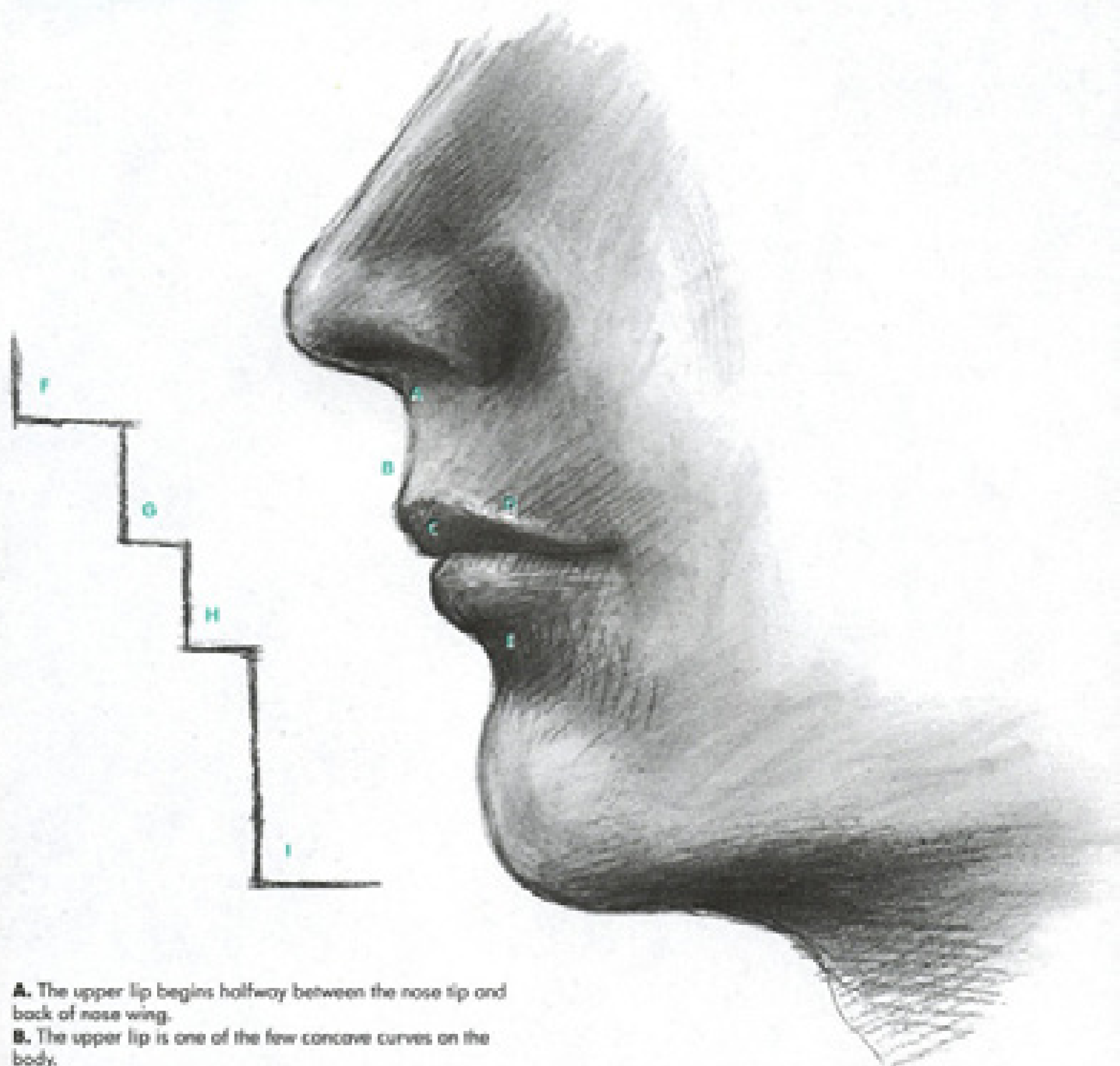


There are two major forms of the lower lip, each shaped like an egg with a bit of a tail. The slight groove between is where the notch of the upper lip sits. Upper portion of the lip is usually light in value; the lower portion moves into shadow with an egg-like edge.



The lower lip is an extension of a shelf that comes out from the chin (D). The shelf is hollowed-out in the middle and rounded at the ends; it's shaped like a half a bowl with a dent in the center. At (E), the change is only a color difference, not a plane change. For that reason artists often break the outline at this point when drawing lower lip.





- A.** The upper lip begins halfway between the nose tip and back of nose wing.
- B.** The upper lip is one of the few concave curves on the body.
- C.** The upper lip usually overhangs lower, reflecting the overhanging upper teeth. The upper lip faces downward, usually catching a lot of shadow.
- D.** The shape of the upper lip in profile is exactly half of the Cupid's bow: one dip, one peak, and one long slope to the corner.
- E.** Sharp undercut below middle of lower lip with the outer edge only vaguely defined.

Descending from nose each form steps back:

- F.** Nose
- G.** Upper lip
- H.** Lower lip
- I.** Chin

THE PERSPECTIVE FACTOR

For some reason people are mortally afraid of the subject of perspective in a way they never are of anatomy or proportion, both equally technical. It's all how you approach it. Perspective is basically the science of how point of view affects the way we see the physical world.

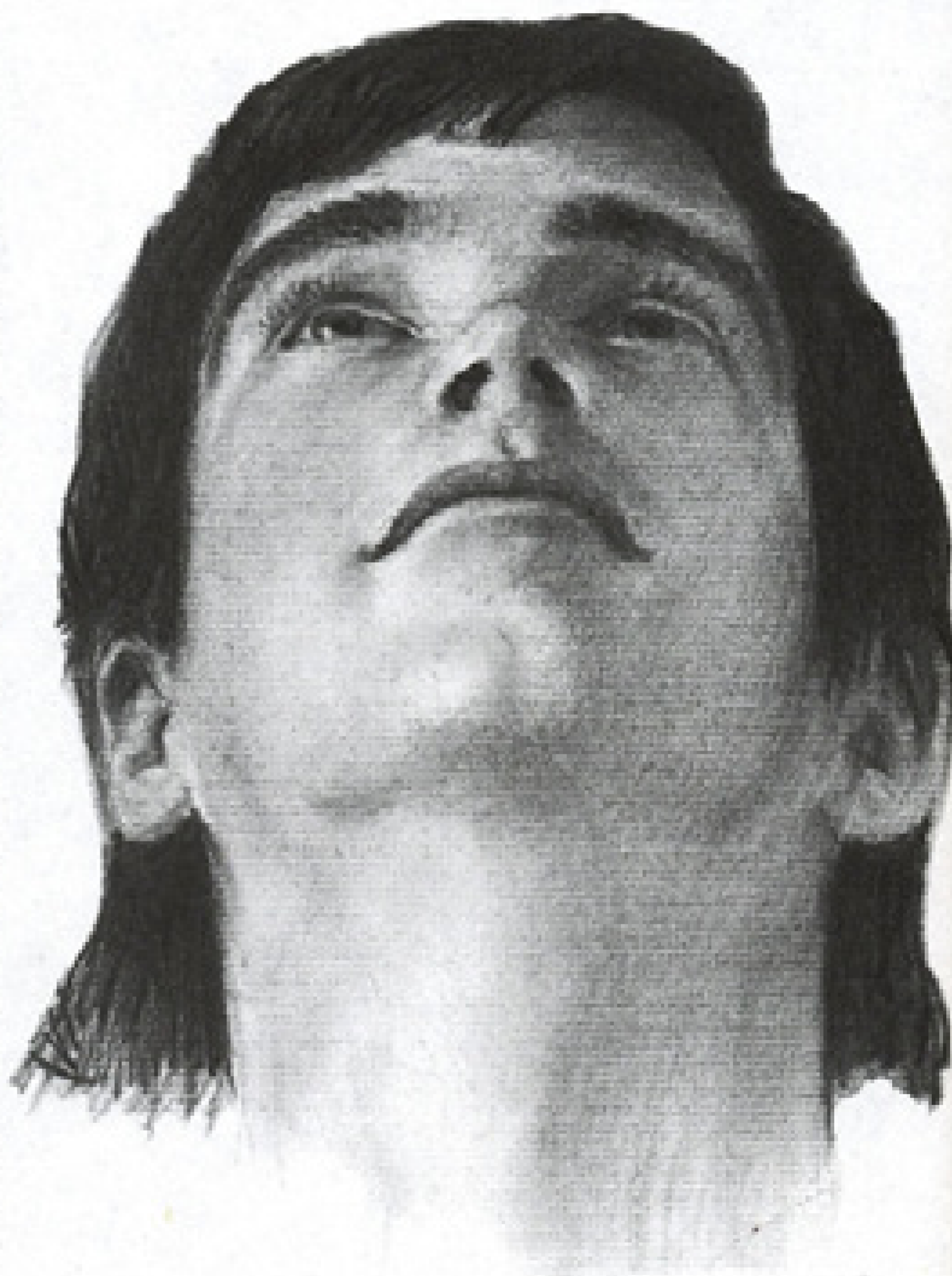
Point of view affects the way the mouth looks in two main respects:

1. The curve of the line between the lips is straight when the mouth is on our eye level, an upward arc when the head is tipped up, a downward one when the head is tipped down. This same principle governs the way any curve looks in perspective. Think of it this way: When the head is tipped down, you have to give the mouth a "smile" to make it look like it has no expression at all.

2. The difficulty of drawing three-quarter views of the mouth is also a factor of perspective. It's the principle of foreshortening: objects appear shorter as they turn sideways to our view. In a three-quarter view, the far side of the mouth is going around a much tighter turn than you might expect. The turning of the teeth is very abrupt here, and the mouth follows the turning of the teeth. The near half of the mouth will appear three or four times longer than the far part because the far half is seen practically edge-on; that is, almost completely foreshortened. Beginners tend to make both halves of the mouth equal no matter what the view, leading to grievous results.

The bottom line of this chapter is that facial expressions are only as effective as the head they're on. First, one masters the head, then the features, then the expressions. And how is this mastery achieved? How do you get to Carnegie Hall? The same way—practice.

PERSPECTIVE AND THE MOUTH



The mouth curve is greater than the curve of the face surrounding it.

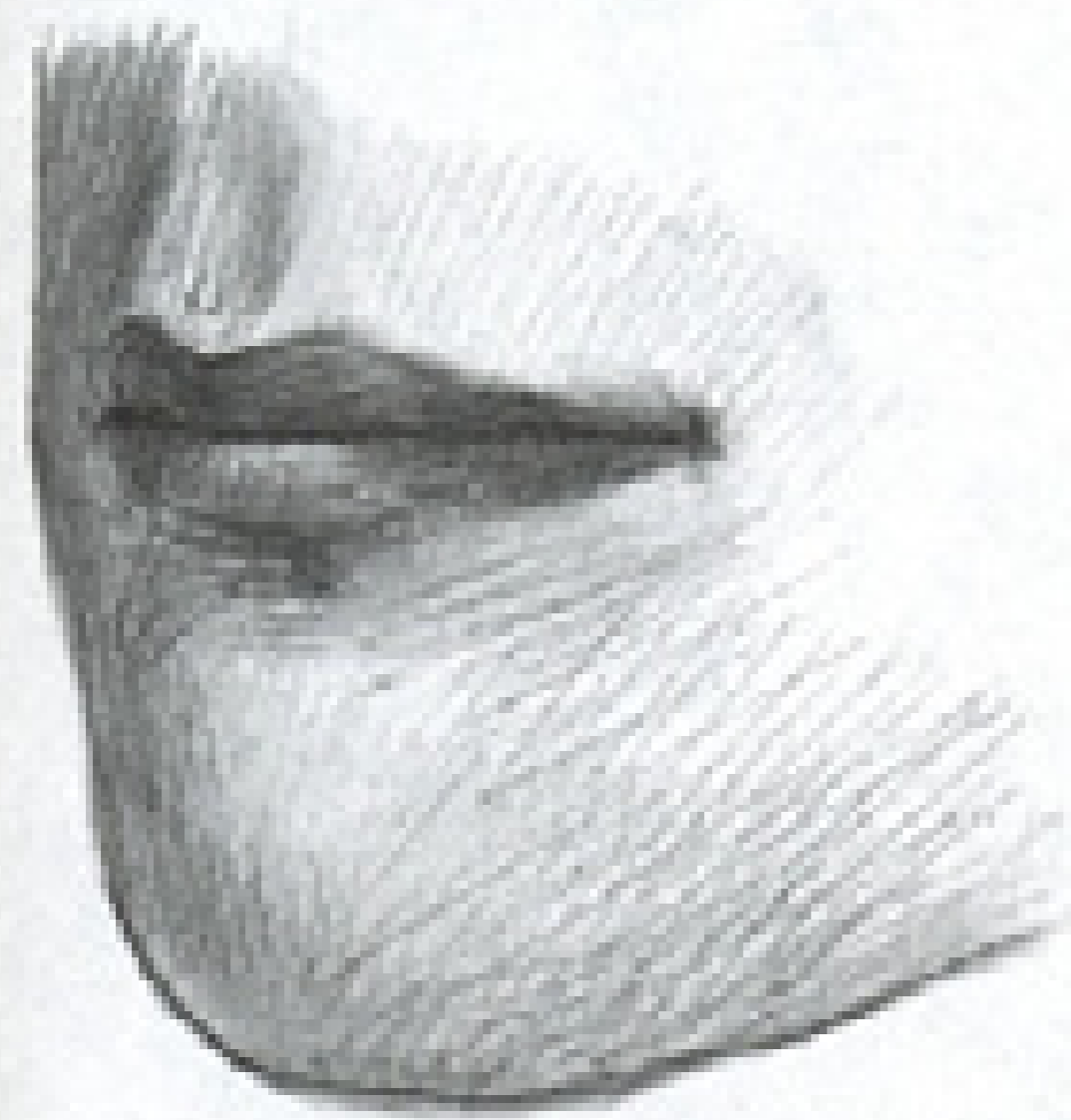
PERSPECTIVE AND THE MOUTH

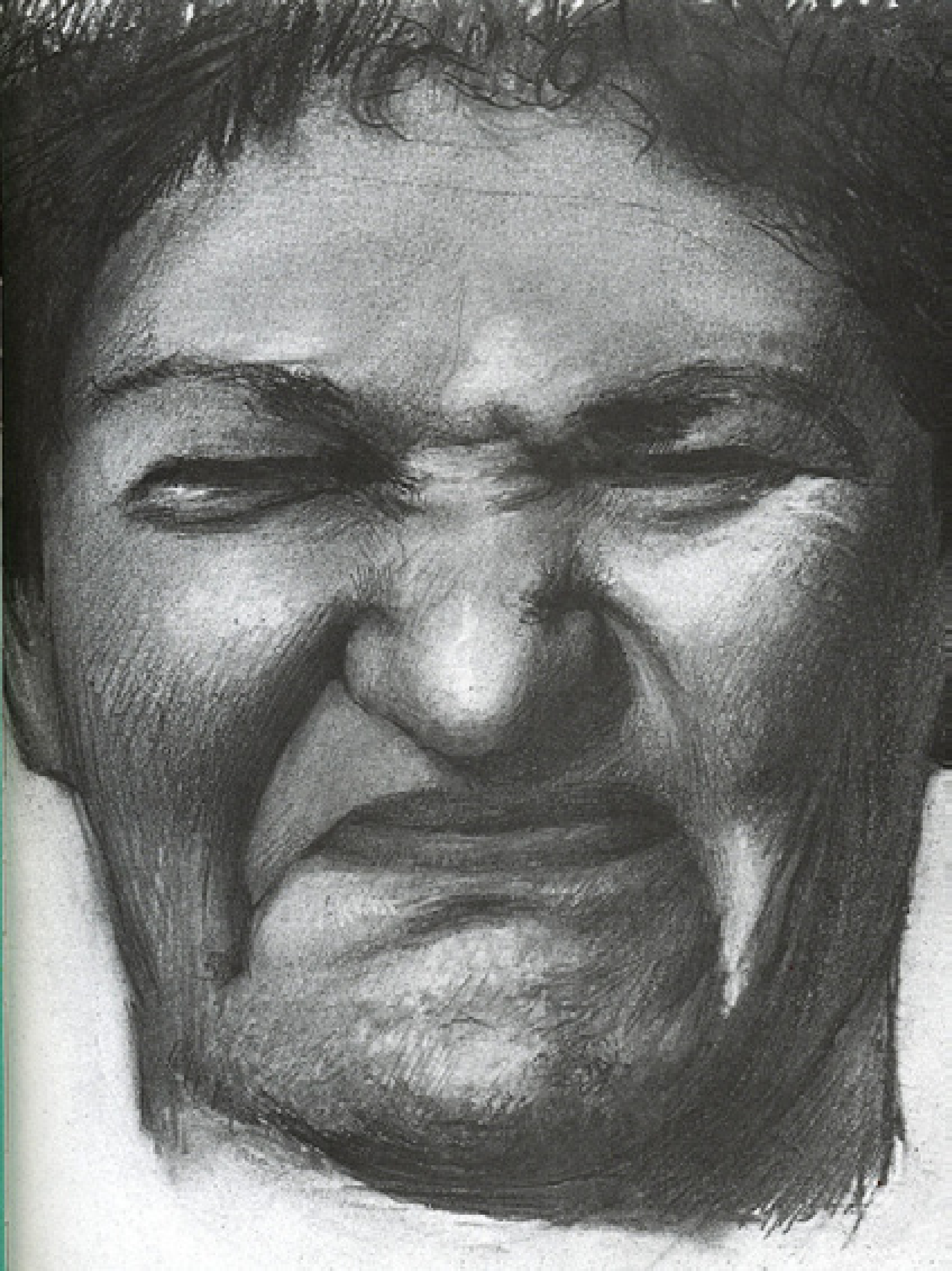


Perspective affects the mouth in two ways. The line between the lips is curved, but when the head is level, the curve appears straightened out (A). When the head tips up or down, however, the curve becomes clear. When the head tips up, the curve is highest in the middle and lowest at the outer corners, like a frown (opposite page). When the head is down, the curve is lowest in the middle, like a smile (B).

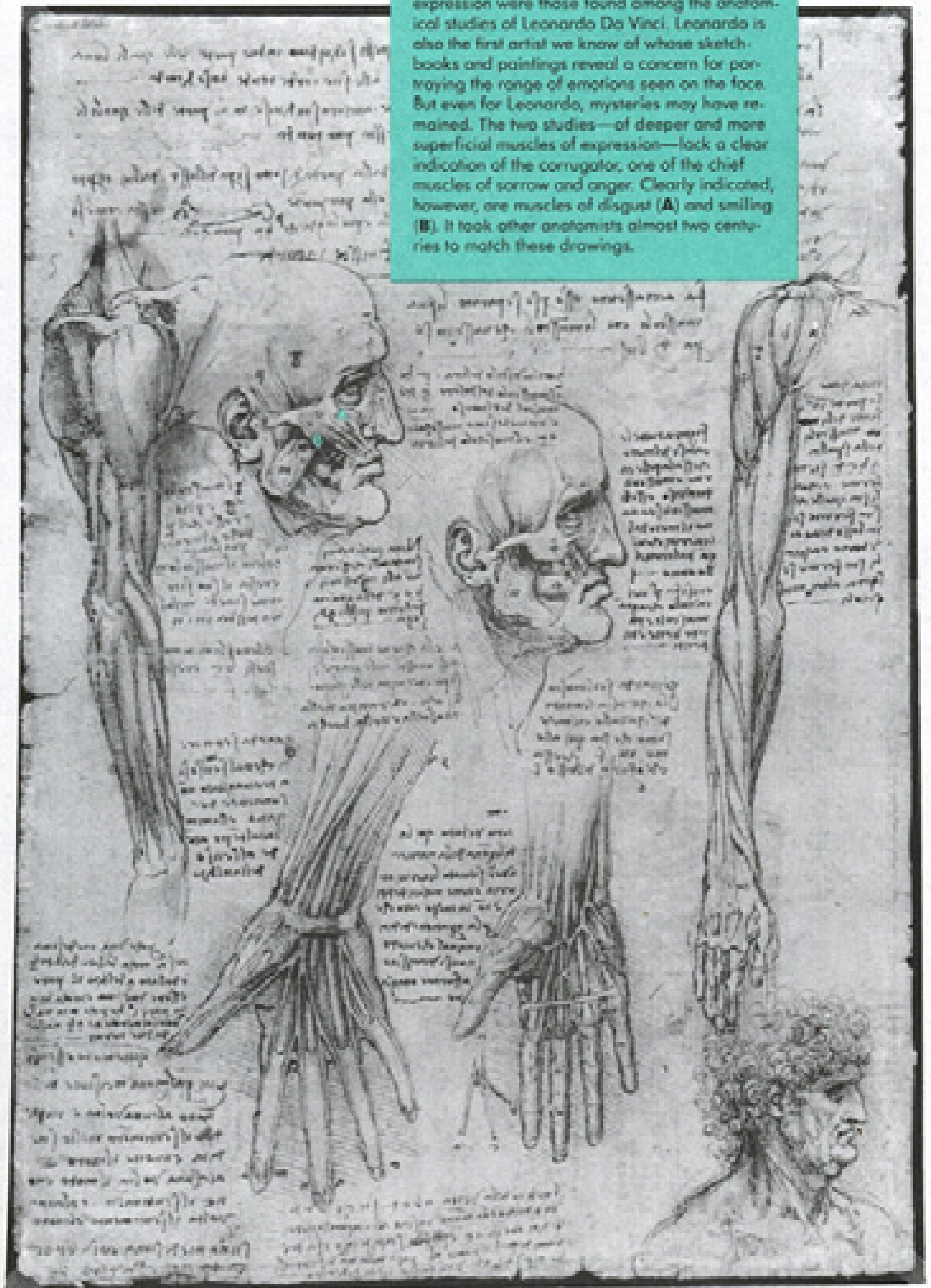


The lips are much shorter on the far side than the near side in three-quarter views, because they turn such a sharp corner.





The earliest known drawings of the muscles of expression were those found among the anatomical studies of Leonardo Da Vinci. Leonardo is also the first artist we know of whose sketchbooks and paintings reveal a concern for portraying the range of emotions seen on the face. But even for Leonardo, mysteries may have remained. The two studies—of deeper and more superficial muscles of expression—lack a clear indication of the corrugator, one of the chief muscles of sorrow and anger. Clearly indicated, however, are muscles of disgust (A) and smiling (B). It took other anatomists almost two centuries to match these drawings.

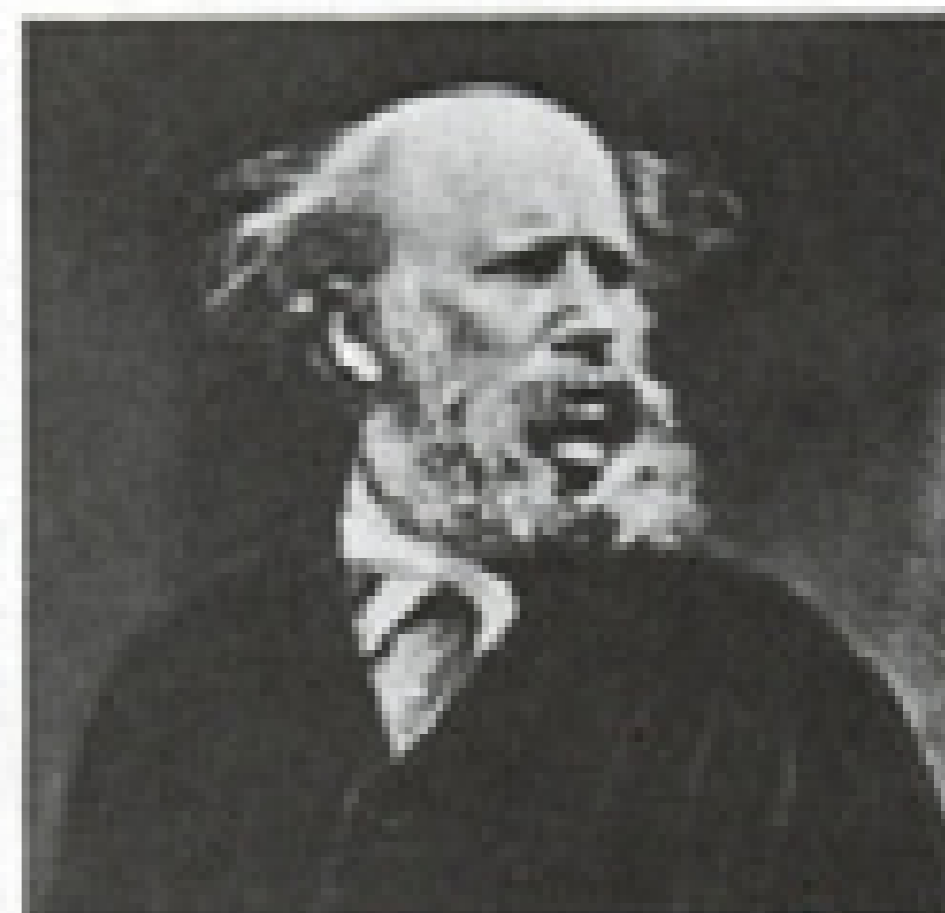


THE MUSCLES OF EXPRESSION

We have ways of making you laugh. Dr. Duchenne of Bologna, a nineteenth-century French scientist, became famous for his explorations of muscle function using electrical stimulation. In his book *Mécanisme de la physionomie humaine*, he illustrated the actions of many of the facial muscles by photographing subjects whose faces he "stimulated" with electrified needles (it's said to be a very unpleasant feeling). Here Duchenne demonstrates the action of the zygomatic major, touching the ends of the muscle—on the zygomatic arch—with his electrodes. The muscle reacts by contracting, pulling the mouth into a smile.



Duchenne used his technique to attempt to demonstrate emotions as well as individual muscle actions. Here multiple electrodes are employed, applied to both the neck and the forehead, to illustrate the expression of fear. The muscles activated include the corrugator, the frontalis (forehead), and the risorius and platysma (neck).



Several actors portraying "anger" from Charles Darwin's *Expression of Emotions in Man and Animals*. Darwin's book remains the best written on the subject. Much of his information came from his own meticulous observations of family and neighbors. But the book's illustrations—though full of period charm—are not its strong point. Even today, good photos of facial expression are not plentiful, and Darwin made what use he could of his limited sources; his best pictures are those from Duchenne.

HOW FACIAL MUSCLES ACT

In what they do, and how they do it, the facial muscles are different from other muscles in the body. Most of our muscles, like the biceps in the arm or the hamstrings in the leg, stretch from one bone to another, usually across a joint. When these muscles contract, the bones involved are brought closer together, often bending at a joint. Muscles always pull things together; it's the only way they work. They shorten, and their ends approach. They never push. For example, when the biceps contract, the radius in the forearm is pulled closer to the humerus in the upper arm, and the arm bends. When the hamstrings contract, the tibia approaches the femur, and the leg bends.

Facial muscles, however, usually have just one fixed end, attached directly or indirectly to the bone of the skull. The other end of the muscle is stitched into the skin (or into another muscle that attaches to the skin). When a muscle of expression contracts, skin, rather than bone, moves. The portion of skin near the ends of the muscles is pulled in the direction of its attachment on the bone.

Take the smiling muscle, the *zygomatic major*. Its bone-end attachment is on the cheekbone, just below the outer corner of the eye. Then the muscle stretches diagonally downward toward the mouth, where it attaches indirectly to its outer corner. When it contracts, the corner of the mouth rises up toward the cheekbone, and we smile. This is typical of the way most of the muscles of expression work.



Facial muscles do their work by pulling on the skin, unlike most other muscles, which are designed to move the bones. When a facial muscle contracts, it creates very visible changes; often a whole hill-and-valley landscape of bulges and wrinkles appears, as an area of the face folds on itself.

The *zygomatic major* is a typical muscle. It has a fixed end (A) attached to the zygomatic arch and a free end (B) attached to the corner of the mouth. A smile is the result of B approaching A. The nasolabial fold (C) is formed at right angles to the direction of pull; most wrinkles arise in a similar fashion. Note also the bulging cheeks (D) and wrinkles under eyes.



THE IMPORTANCE OF WRINKLES

When the zygomatic major contracts, and its mouth end rises towards the cheekbone, the skin caught between the two ends of the muscle has nowhere to go. The skin in the cheeks, pressed up from below, bulges out like a tiny balloon being squeezed.

Above and below this bulge, wrinkles appear. The wrinkle that runs from the side of the nose to the side of the mouth is particularly noticeable. This crease, the nasolabial fold, is a perfect example of the sort of wrinkles that most frequently form when expression muscles contract: it lies at right angles to the direction of the pull. Similarly, the horizontal wrinkles that appear when we raise our eyebrows are perpendicular to the vertical pull of the forehead muscle. Look at the vertical folds that appear when you frown; the frowning muscle pulls directly across this fold.

Though overall patterns tend to be recognizably the same, details of wrinkle lines are quite different from person to person. The age of the individual is probably the most important factor in wrinkling. Very young people might not show any wrinkles at all when they lift their brows, while on older people, many permanent wrinkles may make new wrinkling difficult to perceive.

Thin people and obese people have different-looking smiles, as do men and women. A smiling woman would tend to show fewer crease lines than a smiling man of the same age (all other factors being equal) because of an extra layer of fatty tissue always present under a woman's skin.

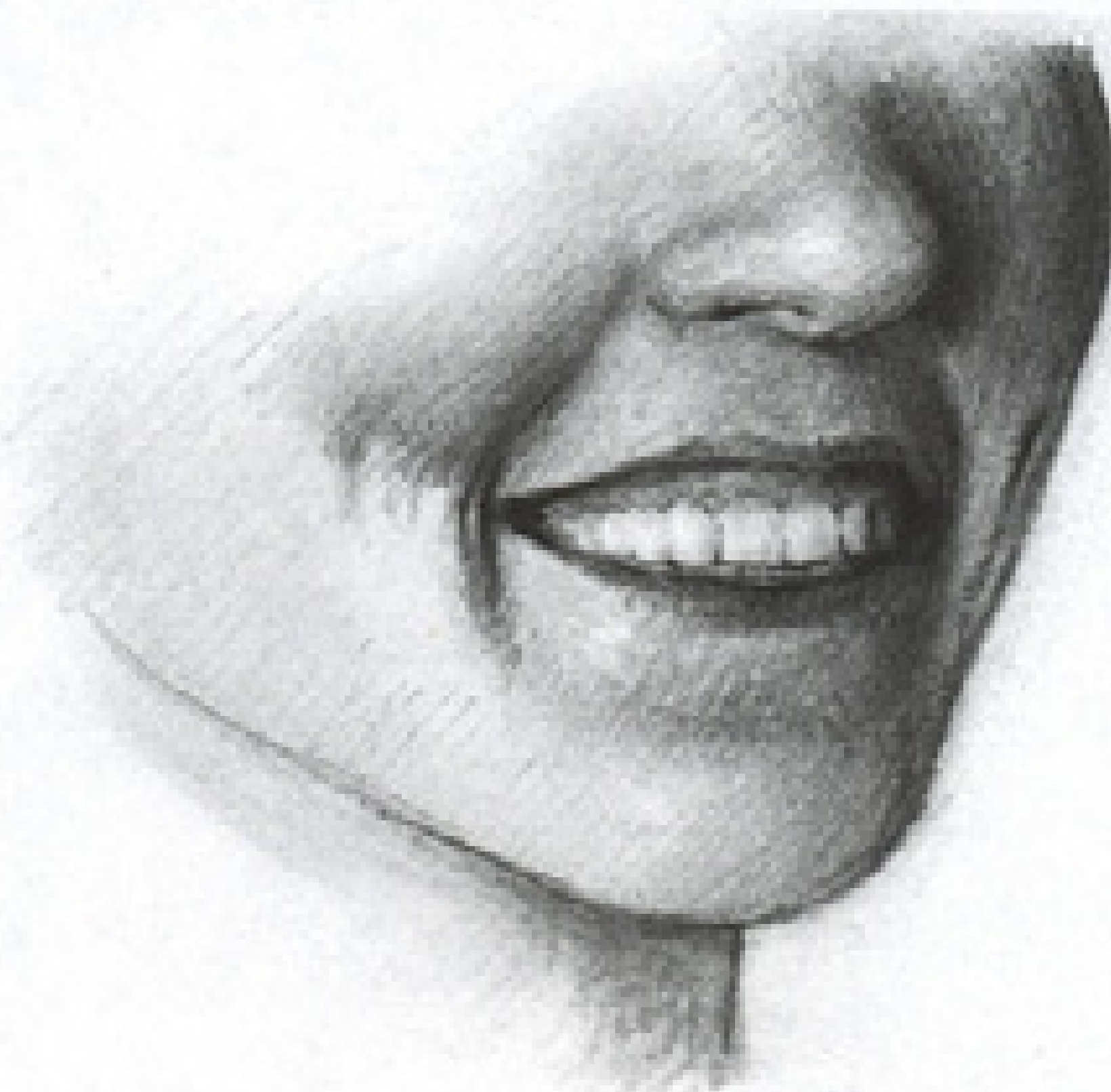
The strength of the pull is also a factor. If we smile half-heartedly, some of the folds might appear only faintly, or not at all. But if we smile widely, added creases and dimples might form.

Signature Wrinkles

The wrinkles that arise when a particular facial muscle tightens are like its signature: distinctive and recognizable. We have discussed a few of these signature wrinkles, like the nasolabial fold for the smile. Wrinkles are one of the keys to understanding and depicting expression—they are part of

WRINKLES RELATED TO FACIAL EXPRESSION

Some expression, different age. Wrinkling when we smile is not a factor of age, but the nature and amount of the wrinkling is. The fundamental pattern of the smile is the same in both faces, but the older face shows a more complex version of the pattern, with more minor wrinkles. Almost all the wrinkles on the older face (bottom) are permanent; they merely deepen when she smiles.



WRINKLES RELATED TO FACIAL EXPRESSION

With the passage of time, the more ephemeral wrinkles created by facial expressions become permanent. Although attempts have been made to "decipher" personality from the pattern that emerges, almost all the wrinkles here may be caused by either expressive, conversational, or even functional (i.e., squinting in the sun) use of the same muscles.



A. Brow wrinkles. Horizontal folds owing to action of frontalis.

B. Crow's feet. Lines radiating from corners of the eyes, owing to action of orbicularis oculi and zygomatic major.

C. Nasolabial fold. Crease from nose to side of mouth corner, created by sneering muscle and zygomatic major.

D. Frowning folds. Vertical folds owing to action of corrugator.

E. Creases of upper lip. Very faint, vertical lines formed by action of mouth-squeezing muscle, orbicularis oris.

F. Commissural fold. Crease from mouth corner to jaw. Results from all the actions that widen the mouth: speaking, smiling, eating.

the code by which the face communicates. Much of their identity is retained even when they combine in complex expressions; we recognize certain elements that we have become aware of. Almost everyone's signature wrinkles are the same.

Cartoonists and primitive sculptors, among others, have developed highly skilled and effective ways to summarize these crucial elements. They've learned the most important things about depicting expressions: what you can leave out and what you can't.

Do Wrinkles Reflect Personality?

It is said you can read a lot about personality from the pattern of folds that form as a person ages. This is not entirely true, although an expression leaves its mark on your face if you repeat it often enough.

If we smile a lot, the smiling wrinkles will be among those that become permanent grooves. If we frown a lot, we should develop vertical creases between the eyebrows. In fact, these wrinkles are awfully common among, say, middle-aged businessmen in Man-

hattan. Yet people with crow's feet are not necessarily accustomed to smiling frequently. A number of years of having to squint in the bright sun will develop exactly the same lines. Many facial muscles are used regularly in ordinary conversation. Don't jump to conclusions about the origin of a wrinkle pattern!

Drawing Wrinkles

Creases are not just lines on the skin. They are complete forms, with top, side, and bottom planes and long rounded edges; think of them as miniature hills and valleys. Rendering drapery is good practice for doing wrinkles.

Now, raise your eyebrows and look in a mirror. You are using the *frontalis* muscles to raise your brows, creating horizontal wrinkles across your forehead. Chances are, the light is falling from above. To shade an individual crease, we would begin by gradually darkening the skin tone as we move down the hill into the valley; the valley will be the darkest value—the deeper the wrinkle, the darker the tone; as we rise up out of the crease, we suddenly

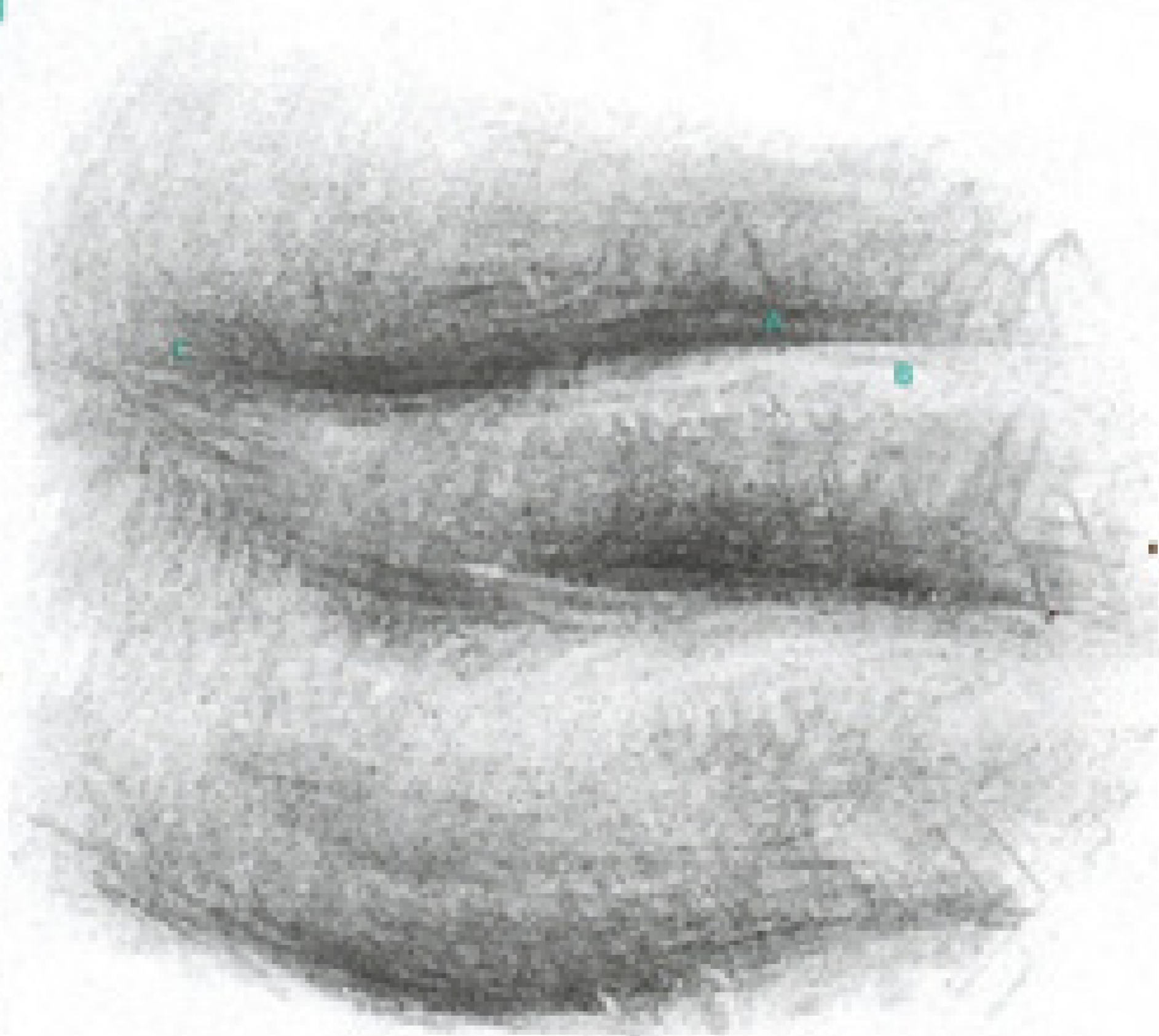
move from darkest dark to a very light tone on the opposite, upward-looking slope (perpendicular to the light)—this is the only hard edge; finally, as we move down this slope, we gradually merge back into the skin tone we started with.

In a line rendering of the face, creases are best expressed as a turning, rather than as a crack in a smooth surface; this is done with a light, broken, or double line (or all three), distinct from the harder line used for the outline of a face.

Here's another important point. Suppose you were drawing a head, with brow raised, and rows of wrinkles emerged. Even if those wrinkles were evenly spaced and unbroken, like the stripes on a flag, it would not be a good practice to draw them that way. Organic forms are irregular by nature. If we let any element in our depiction become too mechanical, or too uniform, it begins to look stiff. The accidents, the unevenness, helps a drawing or painting of the face look right. Invariably, if you think a pattern is regular, look again.

WRINKLES UP CLOSE

Wrinkles on the face are very much like folds in a piece of fabric. Like drapery, they are rendered tonally, not simply with lines. Here the light is from above. The tone gradually darkens as the surface curves under. In the trough of the fold (A), a heavy shadow accent occurs, with a sharp lower edge. The brightest tones (B) often occur right up against darkest tones. Shallow folds lack the sharp lower edge and darker tones. Often a deeper wrinkle trails off into a shallow one (C).



WRINKLES UP CLOSE

Looked at closely, no two wrinkles are alike. They differ in shape, in length, in spacing, and in depth. If drawn in even rows, they look "off"; living form is never mechanically repetitive.

Wrinkles are clearest in areas of transition between light and dark (A). In lightest areas, wrinkles, unless they are very deep, will show up only faintly (B). In shadows, wrinkles, unless very deep, will fade into the general gloom (C).



A pen-and-ink version of the same face. In this medium, achieving soft transitions is more difficult. In a detailed rendering, cross-hatching is used to achieve the desired gradations—soft above, sharp below. In a simpler, more linear style, like that used in cartoons, a different approach is used. Wrinkles are indicated with a light or broken line, distinct from the heavier line used for the outline.



TWO THINGS TO BEAR IN MIND

1. Only Part of the Face Is Involved

The whole face does not participate equally in most expressions. The burden of getting the message across usually falls most heavily on the brow in combination with the eyes, and the mouth and its surroundings. These two locations are the areas of the greatest muscular development and so are capable of undergoing the greatest changes. They are also, not coincidentally, the parts of the face we always notice first and to which we respond the most strongly.

If you cover your nose, you will find that you will lose very little in terms of expression; cover your eyes, and you lose everything.

Since there are so many muscles of expression (from twenty to twenty-six, depending on which anatomy book you are using) examining them grouped by active area will simplify our task greatly. A certain number of muscles

are excluded because they don't do much expression-wise, are hardly ever used, or both.

This leaves us with a total of twelve key muscles, five of which act on the eye/brow area and seven of which act on the mouth. Even here we can simplify things somewhat. The muscles can be grouped according to what they do: for example, most of the muscles that surround the mouth can be placed into the category of downward puller, upward puller, or outward puller.

2. How We Know What We Know: Neutral Positions

Our knowledge of the features in repose make recognition of change possible. We know how the eyebrows tend to sit, what the corners of the mouth look like, how wide open the eyes usually are. These elements are constant enough from face to face that we can normally recognize a changed face. This is true whether we are familiar with the person's face at rest or not.

Wrinkles are important, but not absolutely essential, in helping our perception out. It's the same principle of unconscious familiarity we use to pick out any change in our environment. We don't think about where the furniture is in our parent's house, for example, but if something is moved while we're away, when we return it's the first thing we notice. We get habituated to the features at rest and therefore notice any changes right away.

Being consciously familiar with the at-ease look of the features can also help us avoid unintentionally creating an expression when none is desired. This is often a problem in portraiture, as indicated by John Singer Sargent: "a portrait is a picture of the head with something wrong with the mouth." Given the suggestiveness of the mouth, that "something" is often the existence of an accidental scowl or grimace or sneer or a similarly unwelcome expression. Not the thing to please a touchy client!

WHERE EXPRESSIONS GET EXPRESSED



The areas enclosed in the two boxes are where we look when we want to determine someone's mood. They're the attachment place for most of the facial muscles and the location of most of the surface changes. Occasionally we get crucial information from elsewhere—the cheek, for instance, helps read the smile—but most often the rest of the face is a "frame" for the eyes/brow and mouth.

THE ELEVEN KEY MUSCLES OF FACIAL EXPRESSION

Out of the twenty-six or so muscles that move the face, only those pictured here are responsible for facial expression.

1. Orbicularis oculi. Attaches to inner orbit and skin of cheek; squeezes eye, as in squinting.

2. Levator palpebrae. Originates on orbit, attaches to upper eyelid. Raises eyelid, as in surprise.

3. Levator labii superioris. Three branches—inner branch originates on base of nose; middle branch on bottom edge of orbit; outer branch on zygomatic arch. All insert into skin above upper lip. Known as the sneering muscle.

4. Zygomatic Major. Originates on zygomatic arch; inserts into mouth corner. Pulls mouth into smile; known as the smiling muscle.

5. Risorius/plotysma. Risorius originates over rear of jaw, inserts into mouth corner; plotysma originates on upper chest, inserts into mouth corner. Both act together, stretching mouth, as in crying. Known as the lip stretcher. (The plotysma is not pictured here, as it would cover other muscles.)

6. Frontalis. Originates near top of skull, along hairline; inserts in skin under eyebrows. Raises eyebrows straight up, as in surprise. Known as the brow lifter.

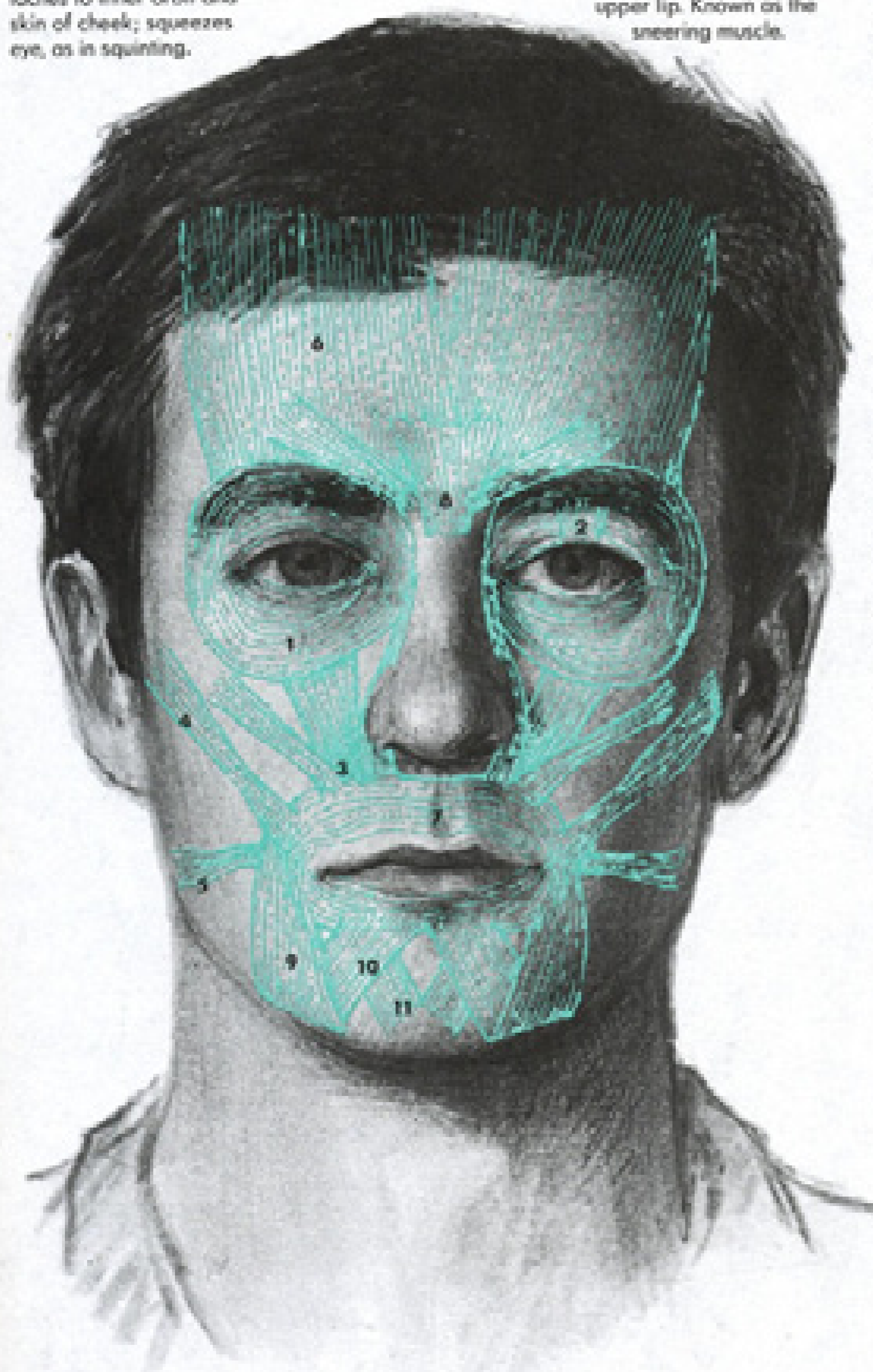
7. Orbicularis oris. Originates from muscles of corner of mouth. Curls, tightens lips. Known as the lip tightener.

8. Corrugator. Originates on nasal bridge; attaches to skin under middle of eyebrow. Lowers inner end of eyebrow. Known as the frowning muscle.

9. Triangularis. Originates along lower margin of jaw; inserts into mouth corner. Pulls down on mouth corner. This is the "have-a-bad-day" muscle.

10. Depressor labii inferioris. Originates along bottom of chin; inserts into lower lip. Pulls bottom lip straight down, as in speaking.

11. Mentalis. Originates just below the teeth, on lower jaw; inserts into skin of ball of chin. Wrinkles chin, creating raised "island"; pushes lower lip up. Known as the pouting muscle.



RESTING POSITION OF EYELIDS

enough to care. But to lift your lid above the iris takes a special effort; this can't be sustained either.

The Range of the Lower Lid

The lower lid's range of resting positions is much narrower.

UPPER LIMIT—*The neutral upper limit of the lid is just above the bottom of the iris.*

The lower lid usually just grazes the iris, covering a bit of its lower edge. In expressions that involve squinting, like laughing and crying, the lower lid can rise much higher, covering part of the pupil from below.

LOWER LIMIT—*The neutral lower limit of the lid is just below the iris.*

Sometimes we can see white below the iris. Wherever it is, this lower border of the lid is fixed; the lower lid almost never moves below its neutral position. It's an island of stability in the eye's complex, movable landscape.

THE RELAXED POSITION OF THE EYEBROWS

UPPER LIMIT—The eyebrows also vary within a predictable range. From the viewpoint of expression, the inner third of the eyebrow (near the nose) is where all the action is. It's the most movable portion, the part over which we have the most subtle muscular control. In a neutral face, it is always either level with, or slightly below, the outer two-thirds of the eyebrow. As soon as it curls upward even slightly, the eye takes on a look of distress. Since the brow never naturally grows this way, we can recognize distress from the brow position alone, even without the usually accompanying wrinkles and bulges.

LOWER LIMIT—The lower limit of the eyebrow is established by a particular facial landmark: the fold that marks the top of the upper lid. No matter how low the eyebrow grows, it seems to never go below an imaginary line drawn level with this fold. When the brow crosses below this line, pulled by the *corrugator* muscle, the face takes on an expression. It may look thoughtful, or angry, or perplexed, depending on what the rest of the face is doing.



A



B



C



D



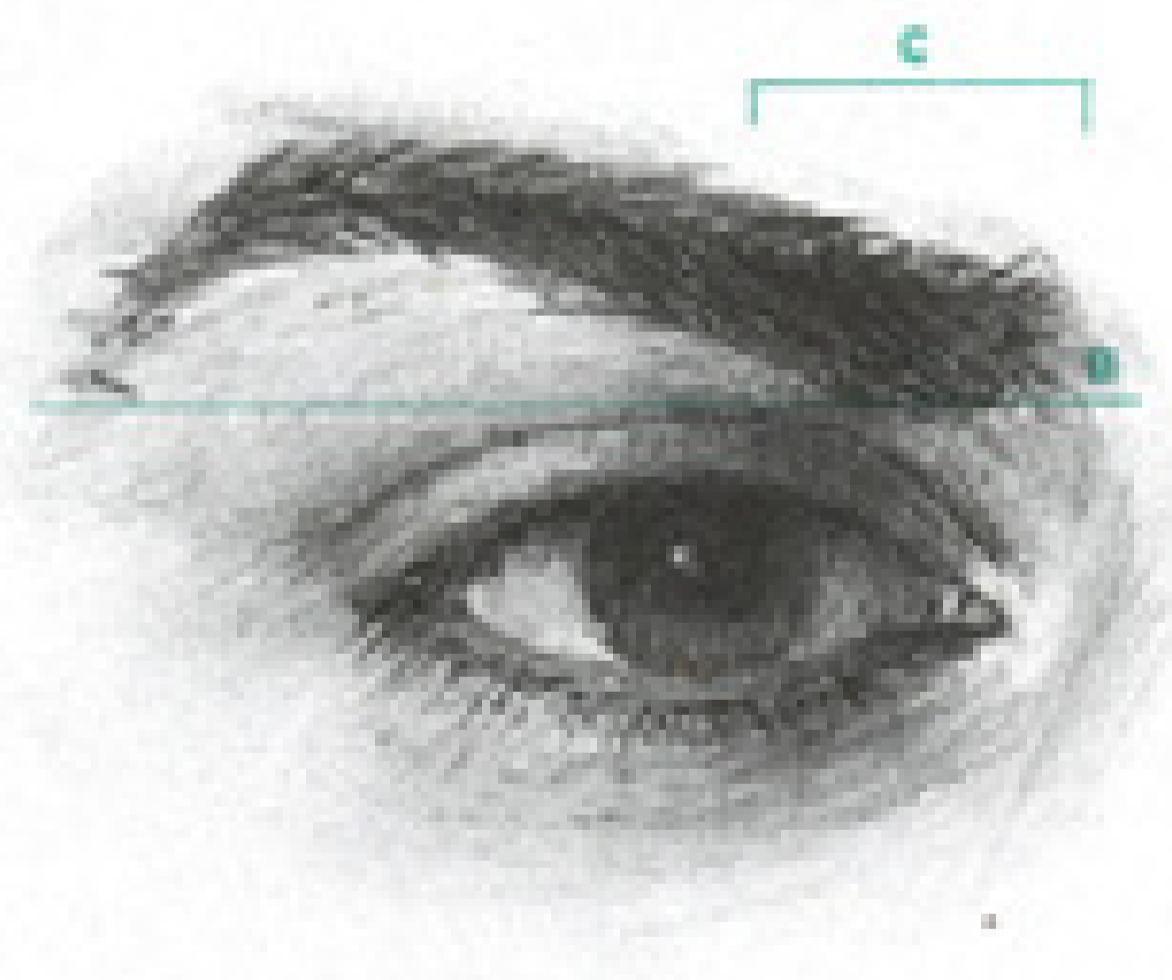
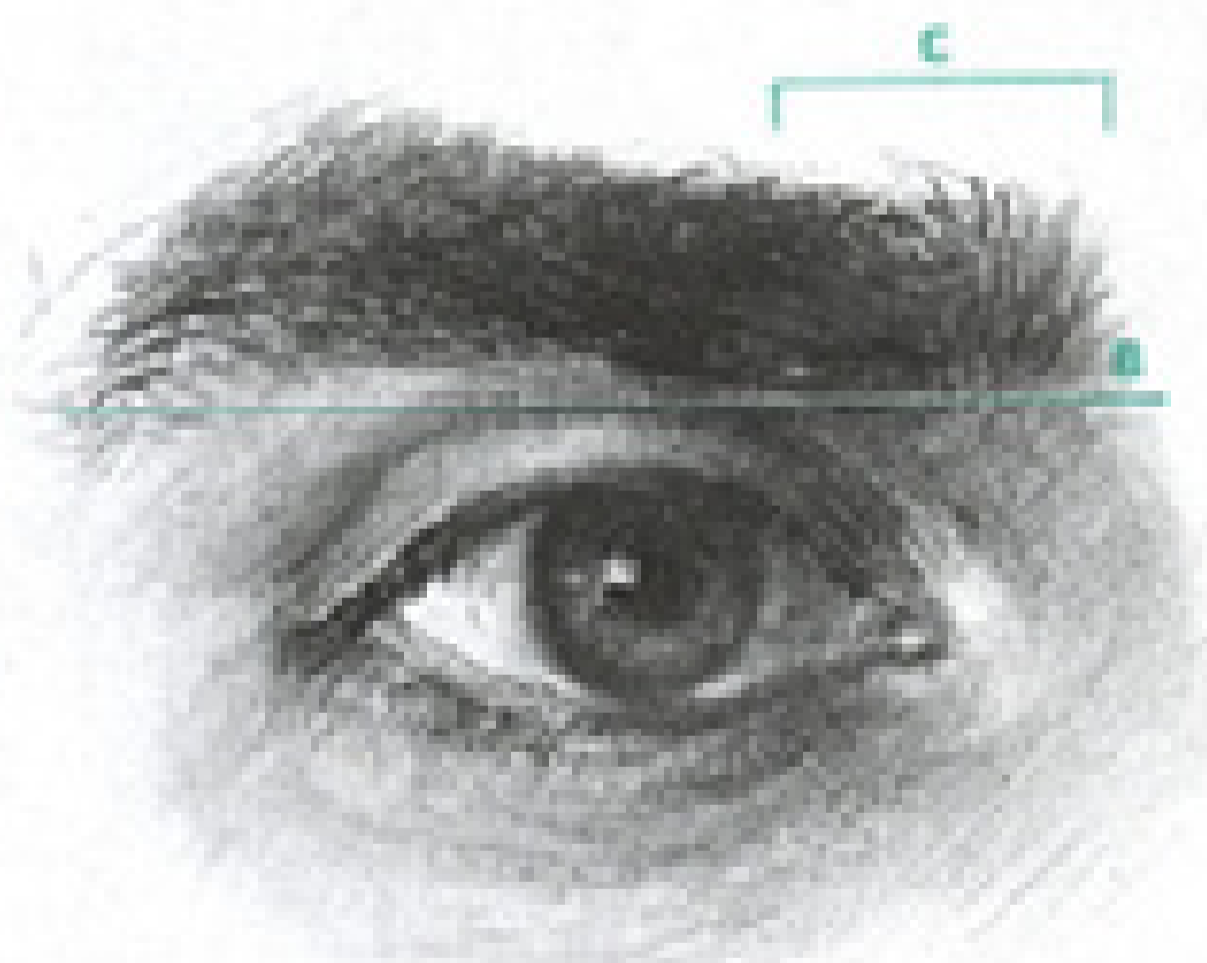
E

The resting position of the eyelids is the position the lids take when the eye (and the person) is relaxed. In the average eye (A), the lid line crosses the iris with room to spare above the pupil. On some people, the eyelid sits much lower (B). This is as low as the lid can go before it begins to interfere with vision. The upper limit is less well defined; though the eye of (C) has an unusually high upper lid, it is also possible to find people with lids even higher, where white always shows above the iris. A great deal of white showing above indicates either an unhealthy condition or an expression.

The lower lid normally hides a bit of the iris (D), but it is not uncommon for it to allow white to show (E). Unlike white showing above the iris, white showing below has no emotional connotations whatsoever; there are no expressions where the lower lid moves farther down in response. In fact, there are no muscles to move the lower lid down.



The average male eyebrow (left) is heavier and closer to the eye; women's tend to be thinner and higher (right). In both cases the eyebrow follows the bulge of the eyebrow ridge; for men, the brow tends to sit on the downslope, while on women it's on the upslope. The eyebrow always shows at least a bit of arch, with typically more arch on a woman's than a man's. The break in the arch is about two-thirds of the way from inner end to outer (A), right at the point where the forehead (and the brow) turns from front plane to side.



LIMIT OF BROW

There is a lower limit beyond which even the lowest male or female brow will not normally drop. It is the top edge of the upper lid (B). Here both brows, male (left) and female (right), fall just above that limit. In expressions that involve frowning, like concentration or anger, the inner brow end (C) will move below the line, pulled downward by the corrugator muscle.

WHICH EYE HAS THE EXPRESSION?



STRAIGHT-ACROSS TYPE



HIGH-ARCHED TYPE



LOW-ARCHED TYPE



BROW OF DISTRESS

DISTRESS: INNER BROW END SLANTS UPWARD

The inner end of the eyebrow can be very expressive emotionally. If it drops down below a certain point (see p. 66), it indicates one sort of emotional state. If it moves above a certain point, it indicates distress. What separates these is the relationship of the inner third of the brow to the outer two-thirds. Ordinarily, the inner third lies either level with or below the rest of the eyebrow. If it moves even slightly above the rest of the eyebrow, the eye looks distressed.

EYEBROWS ON PARADE

Henri de Toulouse-Lautrec never saw an eyebrow he could leave alone. Toulouse-Lautrec demonstrates a caricaturist's fascination with the changes a simple twist or slant in the eyebrow can bring, combined with a genius for painting and portraiture—a rare combination.



UPLANTED



RAISED



KINKED

EYEBROWS ON PARADE

No particular expression (anger, sadness, joy, etc.) is suggested by most of these faces—just a vivid sense of liveliness and strong character.



UPSLANTED



UPSLANTED



DOWNSLANTED



Troupe de
M^{lle} ÉGLANTINE



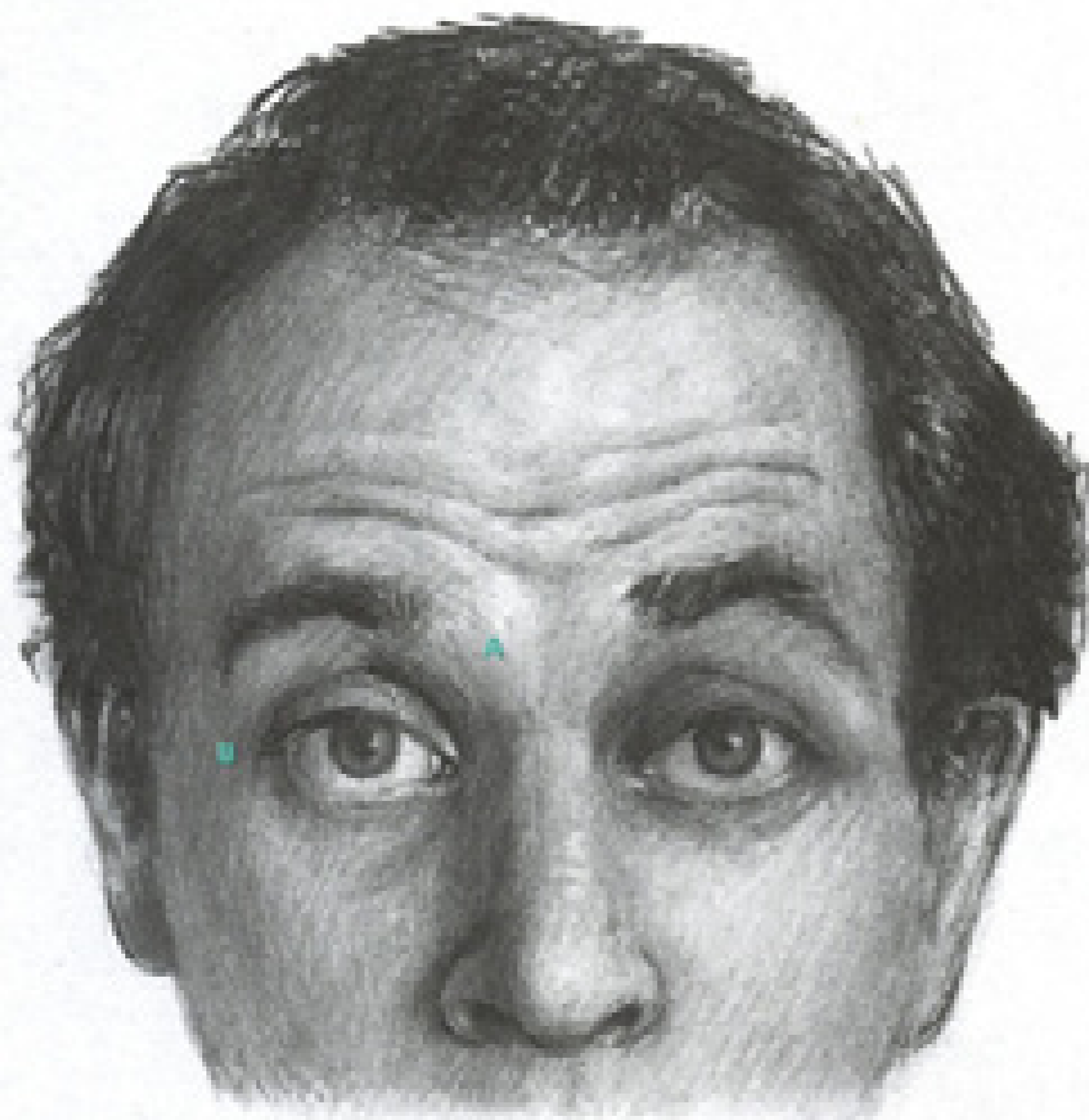
Eglantine
Jane Avril

Cléopâtre
Gazelle

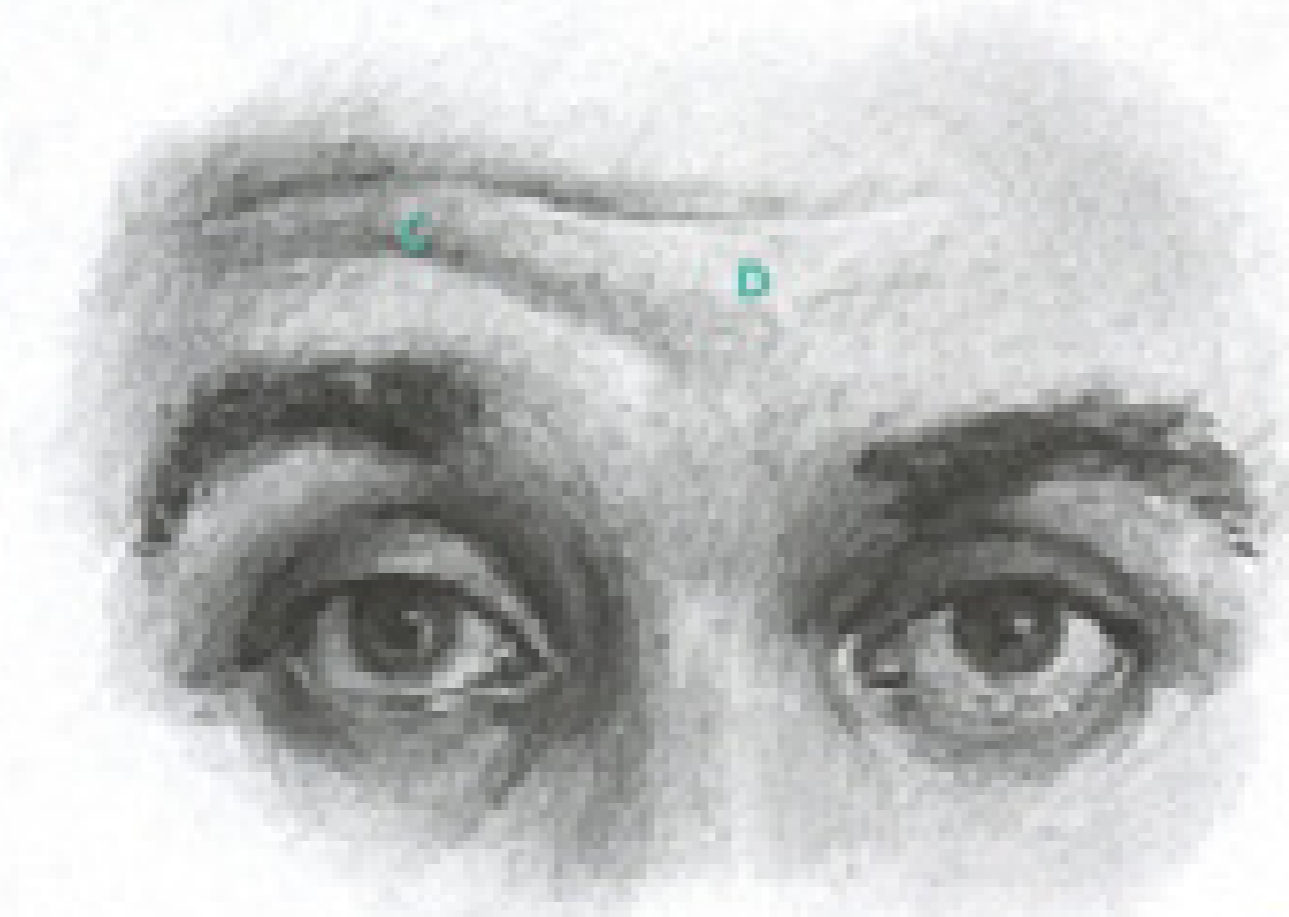
FRONTALIS: THE EYEBROW LIFTER



The frontalis is the muscle underneath the forehead. Its basic action is simple: it lifts the eyebrows straight upward, creating rows of wave-shaped wrinkles. The expressions of fear, surprise, and sadness all involve some degree of this brow lifting. But the fact that so many older people have these wrinkles has a more mundane explanation: raising the eyebrows is the most common of all the conversational expressions. We raise our brows frequently and unconsciously to accompany our talk, with the same sort of meaning as a hand gesture.



The wrinkles of frontalis are arched like the eyebrows, with a dip in the middle, and a descending leg on the side. The higher the eyebrows are raised, the deeper the wrinkles. Some of the wrinkles may be broken, or only part way across, particularly if the eyebrows are only part-way raised. The topmost wrinkle is the most shallow. The eyebrow does not glide evenly up the forehead. The outer end is "pinned" to the face and does not move with the rest. So as it rises, the eyebrow changes in shape from a shallow arc to a deeper one. As the brow rises, it also stretches the skin around the eye. Most of the upper eyelid is exposed. The skin of the upper orbit and globella is smoothed, and the bony forms show more clearly underneath (A). The eye may be opened more, as at (B).



Raising just one eyebrow is a skill some people have. A slightly quizzical look may result. This action's made possible by the fact that the different sections of the frontalis can be controlled separately. In this case (C), the right half is being contracted; the left half is relaxed. The arching "signature wrinkles" fade out as soon as they reach the midline (D). Note the difference between the two upper lids and the two upper eye sockets.

THE FROWNING MUSCLE: CORRUGATOR

The *corrugator* is the most human of the expression muscles. Some might argue in favor of the zygomatic major, the smiling muscle, but it's too easy to smile with nothing behind it. No one tries to cry, to be afraid, or to scowl with concentration—all expressions in which the corrugator is the main protagonist. They're responses to the ups and downs of life. The smile can be a mask; when we use the corrugator, it's often because the world has broken through.

The corrugator has thus acquired a very bad reputation. When novelists talk about someone's "troubled brow," "knit brow," or "darkened brow," the corrugator is responsible. Almost all the actions of the corrugator are negative in effect. In concert with other muscles, the corrugator is what makes us look sad, troubled, or angry. By itself, it simply makes us look perplexed.

Description

The corrugator's basic action is to pull the eyebrows down and bring them closer together. Actually, two muscles, the corrugator and the *procerus* (or *pyramidalis*) do this; since they always contract simultaneously, they can be considered functionally as one muscle (the *corrugator group*).

The corrugator group has fibers that radiate upward from the bridge of the nose and go into the skin of the lower, middle brow. The corrugator itself has its two fixed ends anchored to the skull at the outer corners of the glabella. From this point the two muscle bodies, strips about as wide across as your little finger, run diagonally outward and upward to a point just above the middle of the eyebrow. Here, the free ends are knotted into the skin.

The procerus is fan-shaped. The base of the fan is fixed onto the nasal bone where the bone meets the cartilage. The upper, movable end is attached to the skin in the area between the two eyebrows.

Action

Look in a mirror, frown, and you can trace the various effects of the contraction of the corrugator group on the brow. The overall sense of a frown from the front view is that the two eyebrows are unsuccessfully attempting to join up. The inner ends of the eyebrows have moved together and downward; the skin in between is bunched and wrinkled ("corrugated"). Usually, the entire eyebrow appears tipped downwards; this is the classic effect cartoonists seize on and exaggerate when drawing an angry face.

If you look at the picture of corrugator from the side, you'll note that the

movement of the brow is more than just down and together; it's also forward. The bunching of the skin above the eye creates a sort of shelf, projecting outward.

Other Effects

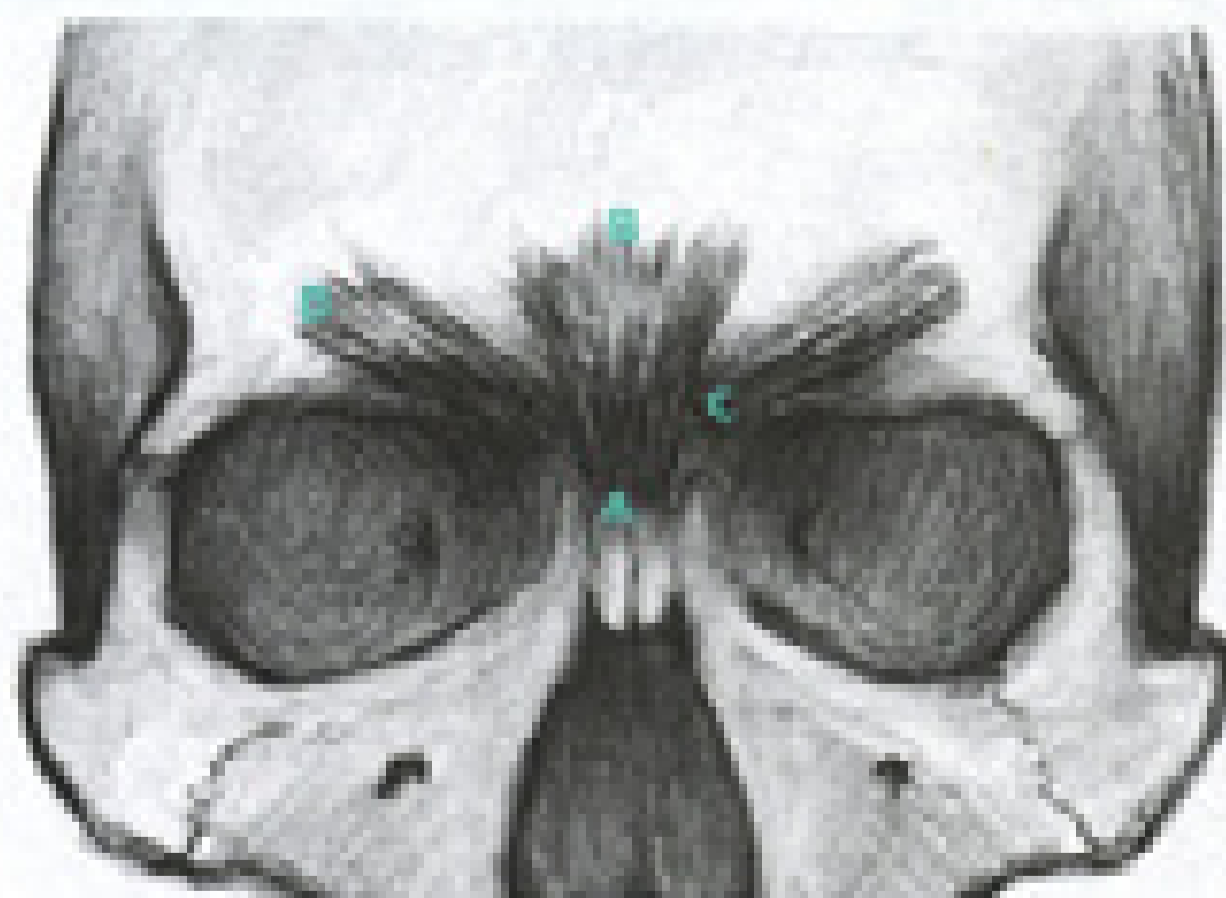
The movement of the eyebrows also affects the area between the eyebrows, where two—three, at the most—very deep, vertical wrinkles tend to form. These wrinkles, inside of each inner-brow lump, are quite straight for most of their length, but they often curve under the brow lump before fading out. These wrinkles are permanently etched into the face of most older people, particularly men.

New Skin Fold

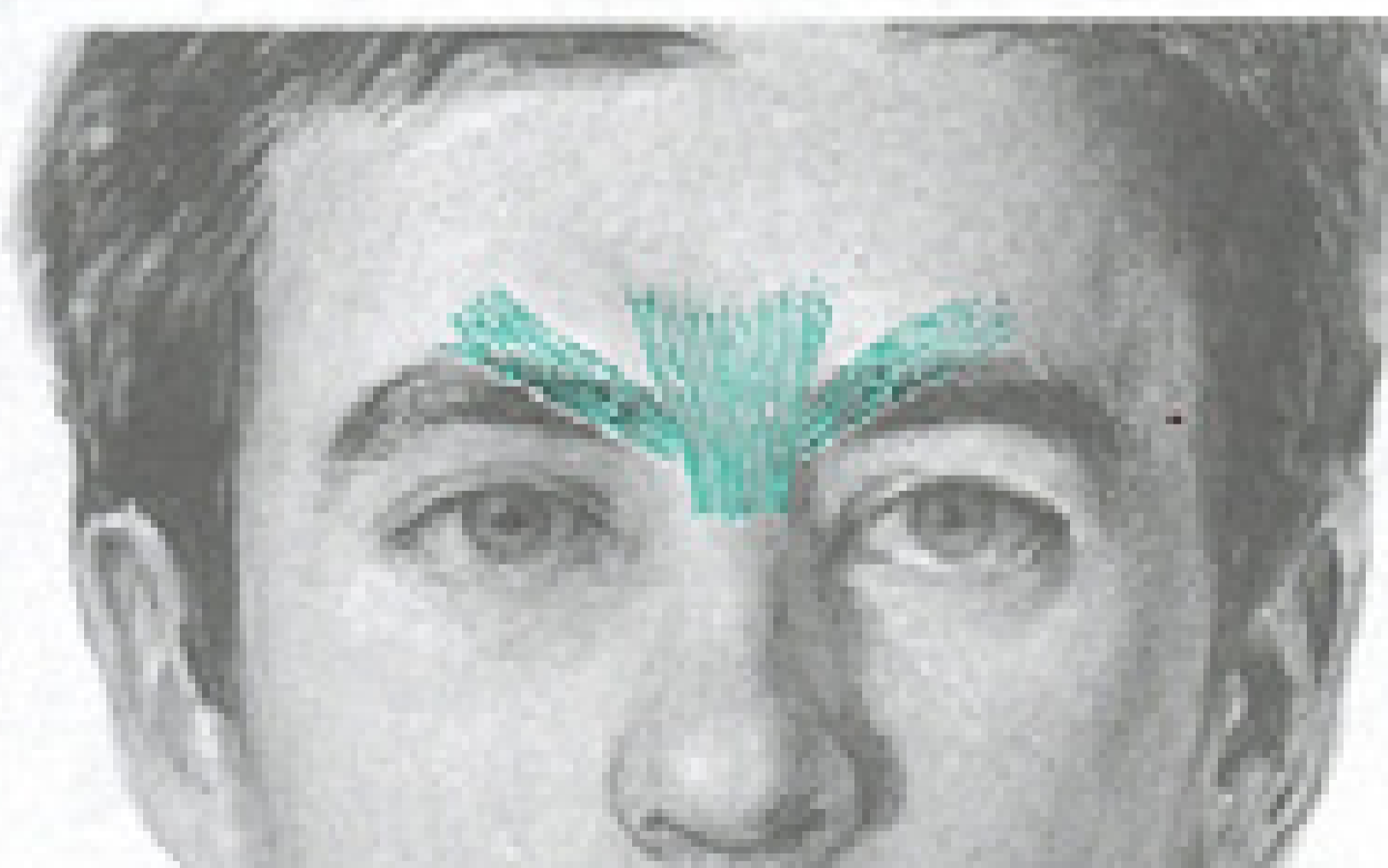
The downward pressure and forward pressure of the brow drags the skin below along with it. A new, sharply defined, skin fold appears above the eye, pulled across the upper lid. The lid itself is pressed down further on the eye, partly closing it. Especially in the innermost corner of the eye socket, the eye appears more shadowed.

The minimum elements necessary to recognizably depict a frowning brow are these: inward-slanting eyebrows, vertical in-between creases, and extra-low level of the brow. The other, more subtle changes enhance the effect.

CORRUGATOR: THE FROWNING MUSCLE

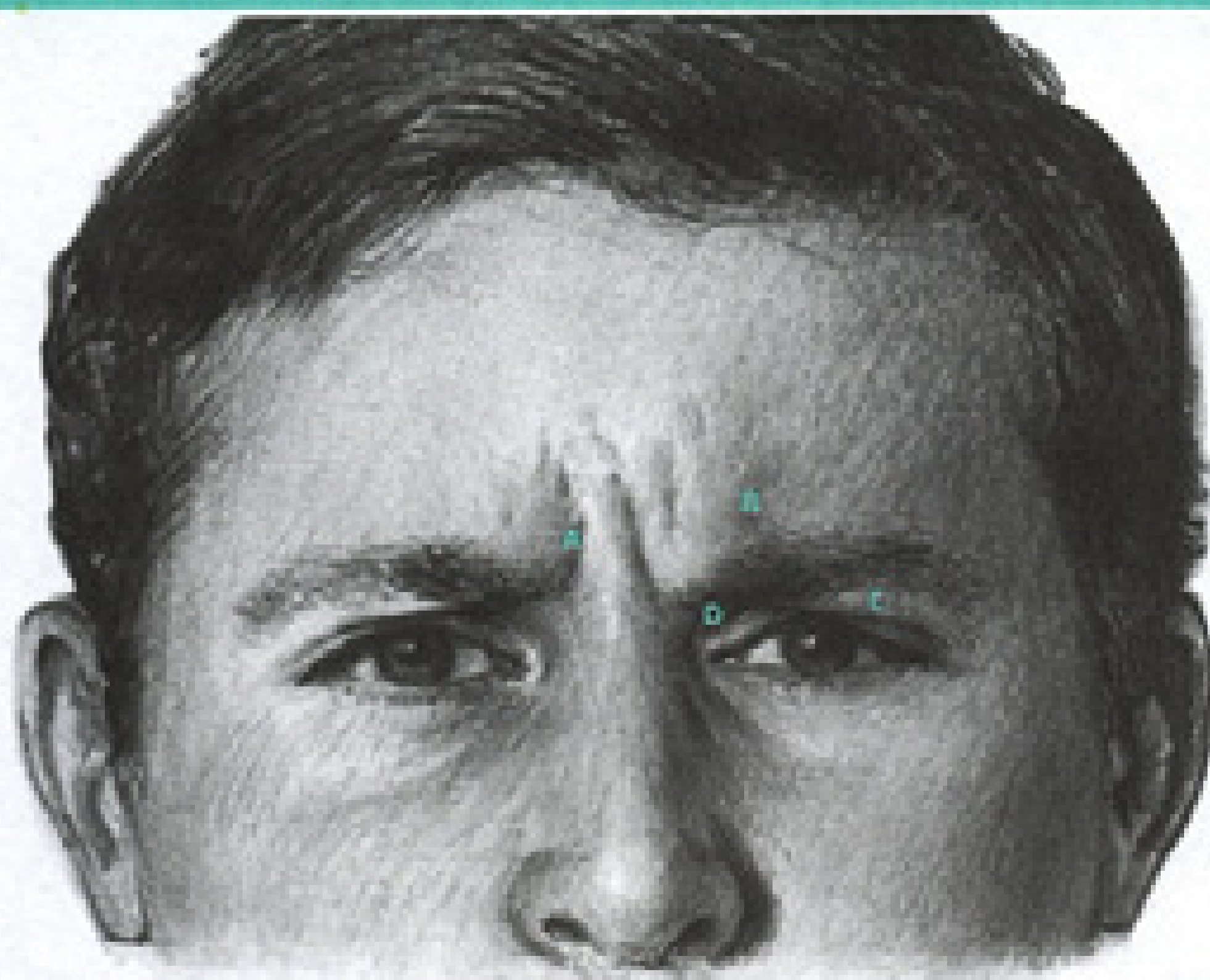


The attachments of the corrugator. The corrugator is actually two separate muscles, the procerus and the corrugator. They always contract together. The fan-shaped procerus attaches to the bone at the base of the nose (A), and to the



skin of (D) between the eyebrows. The paired corrugators rise diagonally from their anchorage in the inner corner of the orbit (C) to their insertion in the skin above the middle of the eyebrow (D).

THE CONTRACTION OF THE CORRUGATOR CREATES A FROWN



The corrugator pulls the brows down and together. It's active in most moods of distress and central to the expression of fear, sadness, and anger. It's also used unconsciously in talking or concentrating. The consequences of these uses is the eventual development of frown lines on the face. In the action of the corrugator, the eyebrow lowers, especially the inner third. It drops below the top of the upper lid. The eyebrows move closer together. A cashew-shaped lump appears at the inner end of the eyebrow, with a curved, vertical crease along its inside edge (A), the "frown line." A small, crescent-shaped dimple appears (B) above the middle of the eyebrow. This is where the muscle attaches to the skin and so becomes a low spot when the muscle contracts. A new, nearly horizontal fold appears above the eyelid (C). As the skin folds, it hides part of the upper lid, particularly the inner half. The inner end of the skin fold runs right into the descended inner corner of the eyebrow. The hollow created under it, at the inner corner, is in deep shadow (D). The downward pressure of the brow shoves the upper lid a bit lower, hiding more of the iris.

RELAXED EYES FOR COMPARISON



The side view shows clearly the pulling downward and forward of the brow. Note also the lengthened and straightened skin fold (E) above the eye and the narrowing of the eye itself.

Muscles of the Eye

The frontalis muscle and corrugator muscle act directly on the brow and indirectly on the eye and its surroundings. Now we'll look at the two muscles, *levator palpebrae* and *orbicularis oculi*, that act directly on the eye and upper cheek and, sometimes, indirectly on the brow.

THE EYELID LIFTER: LEVATOR PALPEBRAE

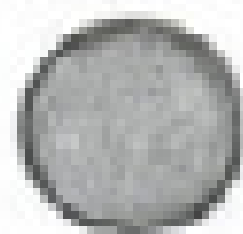
The upper lid is the more movable of our two eyelids because it has its own muscle: the levator palpebrae. It attaches to the skin of the upper lid on one end and to the roof of the eye

socket on the other. When it contracts, the upper lid is lifted; the more contraction, the more lift—the more lift, the more wide open the eye.

Normally, the levator is slightly contracted, holding the upper lid in its awake position. When the levator begins to relax, the upper lid, pulled by

LEVATOR PALPEBRAE: THE EYELID LIFTER

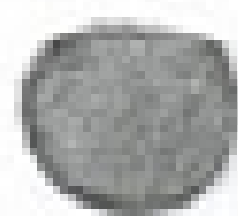
Opening the eye extra wide with the levator palpebrae acts to intensify many of the expressions. But even in an otherwise relaxed face, the contraction or relaxation of the levator can have a drastic effect.



A. Excited. The eyelids are open as wide as possible. Most eyes will show a bit of white above the iris with the levator fully contracted. The lids arch more sharply, and the eye has a staring quality.



B. Alert. These eyes are open somewhat wider than normal. The iris begins to be covered by the upper lid (above).



C. Neutral. This is the ordinary, awake state for this person. The iris is still cut off quite high; more than half is showing.



the force of gravity, begins to drop down over the iris. If the levator relaxes completely, the upper lid will fall against the lower lid, closing the eye. The contracting levator will reopen the eye; if it continues to contract, the lid will rise past its normal open position to expose more eye than usual.

Intensity

The levator is a sort of "intensity control" for the face. In the case of anger, fear, or surprise, the more vivid the expression, the more the eye will open. And the opposite is true: the more the eye closes, the more lackluster the face.

The crucial element in gauging the state of the eye is the shape of the iris, and white showing around it. Because the contrast between the dark iris and the bright eyeball is so strong, whatever that state is shows up from a long way off. We are the only animal with such a conspicuous eye display.



D. Sleepy. This iris is exactly half hidden. The relaxation of the levator allows the lid to fall. The pupil is partly blocked. This is a transitory state; we cannot stay conscious for long once our lid has fallen this low.



E. Losing consciousness. A momentary state. Either the person has just awakened or is just falling asleep. With this much of the pupil blocked, vision is seriously impaired. The iris is two-thirds covered.



F. Eye closed. When the levator is completely relaxed, the eyes close. The curved line of the lower lid becomes the line for both lids. The joined lashes are more prominent, and though lashes are often left out of drawings of the face (being so delicate), in this case their doubled thickness makes them a substantial enough form to include.

THE EYE-SQUEEZING MUSCLE: ORBICULARIS OCULI

There are times when we wish to pull the eyelids closed. When we squint, or squeeze our eyes shut, we are using the orbicularis oculi. When it contracts, the eye, and often a much larger area of the face, including the cheeks and the mouth is affected. This is very unlike the modest action of the levator.

The orbicularis oculi is a large oval-shaped muscle, encircling the eye and spreading into the cheek beyond. It takes up the area that would be covered by a good-sized eyepatch. Clearly, when this muscle contracts, it's going to take a lot of face with it.

Imagine a large circle. Within it there are more circles, each one smaller than the last. The outer circle represents the boundaries of the orbicularis oculi; the lines within it trace the paths of its muscle fibers. The fibers travel in upward or downward arcs from one end of the eye to the other. All the fibers are fixed to the side of the bony nasal bridge; their free ends are attached to the skin of the cheeks and at the outer corner of the eye.

Action

When the orbicularis contracts, the skin around the eye is pulled in toward the nasal bridge. The eye begins to close, and the familiar crow's feet appear at the outer eye corner. The more the fibers of the muscle shorten, the stronger the contraction, and the

smaller the oval around the eye gets. The smaller it gets, the tighter the eye is closed and the more the skin wrinkles. Eventually, the eye is closed so tight it becomes hard to tell the eye line from the wrinkle lines. When the orbicularis is that strongly contracted, it also bulges up the cheeks, deepens the nasolabial folds, pulls on the corners of the mouth, and sometimes lowers the brow.

The orbicularis oculi has distinct functional areas. The center of the muscle, where muscle fibers run through the eyelids themselves, is one independent region, the palpebral portion. Surrounding this is the remainder of the muscle, the orbital portion, which has two independent halves, upper and lower. The lower half, below the eyelids, is a key component of the smile; the upper half is used only when all portions of the muscle contract at once, as in the expression of pain.

The Eyelid Tightener

The palpebral portion of the orbicularis oculi runs through the thin skin of the eyelids. It is attached to the bony inner wall of the orbit. This portion is so tiny that its full contraction leaves only the slightest of flexion wrinkles (those that form at right angles to muscle pull) in its wake. Its major effect, when tensed, is to tighten and compress the eyelids. When the eyelids are tightened, the only movement they can make is toward each other; that is, they begin to close.

Typically, the mild contraction of the palpebral muscles pulls the lids in just enough to give the eye a narrowed look. The lower lid closes more than the upper, taking on a more rounded, defined look. This narrowing lower lid movement is important in two very different expressions: anger and happiness.

The Orbital's Lower Half

The lower orbital portion of the orbicularis oculi is one of the two muscles that create the expression of joy (the other is the zygomatic major). Its surface form is worth studying carefully.

Many people do not have voluntary control over this portion. Those that do have smiles that look sincere, even if they are not.

Try squinting so that just one eye is partly closed. If you can do it, you'll observe that the cheek, particularly the upper part, rises; a smile-shaped crease appears below the eye; crow's feet appear at the outer eye corner; and the eye narrows. This narrowing is usually absent in an insincere smile. Amidst all these changes, the area above the eye is left relatively undisturbed; all the action is below.

If you squeeze hard enough, you can close the eye completely. This is what happens in the laugh. But don't squeeze so hard that your brow starts lowering. If you do, it means you've also triggered the upper half of the muscle.

CONTRACTION OF THE EYELID PORTION ONLY

When only the eyelid portion of orbicularis oculi contracts, the main effect is to narrow the eye opening. The difference in appearance compared to simply closing the eye has to do with the lower lid. It straightens, rises up the eye,

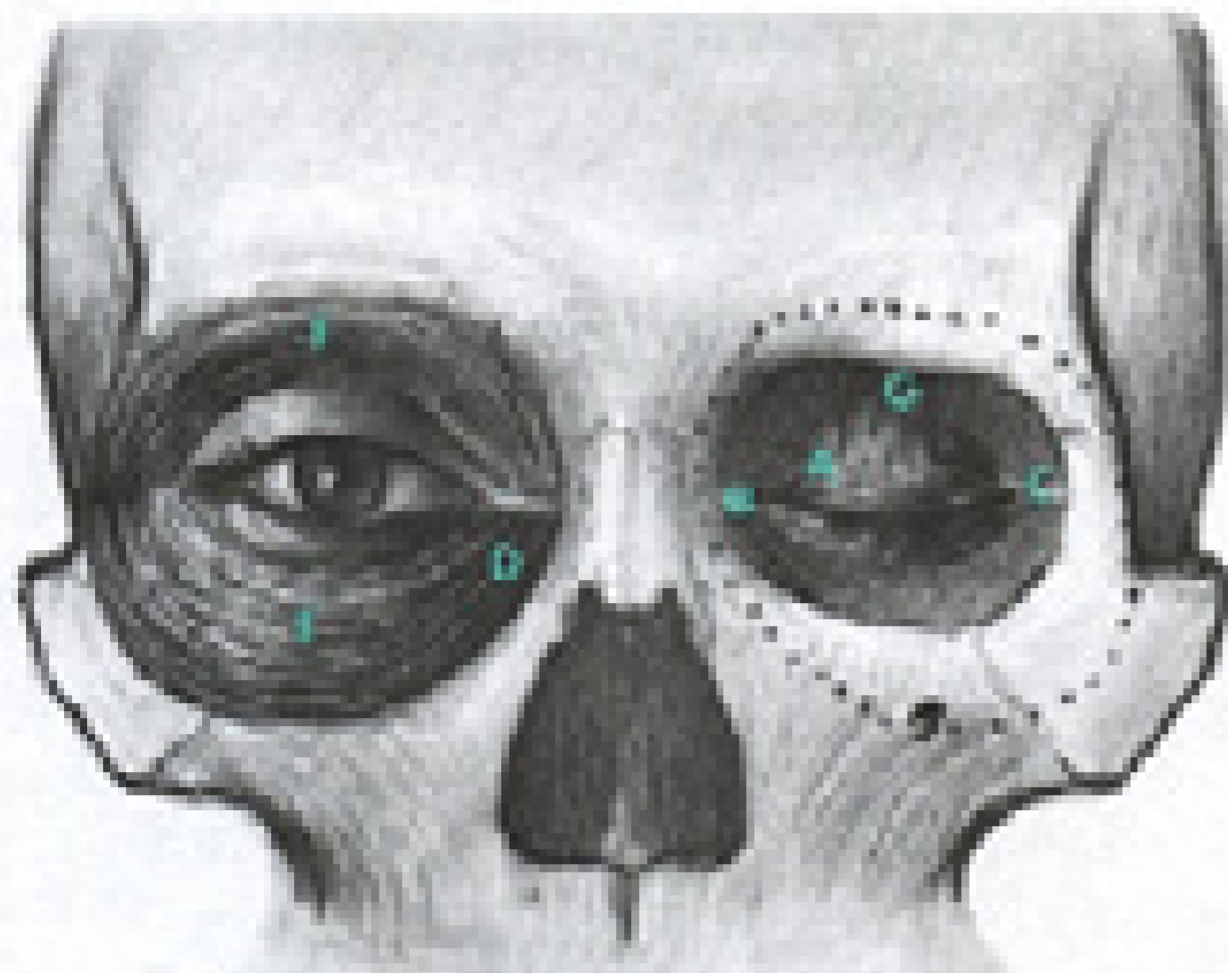
and covers the iris almost up to lower edge of pupil. This is how eyes look in first stage of a smile. There's also a little extra bulge below eyes (A); this is better defined when more of orbicularis oculi contracts.



NEUTRAL EYES FOR COMPARISON

EYELID PORTION CONTRACTED

ORBICULARIS OCULI: THE SQUINTING MUSCLE



The attachments of orbicularis oculi. The orbicularis oculi, the muscle of the squint, has three parts, with separate functions. The inner, eyelid part, the palpebral portion (A), runs crosswise through the lids and attaches at the eye corners, along with the lids (B and C). The outer, orbital por-



tion has its fixed attachment on the skull (D) and its free attachment into the skin of the cheek. It has a lower half (E) and an upper half (F), which are semi-independent. Also pictured is levator palpebrae, eyelid lifter, with its fixed attachment to orbit (G), and its insertion on eyelid.



When the entire lower portion of orbicularis oculi contracts, the narrowing of the eye is combined with the bulging of the cheeks. This is a key action in the smile.

The area above the eye is completely relaxed (A). This contraction affects only the eyelids and the area below and beside the eye.

The eyes narrow. Now the lower lid is virtually a straight line and has begun to cover part of the lower pupil; the upper lid, not affected, is still above the pupil's upper edge.

Wrinkles (the "crow's feet") radiate out from the outer eye corner like spokes on a wheel. They follow closely the contours of the surface beneath. These, and the crease be-

low the eye, are the signature wrinkles of the orbicularis oculi.

The wrinkling starts where upper lid line ends. Each line (B) tips progressively more downward, fading out as they pass to the side plane of the face. The last and lowest wrinkle emerges from the outer end of the little smile-shaped fold.

The cheek swells, particularly the upper half. Above the cheek, the little smile-shaped fold (C) or folds appear. Above it, the lower lid has a full look.

The crease from the nose to the mouth (the nasolabial fold) is deepened (D). If the pull is strong enough, the corner of the mouth may rise.

The Orbital's Upper Half

The upper half of the orbicularis oculi is not as free to move as the lower half because many of its fibers are intermingled with the fibers of such other muscles as the frontalis and the corrugator. But when it does contract, the whole upper part of the eye region is reshaped.

Keeping one eye open, look at yourself squeezing one eye tightly closed. Watch the inside end of the eyebrow. As soon as it starts to be pulled down, you know that you've started adding the action of the upper half of the orbicularis to the action of the eyelid and lower portions. In the upper eye area, the skin above the upper lid is shoved downward, hiding most of the upper lid itself. The lower lid is pressed upward

from below, and the two lids meet in the line of the eyelashes.

Wrinkles radiate out from the inner corner of the eye like deeper mirror images of the crow's feet. One or two particularly deep folds may join their counterparts clear across the nose. They're not pretty. (Neither are the circumstances under which we use this muscle.)

The eyebrow is also pulled down, especially at its inner end. You can look at the muscle diagram and see why; the top part is right underneath the brow, so the brow is pulled toward the inner eye corner along with everything else. The corrugator may also be triggered, adding its pull to that of the orbicularis.

The net effect of the contraction is of

an explosion of lines radiating out from the inner eye corner. The feeling is of compression and stress. The nose-to-mouth crease is greatly deepened; the nose itself is pulled upward, distorting the tip and creating horizontal creases along its length. And the pull on the corner of the mouth is much greater. The crow's feet and lower eyelid wrinkles also get much deeper.

One way to think about the muscle portions just described is that their actions appear in stages: the first stage, using the palpebral portion, just narrows the eye a little; the second stage, using the orbital's lower half, starts a true squint, a pleasant-looking one; the third stage, using the whole muscle, squeezes the eye for all it's worth, leading to a pained expression.

CONTRACTION OF FULL ORBICULARIS OCULI

This is the expression of pain. When the entire orbicularis oculi muscle contracts, the eye is buried in a sea of wrinkles. Every feature is pulled toward the inner eye corner. An eye communicating sheer stress and distress is the result. Here the upper half of the muscle, rarely used, adds

its action to that of the rest of the muscle. It creates the deep, ray-like wrinkles stretching between the eyes and triggers the pulling down of the eyebrows. We would only expect to see this face in response to some extreme circumstance: intense pain or intense effort.

A. The brows are pulled down, probably by a combination of the corrugator and the upper portion of orbicularis oculi. Most action is at the inner end. A dimple over the middle of the eyebrows is prominent; also shallow, diagonal wrinkles rise upward on the forehead.

B. Vertical wrinkles (at right angles to muscle pull) may appear on the surface of the upper lid. Lid line itself becomes much straighter; the stronger the action, the straighter the line. Upper lid fold has disappeared completely.

C. Deep, radiating wrinkles emerge from inner eye corner: upward, across, and diagonally downward like spreading fingers. Often, a horizontal crease extends fully across nose. These are signature wrinkles of this action.

D. Crow's feet and the smile-shaped eyelid fold get much deeper, and extra folds appear.

E. Nasolabial fold deepens. Wings of nose are pulled upward, giving the nose a pointed shape.



The Eye in Movement

Eyes are the most restless feature. Our eyes are constantly moving about, even when we're not; watch someone sitting on a park bench or standing waiting for a bus. Their eyes will be in motion whether their attention is directed outward or inward; thinking or observing are both accompanied by lively, unconscious movements of the eye. When we sleep, our eyes continue their activity, moving visibly behind closed eyelids when we're dreaming.

THE GAZE

The direction of the gaze can be an evocative element in a portrait. Down-cast eyes, upraised eyes, eyes looking sideways, even out-of-focus eyes, are all suggestive of states of mind. Generally, any movement at all will be more expressive than simply depicting someone looking straight ahead. Pictures of rooms full of people with fixed gazes may be suitable for covers of paperback books about supernatural possession, or for statements about alienation, but they fall short of being naturalistic. That's not the way people really look.

As with the opening and closing of the eye, the direction of the gaze is telegraphed for all to see by the shapes of the eye whites and the way they frame the iris. But often, what we perceive is the result of very small shifts between the various elements; we rely on our (unconscious) expertise in deciphering the face to follow the gaze and interpret its meaning.

The Upward Gaze

When paintings customarily had a much stronger religious content than they do today, the skyward gaze was used as a convention to indicate an exalted state of mind, or communion with heaven. Even in our secular era, it's difficult to portray someone with up-turned eyes without suggesting some level of metaphorical meaning, unless it's made clear that the person is simply looking at something.

We notice instantly when the gaze shifts from forward to upward, but it isn't immediately apparent what is noticed. This is a good example of how



A rather debatable version of what can be read from the eyes.

There's a strong association between spirituality and the upward gaze. It's not only because heaven is supposed to be up there, but also because we rarely look upward under normal circumstances—it's rather uncomfortable for the eyes. If we do look up, we usually tip the head upward at the same time, so as to keep the gaze level. Looking down, however, is something we do constantly; it's much easier on the eye muscles.

This particular upward gaze is the product of the high arch of the upper lid, the flat line of the lower lid, and the appearance of white below the iris.



much we can perceive without knowing why. In fact, we seem to use several different visual cues in combination. Oddly enough, the most important cue is the shape of the lids and the lids' relationship to the iris. The shape of the iris itself is also a key factor. Only in the extreme upraised position is the white under the eye a major element.

The limit of looking up is reached as the pupil encounters the upper lid edge—this is an uncomfortable posi-

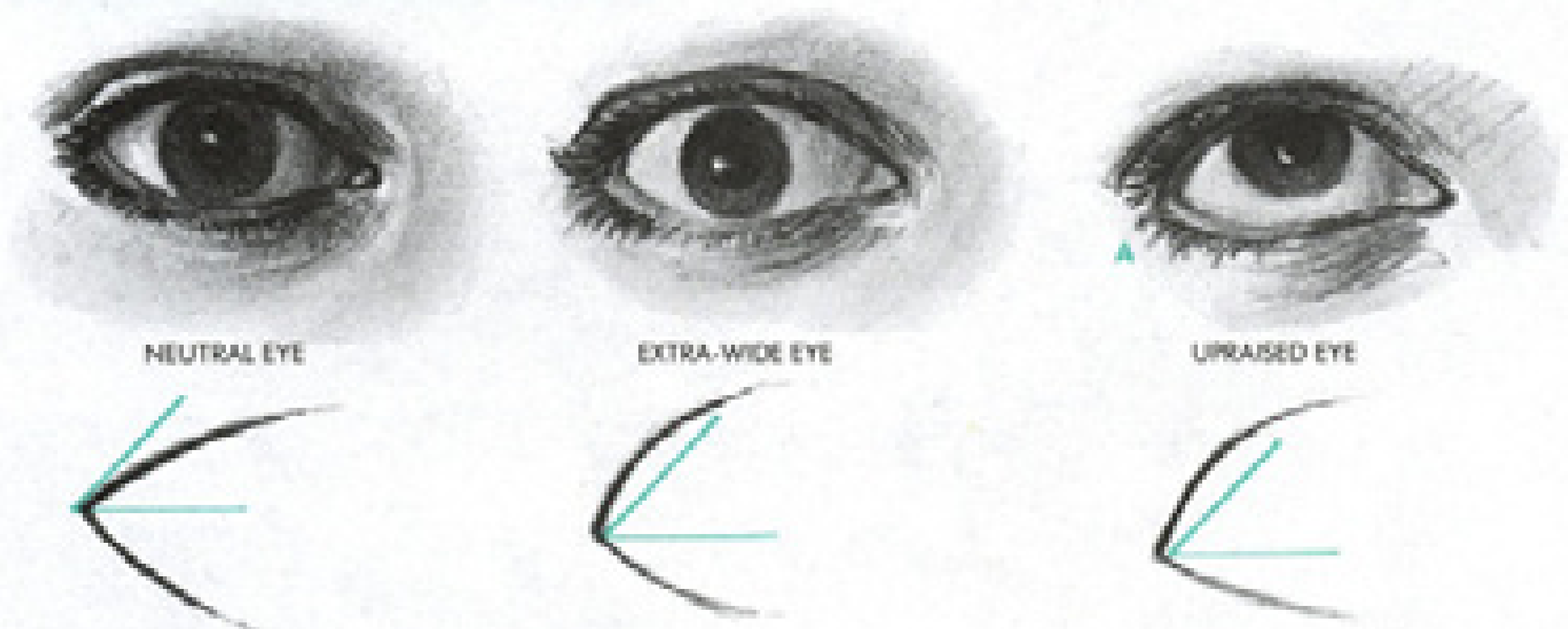
tion and not one that is held for long. In fact, like most of the positions of the gaze besides dead center, looking upward suggests an active interest, an engagement, on the part of the person, simply because it takes a special effort to do.

The first change we notice as the gaze rises is in the relationship of the iris to the eye corner. On most eyes, when the gaze is straight ahead a small portion of the iris always falls below the level of the inner eye corner. We

don't have to be looking up very high before the bottom of the iris rises to this level, then rises higher.

When the gaze travels further upward, the eyelids take on a domelike shape, like a capital *D* lying on its back. The whites of the eye are framed by the sharp upright angles of the upper lid, while the lower lid is almost straight. Perspective makes the iris as a whole appear elliptical; the higher the gaze, the shorter the apparent height of the ellipse.

THE ANGLE OF THE UPPER LID



The angle of the upper lid has a great effect on the way we perceive the eye. It's a key element in telling the extra-wide eye from the neutral eye—more important than the white above the iris. Even in a neutral eye with lots of iris showing (left), the steepest angle the lid makes as it rises to the top of the arch will never exceed 45 degrees (line).

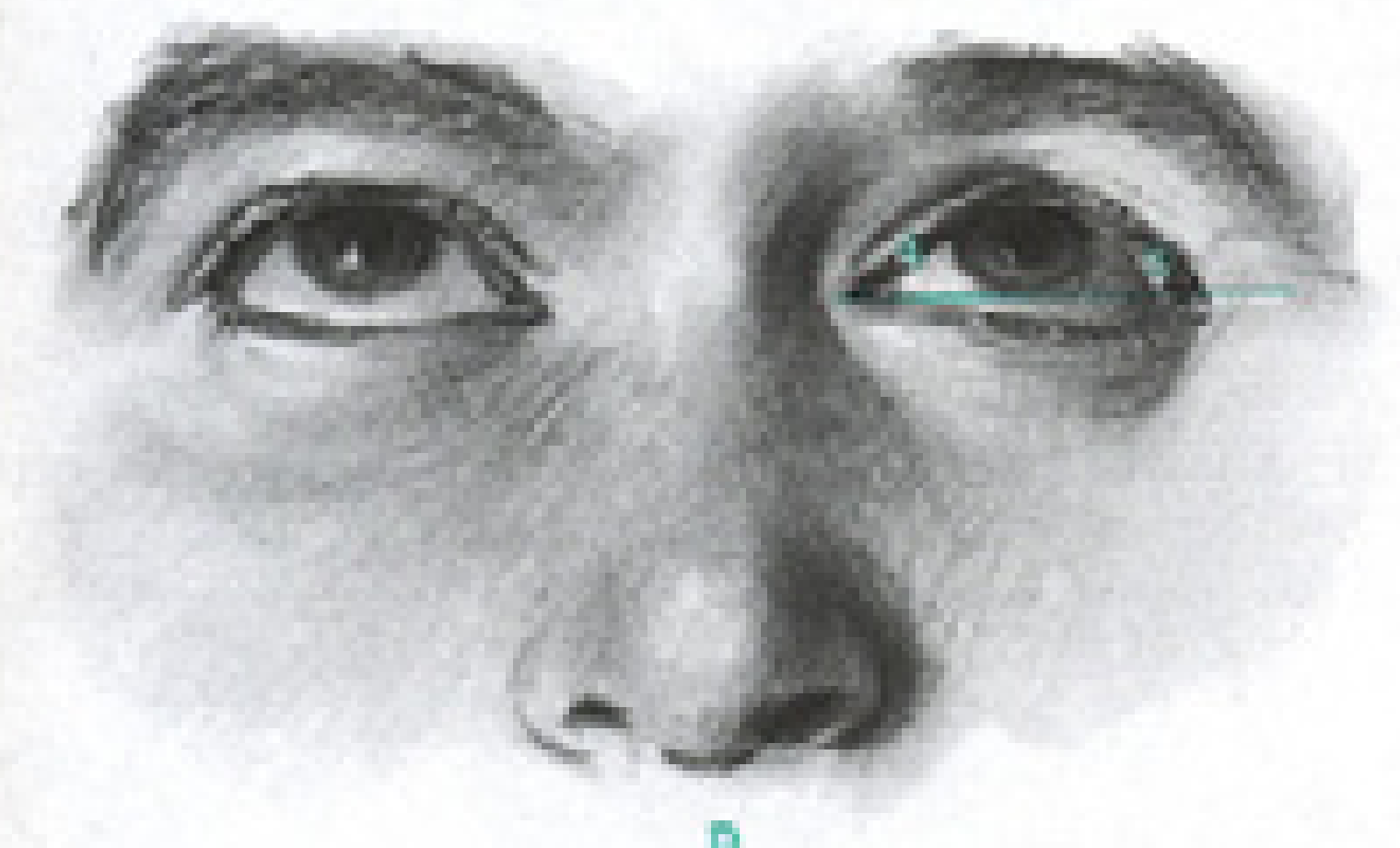
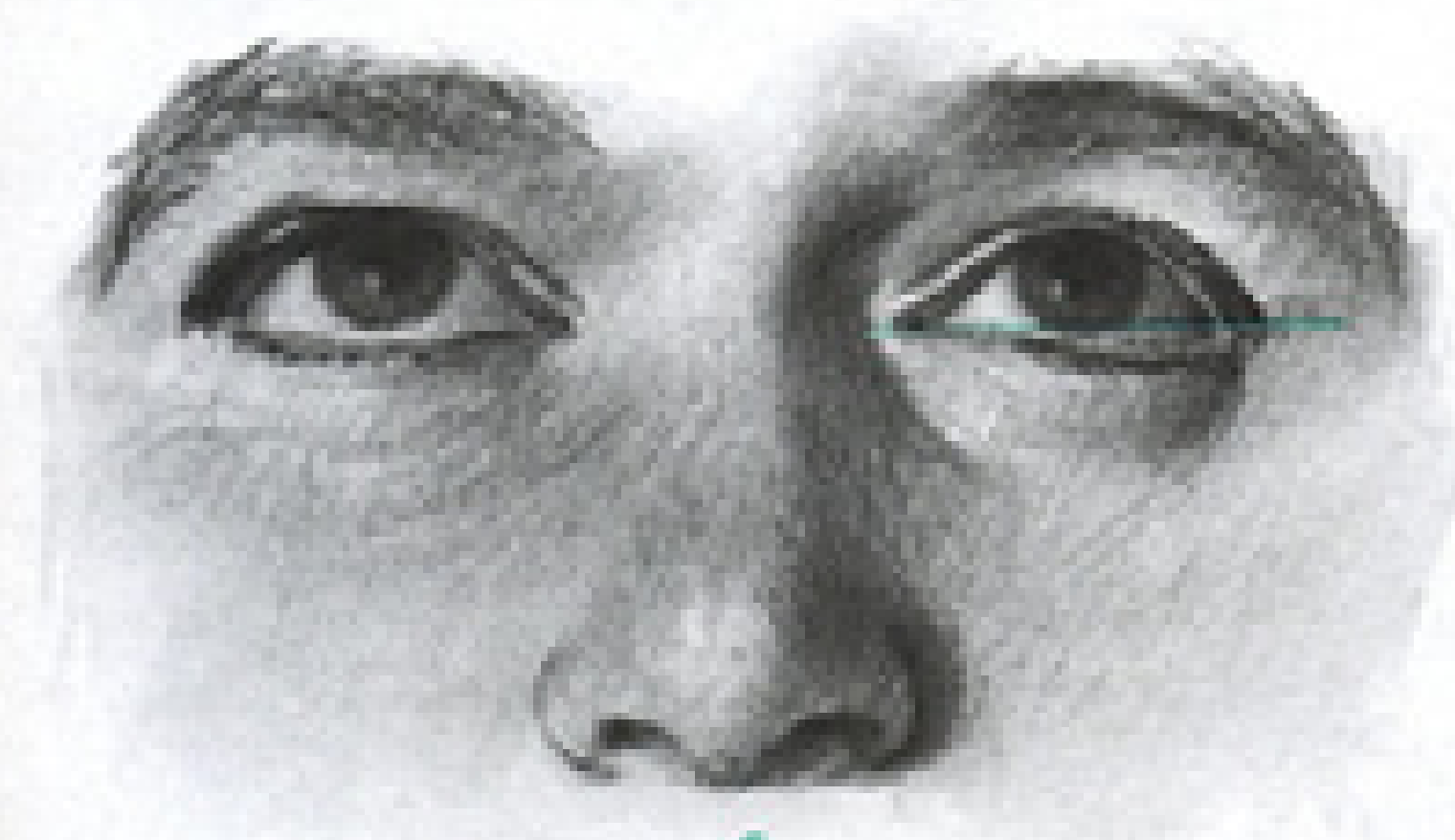
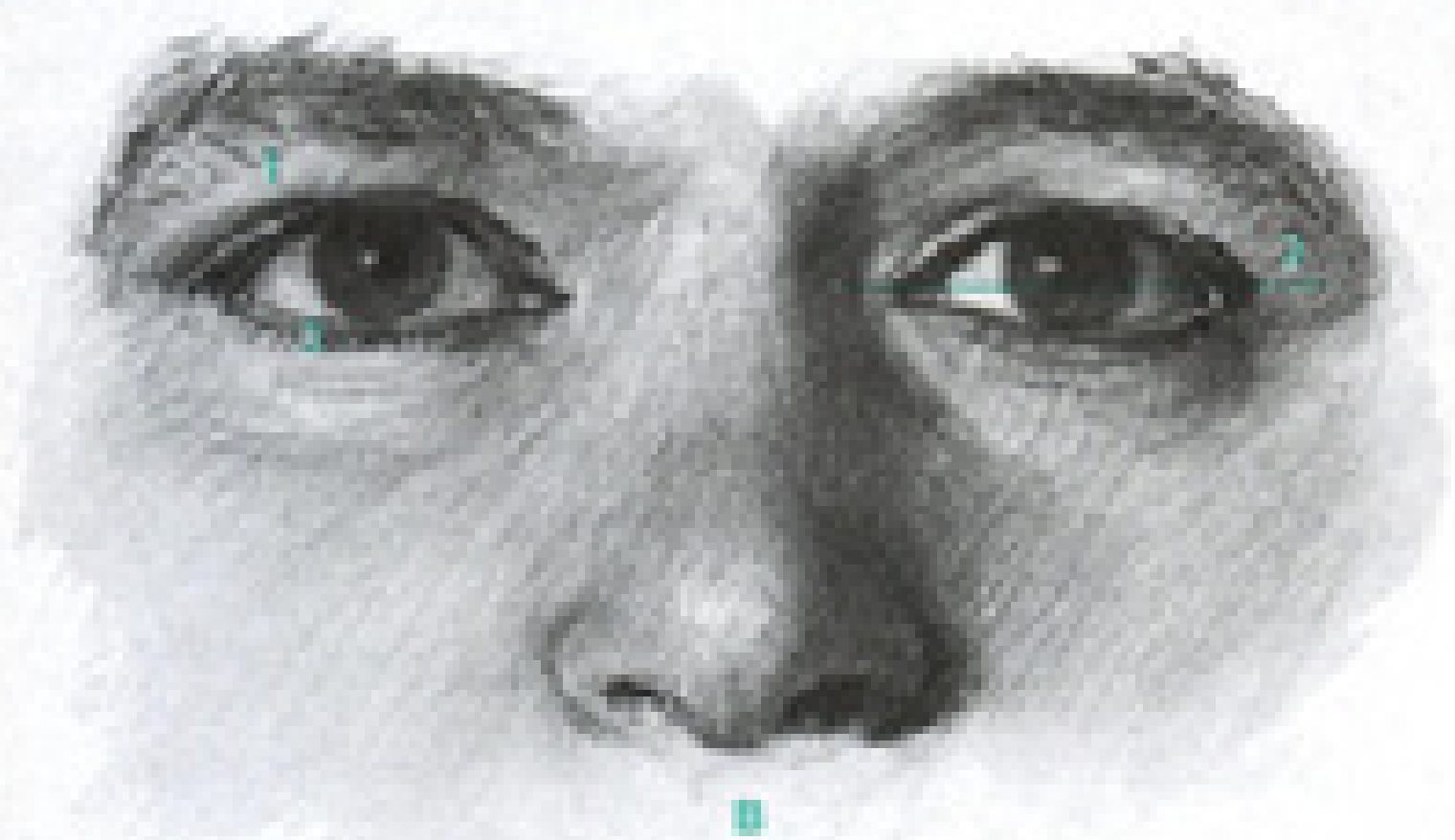
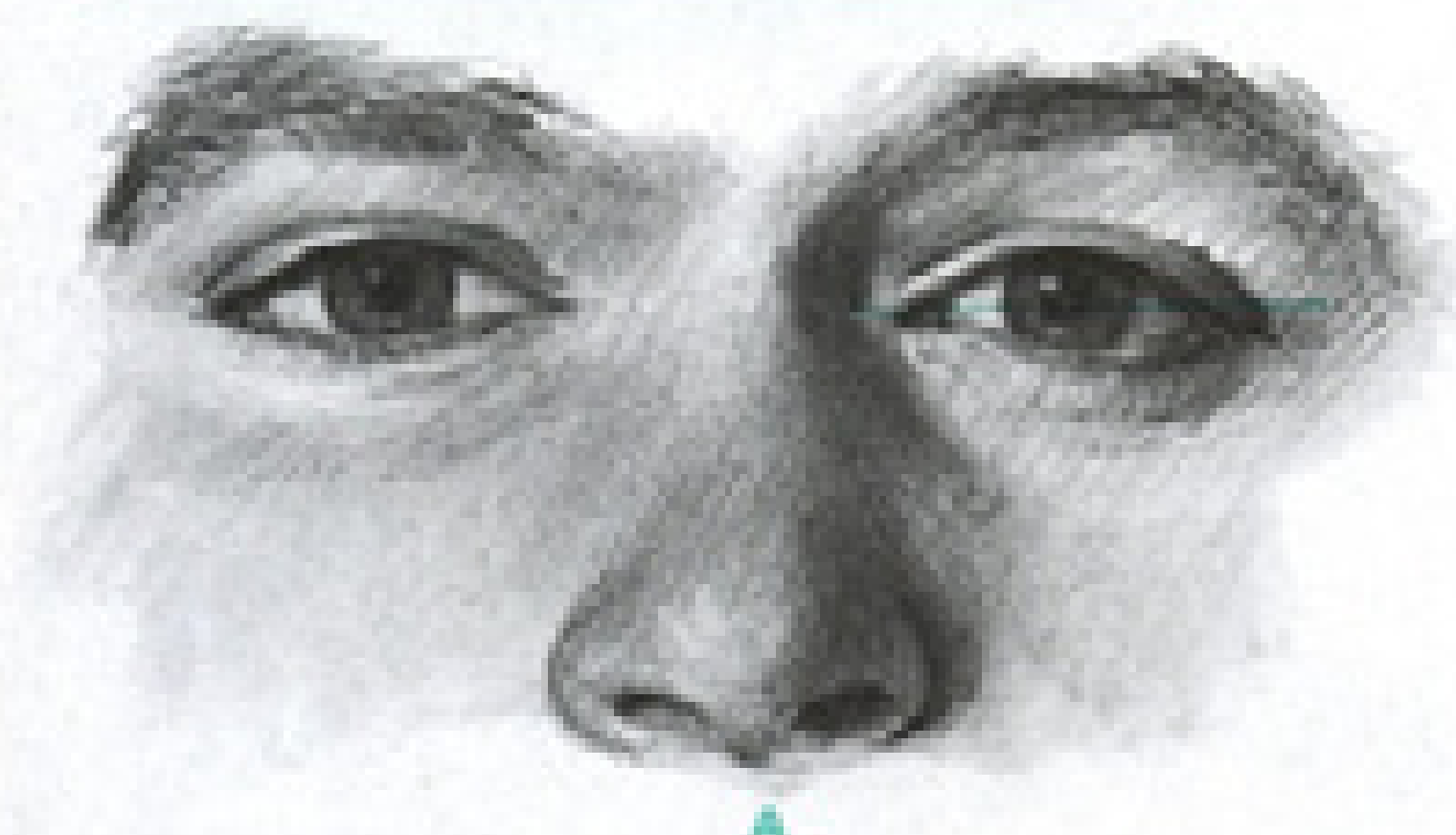
Once either or both upper legs exceed 45 degrees (center), we recognize that the eye is open wider than usual. This rule holds true for nearly every eye. The upraised eye and the widened eye have certain similarities. In both, the upper lid arches much higher on the eye. Here, the angle of the outer leg is nearly identical. What makes the overall shape of the eye different is the lower lid; when the eye looks upward, the lower lid loses some of its downward bow, and appears slightly straighter, particularly in its outer portion (A).



THE CORNER OF THE EYE

One way to find out if the eye is looking slightly up or down is to compare the iris' position to the level of the inner eye corner (line). In a level gaze, the line indicated will cross the lower part of the iris; looking down, the middle of the iris crosses the line; looking up, the iris' lower part rises past the line.

TRACKING THE UPWARD GAZE



When we look up, the eye reshapes itself in large and small ways to accommodate the movement. Even the obvious lifting of the iris has a subtle aspect: the foreshortening of the iris into an ellipse. The first stage of the upward gaze (**B**) is the most difficult to capture. Great care must be taken to get the angle of the upper lid right, and to raise the iris high in relation to the inner eye corner. Note how in drawings **A–D**, the iris is cut by the upper lid line in the same place no matter how it moves.

A. Looking out. A person with a relatively narrow eye opening. Note relationship between pupil and line across middle of corner; when eye is looking outward, line cuts through lower part of iris.

B. Looking up. Even in this first stage of upward gaze, many changes have occurred (**1**). The upper lid is almost fully retracted. Both inner and outer angles steepened. The upward gaze is more obvious in the eye on the left, where the inner leg is now at a greater than 45 degree angle. As gaze gets higher, arch of upper lid continues to increase by small amounts (**2**). The pupil has moved slightly above the midline of the corner. The bottom of the iris is now visible, and the lower lid is slightly straighter (**3**); the higher the gaze, the straighter it gets.

C. Looking higher. As the gaze rises further, the curve of the lids changes more slowly. The upper lid is now more steeply arched—most angles are greater than 45 degrees. The lower lid is closer to being straight across. White begins to appear below the iris, which appears more elliptical, wider than high. The bottom of the iris has now risen above the middle-of-corner line.

D. Upper limit. Limit of gaze is reached when the upper lid can open no further. Above this point the pupil would begin to be covered. Note the flatness of the lower lid, asymmetry of the two eyes—inner leg of eye on left is still less than 45 degrees (**4**); narrowing of iris ellipse; thickness of upper lid facing us more directly (**5**).

THE DOWNWARD GAZE VS. THE CLOSING EYE

The trickiest part of drawing the downward gaze is to not merely end up with a closed-looking eye. When the eyes simply close, the iris and pupil are covered in the process; in the downward gaze, the eye leaves open a space large enough for the pupil to see through. This is accomplished by the bowing downward of the lower lid. A telltale crease, the signature fold for this action, appears below the lid as it moves. As the gaze drops further, the bow gets sharper and the crease deepens. The dip and the crease are the keys to keeping the eye open-looking.

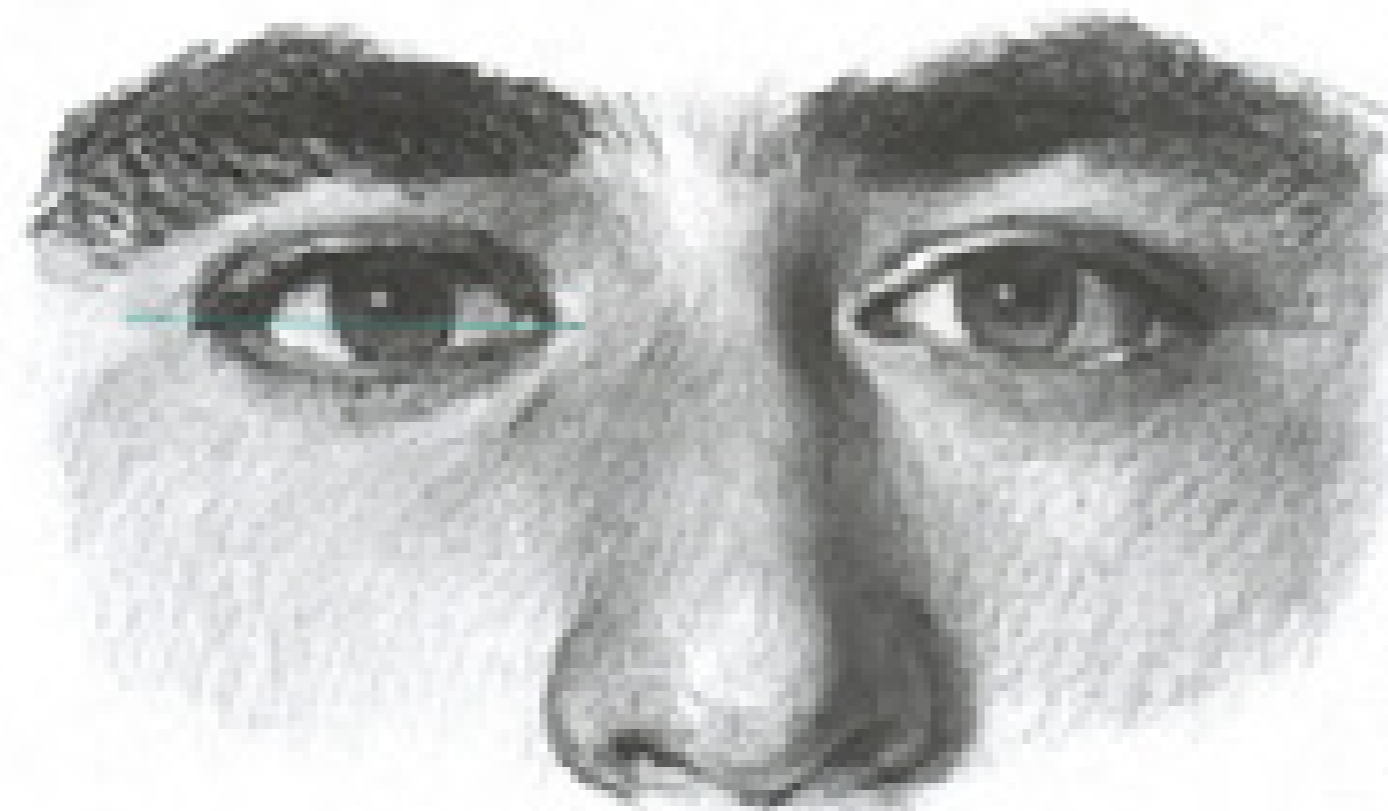
A. Level gaze. Corner mid-line crosses iris about one-third up from bottom. This is the average for most eyes when gaze is level.

B. Looking down. The shape of the lower lid is bowed downward more than in a level eye (1). Note similarity between curve of upper lid in closing eye and downward eye. It's only the position of the iris and the curve of the lower lid that make the two eyes so different.

C. Further down. As the gaze drops further, our view of the eye is more restricted by low angle and by increasing shadow. Note that opening (diagram, left) is just wide enough for pupil. Crease deepens below lower lid (2), while upper lid is more fully exposed (3). Lashes of upper lid in

lowering are more prominent, note closing eye (right), where some upper lid position has eye almost fully closed.

D. Lower limit. In lowest position, the eye is seen as two curved lines with a dark space in between; iris will be vague or invisible within shadow. Space between lines thickest in center (where the iris is) thin at either end. Note how curve of lid lines starts with straight part at inner corner (4), then turns into a full curve around eyeball. Unfolded upper lid with shallow crease or two is at the level where lid normally ends (5). Difference at this stage: closed eye has one curved line (with lashes) versus the open eye, which has two curved lines and a dark space (seen through lashes) with crease below.



A



B



C

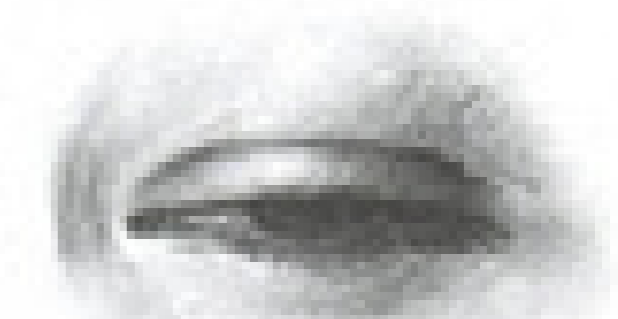


D

EYE LOWERING



EYE CLOSING



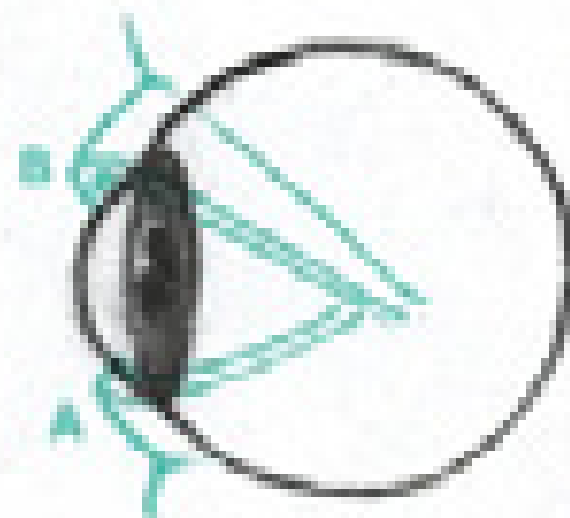
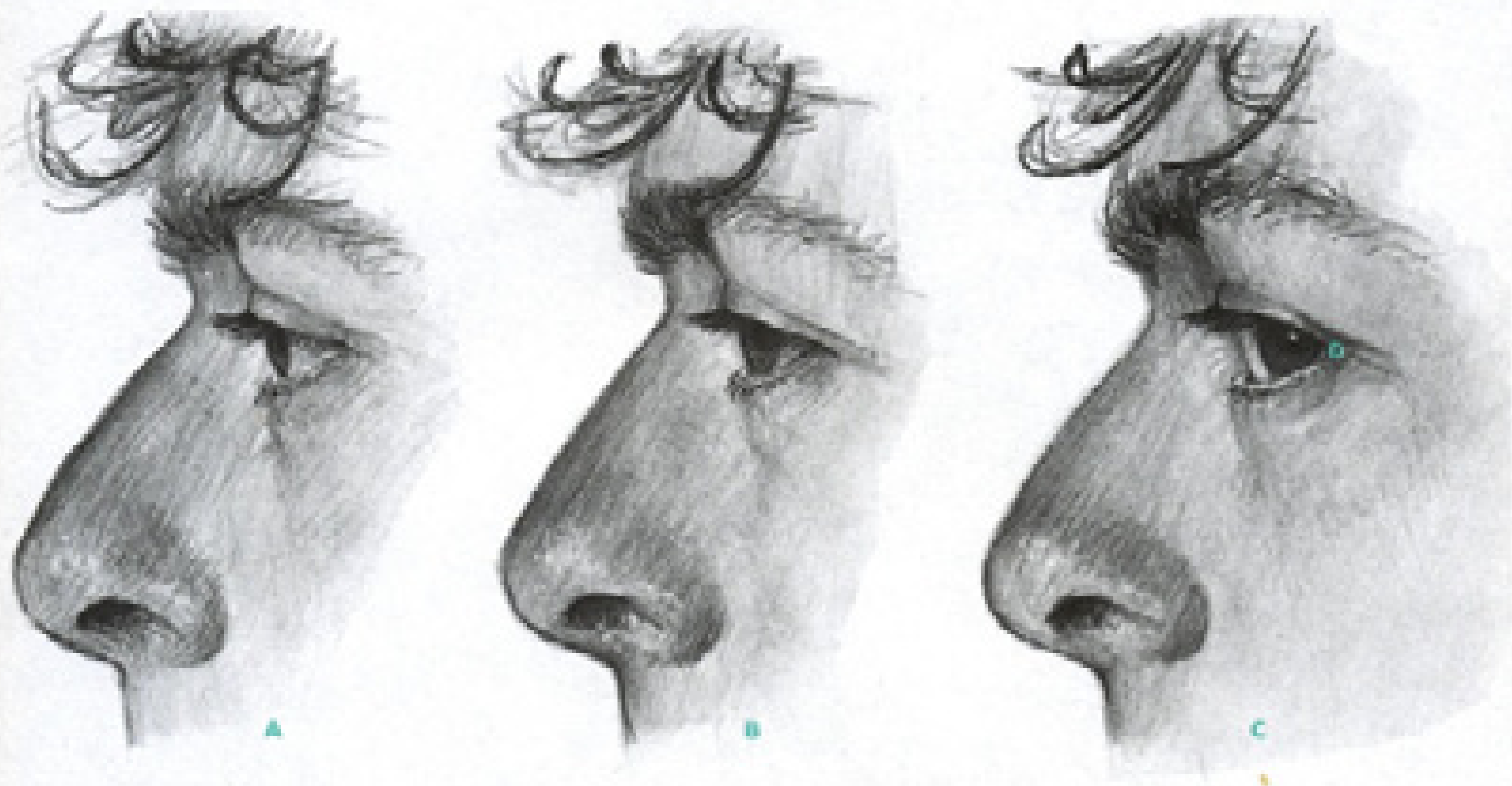
LOOKING SIDWAYS

Depicting the sidelong glance presents few technical problems for the artist. These illustrations demonstrate, though, that more changes in the eye than simply the iris moving to the side. The shape of the eye itself alters depending on the iris position. The rule is that the high point of the arch of the upper lid is always above the iris (it's lifted by the cornea). The lower lid, however, changes very little as the iris shifts. The net effect of the modifications is that the eye alters in shape from oval to almond as the iris turns. The iris itself appears less circular as it turns. In the most extreme position (A) the iris shape is blunt at one end and much narrower than it is high.



LOOKING SIDWAYS: SIDE VIEW

Seen from the side, the iris widens from a narrow block oval, when we are looking straight ahead (A), to an ellipse, when we are looking somewhat to the side (B). The amount of space between the iris and the eye corner steadily decreases. When the glance is directly to the side (C), the iris fills our view of the eye. Its shape appears more circular, and white space has appeared on its far side. It's also widened the eye corner slightly (D). The rim of the upper lid bulges above the iris (A and B) when the lid travels over the tiny mound of the cornea.

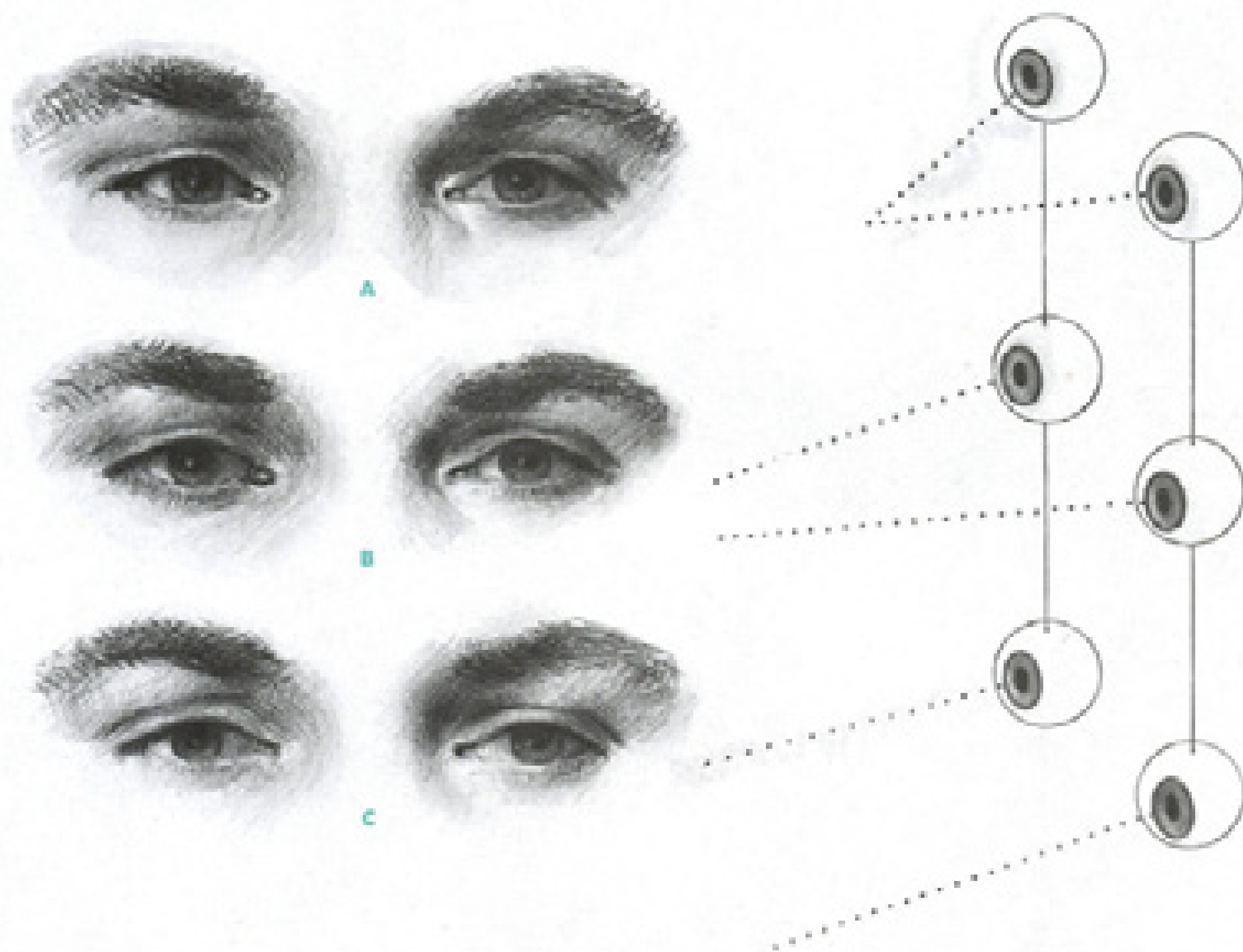


THE CORNEA FACTOR

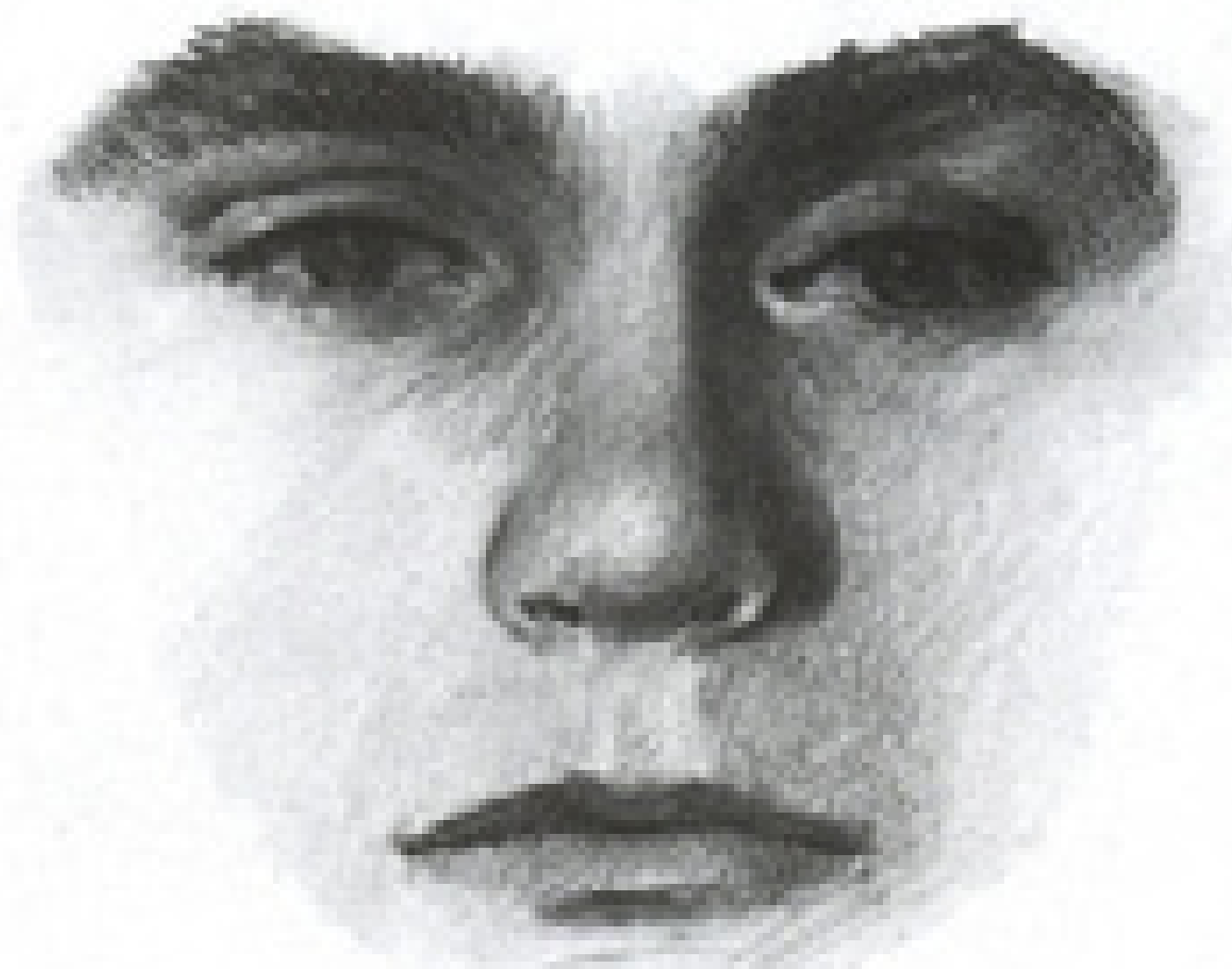
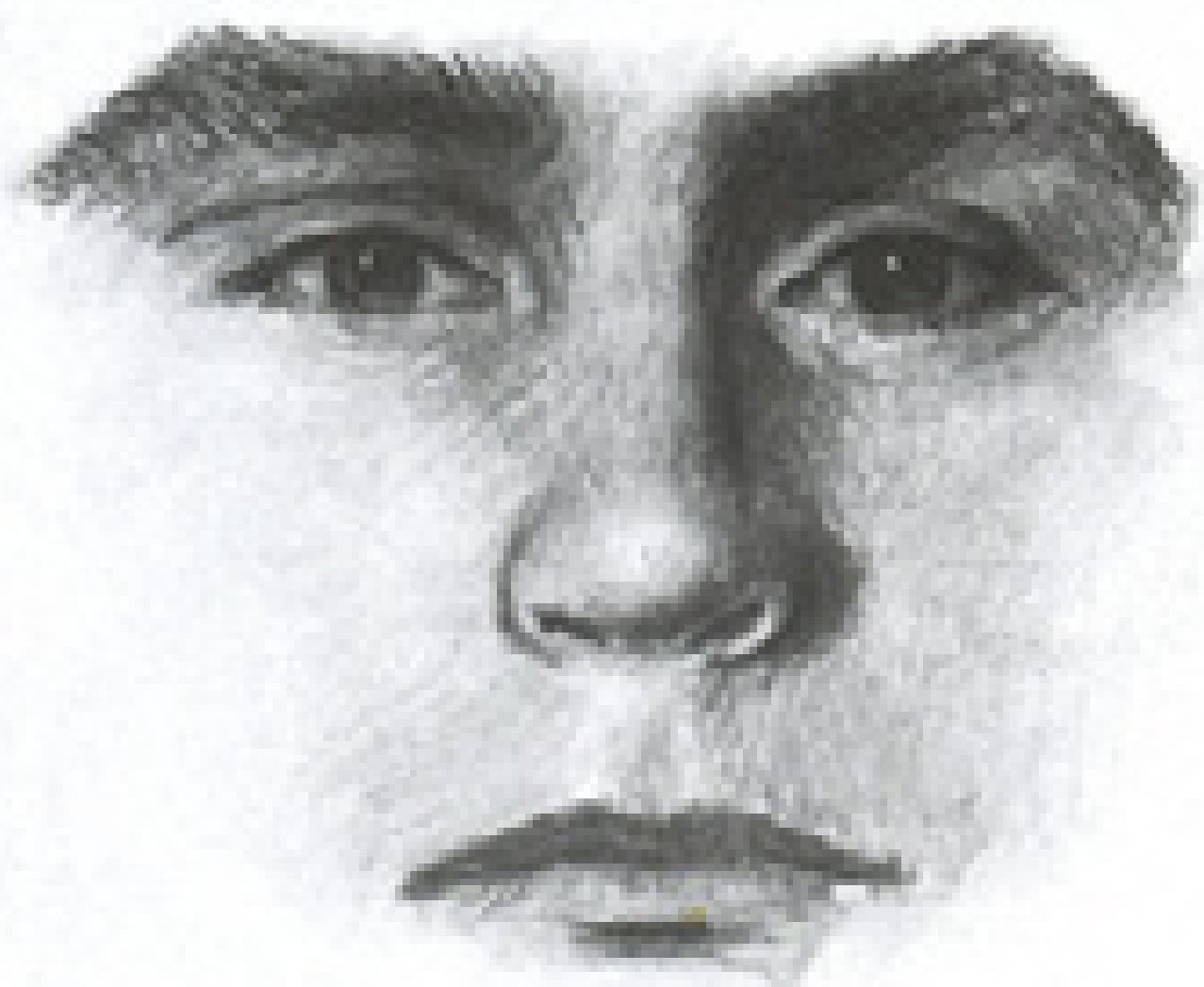
The cornea is a transparent dome sitting on top of the iris. It has a subtle effect on the drawing of the eye. In the level gaze, the lower lid crosses so low on the dome (A), that its curve reflects only the ball underneath. The upper lid, however, crosses a part of the dome where it is higher off the ball (B). It is this slight bulge that we see when the gaze shifts from side to side. The cornea also creates the sharp dip in the lower lid when the gaze turns downward.

THE EYES CONVERGE: NEAR VS. FAR GAZE

We can tell from the eyes if someone is looking at something close or far away. When we look at something of very close range, the eyes rotate so that the irises can both aim directly at the subject (A). This turning inward brings the irises closer together (see diagram, top). The farther away the subject, the more separation between the eyes (B)—up to a point. That point is reached when the eyes go out of convergence, the position the eyes will naturally fall into when we are looking off into space (C).



THE EYES CONVERGE: NEAR VS. FAR GAZE



THE "INWARD" GAZE

There are only two differences between these two drawings: the openness of the eyes and the separation of the irises. The face on the left, with more open eyes and irises centered in the eye, seems more outward looking. The face on the right, with eyes slightly more closed and irises slightly more separated, seems much more detached. We speak of someone with this look as gazing inward, or, less kindly, of being "spaced out."



EYES OUT OF SYMMETRY

This wall-eyed gentleman may not have been as wall-eyed as he looks. The disturbing effect of the eyes being out of symmetry (left iris closer to the eye corner than the right) dominates this portrait, but it's more likely that it was the artist who had eye problems. The *Portrait of Joshua Trevis* by the same artist, Jacob Eichholtz, has eyes with precisely the same problem. A portrait artist might encounter one person like this, but two?

THE LINE BETWEEN THE LIPS

The line between the lips (LBL) is the key to depicting the closed mouth. Draw it first and work outward from there. Not only is it a good way to start a drawing, but it's also the major element in defining the expression the closed mouth carries. Here are the three main variations that the LBL takes in the relaxed mouth. The same underlying pattern—dip and two peaks in the middle, two long curving legs on the sides—is common to all three, whether men's mouths (center) or women's mouths (right).

CUPID'S BOW

The most common type. It has a well-developed central dip and a distinct break between peaks and legs. Note that the end of LBL is on same level as middle of LBL; this is true unless the head is tipped.



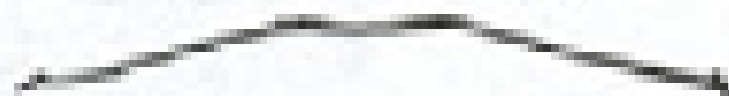
STRAIGHT ACROSS

Not quite as straight as it looks. Really a flattened version of Cupid's bow: dip and two peaks still present—just barely. The three-part pattern of lips goes back to the development of the embryo and is present in every mouth.

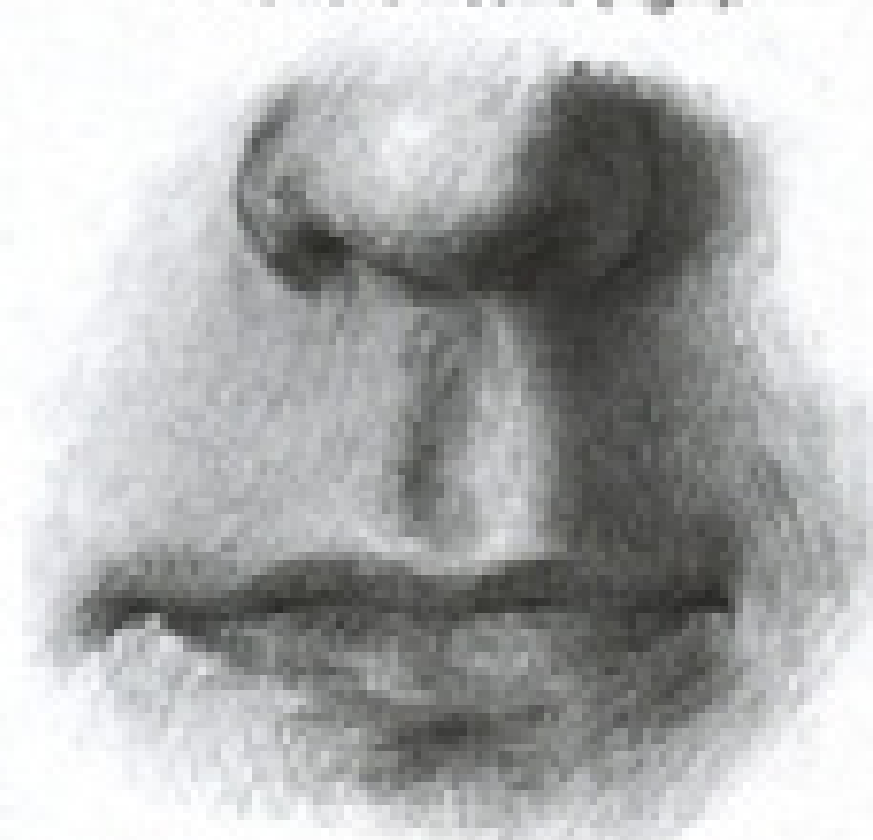


UPWARD ARCH

The arch shape is really another variation of the Cupid's bow, with lower outer corners and a high middle. Usually, the arch is only moderate, like the mouth at center; a high arch (right) is unusual.



A variation of this type occurs if lips in relaxed mouth don't quite meet. What was the LBL in the closed mouth becomes upper rim bordering teeth.



Key Elements in the Closed Mouth:

The Line between the Lips

The way you draw the line between the lips (LBL) will determine 75 percent of the expression you give to the closed mouth. Though lips vary radically, the three main forms of the LBL apply to most mouths:

1. Cupid's Bow. The most common pattern. A dip in the middle, two peaks, and a long decline to the corner. The outer portion of the line may curve up slightly, or it may be straight across.

2. Straight Across. This should be thought of as "more-or-less" straight across. The "more-or-less" is important. The LBL of a relaxed mouth is never a perfectly straight line. On those people where it seems to be straight, a careful look will show that it's really a flattened form of the cupid's bow, with the same dip-and-two-peaks pattern—sometimes barely evident.

3. Upward Arch. The cupid's bow pattern but with the LBL much higher in the middle than at the ends. This type

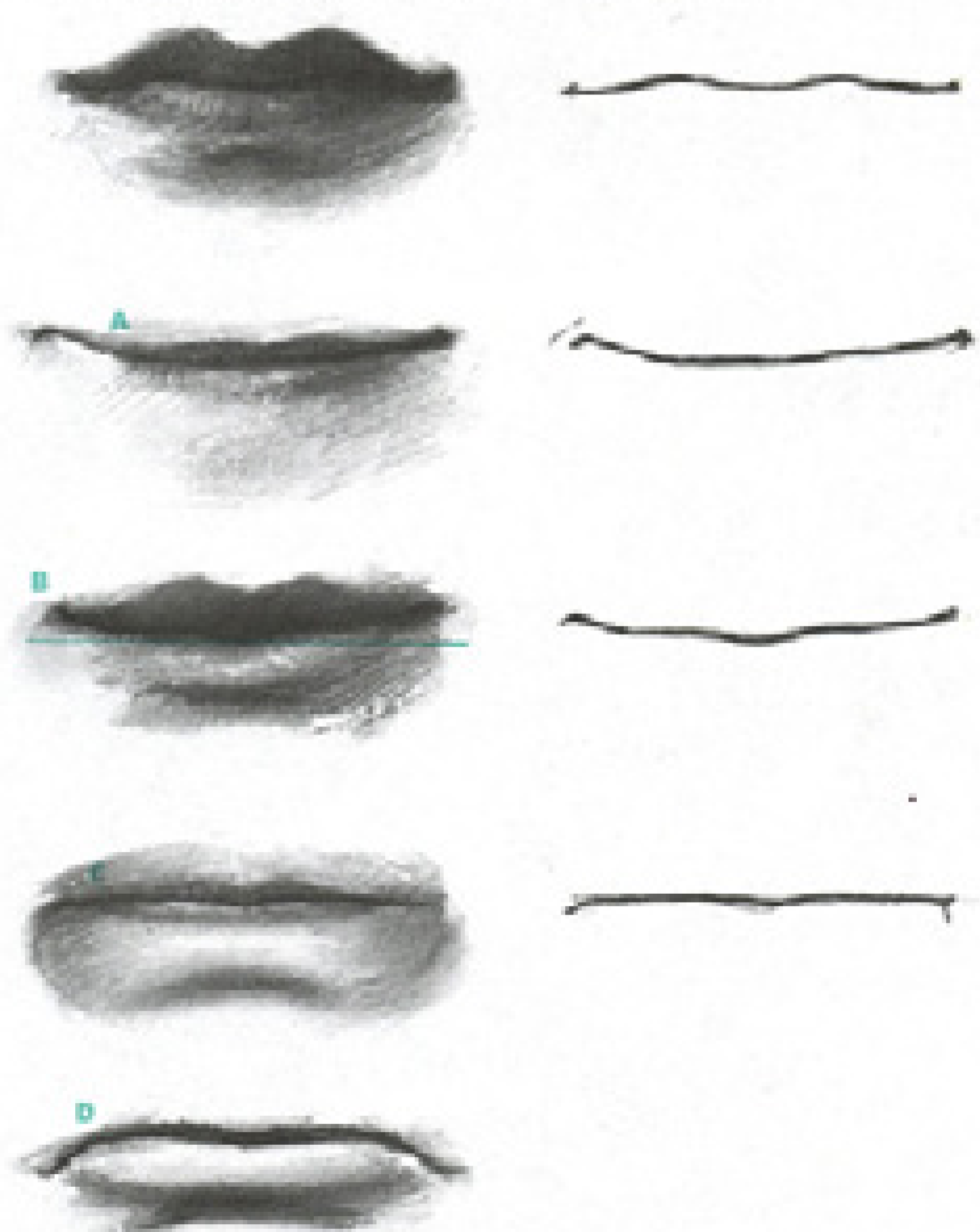
of mouth is one that can most easily suggest a negative expression if it's not well drawn.

When the mouth is relaxed, the LBL in all mouth types will have key elements in common. The direction of the line will change smoothly, not abruptly. The outer end of the LBL will always be either even with or a bit below the center, never above. And if the line of the LBL appears straight, as in 2 above, the upper lip will be full, not compressed.

THE LINE BETWEEN THE LIPS IN ACTION

There are some general rules for what makes the line between the lips (LBL) appear neutral. Ordinarily, a mouth reshaped by muscle contraction will show one or more of the changes listed. If you don't want the mouth you draw or paint to have an expression, these are things to avoid. If you do want an expression in the closed mouth, it may well include one of these elements. Bear in mind that the expression in the mouth can be quite subtle; if the expression in the eyes is strong enough, we tend to perceive the mouth as sympathetic.

If the mouth is neutral, it will not have LBL with abrupt changes in direction or extending well past end of lips. The ups and down of the LBL in the relaxed mouth are gradual. Only when pulled by muscle contraction will the LBL show a sudden break in direction (**A**). The new direction may be up, as here, or down. Usually the same action will pull the LBL well beyond the visible end of the lips. Normally the LBL ends just beyond the end of the lips. An LBL end higher than its center is a definition of the smile. (**B**) A smile begins as soon as either or both of the LBL ends move above the LBL center. (The green line makes this relationship clear.) A relaxed mouth will never have the LBL end higher than the middle. LBL with no kinks and with a thinned upper lip occurs when the mouth is compressed or stretched. But some LBLs have hardly any kink to begin with. The combination of thinned upper lip with straight LBL makes this mouth look tight-lipped (**C**). Another version of this is (**D**); here, not stretch, but the upthrust of the lower lip has eradicated the usual two-peaks-and-a-dip pattern and hidden much of the upper lip.



THE CORNER OF THE MOUTH

As anyone who has ever picked up a pencil knows, the expression of the face is based on the corner of the eyes and the corners of the mouth.

—E. F. Gombrich, *The Story of Art*.

The above statement is really more misleading than helpful. The corners of the mouth *do* change in most facial expressions, but so does the line between the lips, the shape of the lips, the cheeks, and the chin. None of these things change by themselves—they're all connected. Taken together, a set of changes occur that we recognize as an expression.

Creases around the Corner

The "corner of the mouth" is an interesting location. The spot where the line between the lips ends is a veritable Times Square for facial muscles—more of them converge on that one point than anywhere else on the face.

As we age, the crease at the mouth corner tends to lengthen and deepen, scooped into the face by the repetitive movements of the mouth. Eventually, it may join with another fold created by mouth movements, the *commissural fold*—a vertical wrinkle that brackets the mouth and chin like parentheses. It's located right at the point where the chin turns from front plane to side. It takes over where the nose-to-mouth fold leaves off; sometimes the two folds connect, and then one long curving fold extends from nose to chin. Together, the mouth-corner crease and the commissural fold can make an upside down L-shape continuing the mouth line.

By themselves, none of these folds will make a mouth smile or frown, and in fact can be confused with the creases that are created by expression. But as long as the lips and LBL and cheeks are in their relaxed form, the mouth as a whole will look relaxed. In your drawings, note where the LBL, which is so important in expression, ends and where the creases around the mouth begin. Usually there is a sharp break in direction between mouth and crease that helps clarify things. Whenever possible, avoid working from photographs. These details are always much clearer when you use a model.

THE CORNER OF THE MOUTH

The corner of the mouth receives a dense concentration of facial muscles. As a result, it's one of the more sensitive areas of the face in terms of our ability to precisely control its movement. In any stretching movement of the mouth, it's one of the first things to show a change.



Here is a relaxed mouth (top), contrasted with the same mouth in the first stage of a smile. A little angled crease (A) appears as the lip end is pulled deeper into the face. The pull is stronger on the opposite side and the crease is deeper. This is the face of a seventeen-year-old; with time, the crease becomes a permanent one, with slightly softer edges.

THE FOLDS AROUND THE MOUTH

The folds that develop around the mouth are some of the deepest on the face. Here's the mark of forty years on a woman's face; the particular pattern shown here seems to be more common with women than men. Though the wrinkle pattern is similar to that of the mouth in certain expressions, we see the mouth as neutral because the LBL, the lip shape, and the shape of the cheeks are all relaxed.

AGE TWENTY

At age twenty (top), the mouth corner is marked by a short, oblique crease. The slight mound outside the crease (**A**) is the "node"—a thickening in the face where a number of the mouth-moving muscles converge. Its form helps to define the mouth corner. There are hints of the way the face will look in forty years in the very soft turnings alongside the mouth and on the cheeks; the crease alongside the chin falls at a natural plane turning between front and side.



AGE SIXTY

At age sixty (bottom), deep lines around the mouth have appeared. The corner of the mouth crease has deepened and lengthened, making the LBL appear to continue much further than it does; it actually ends at (**B**). From there what we see is a skin fold, not a real gap. The sharp turning is where a separate crease, the commissural fold, begins (**C**). It's often one of the deepest wrinkles on the face. It runs straight down alongside the chin, marking the border between front plane and side. The nose-to-mouth fold has also deepened (**D**); on many faces this joins with the commissural fold, making one long crease from nose to chin. Other changes with the years include a deeper crease under the mouth and a fuller line of the jaw.



The Closed Mouth: Five Muscles

UPWARD PULLER I: THE SNEERING MUSCLE

If the corrugator makes us human, the levator labii superioris, the sneering muscle, is the muscle that makes us obnoxious. If there was a popularity contest for facial muscles, this one would lose, hands down; there's no elegant or flattering or nice way to use this muscle. We tend to use it when we think something stinks, literally. Or when we're furious. Or when we're crying our hearts out.

What the levator labii superioris does in particular is to lift the upper lip in a sneer. The "lip raiser" also curls up the nose and wrinkles the eye area in the process. Its distinctive effect on the countenance, when acting alone,

might be out of place in a portrait, but it does appear in art in various other applications.

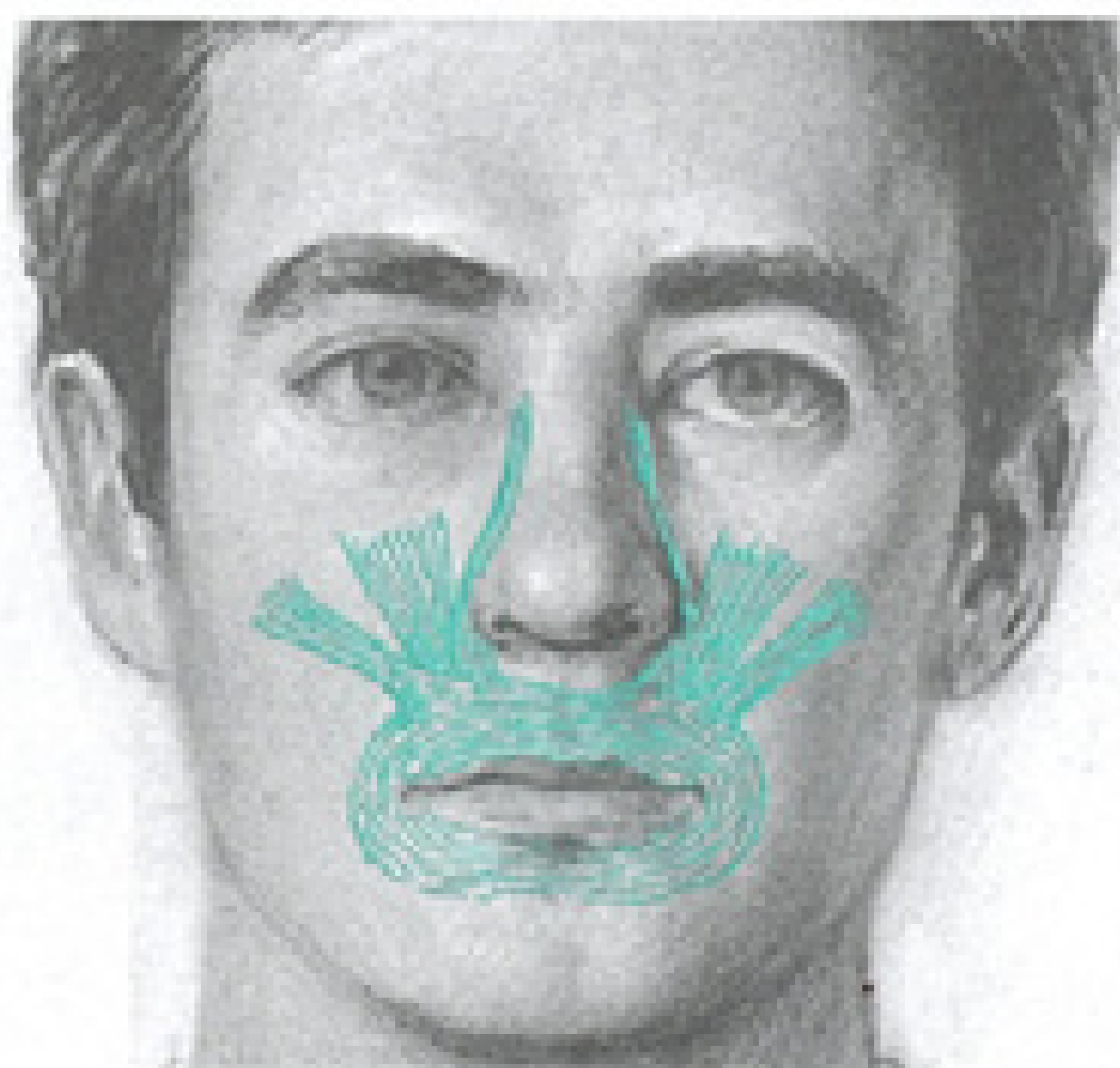
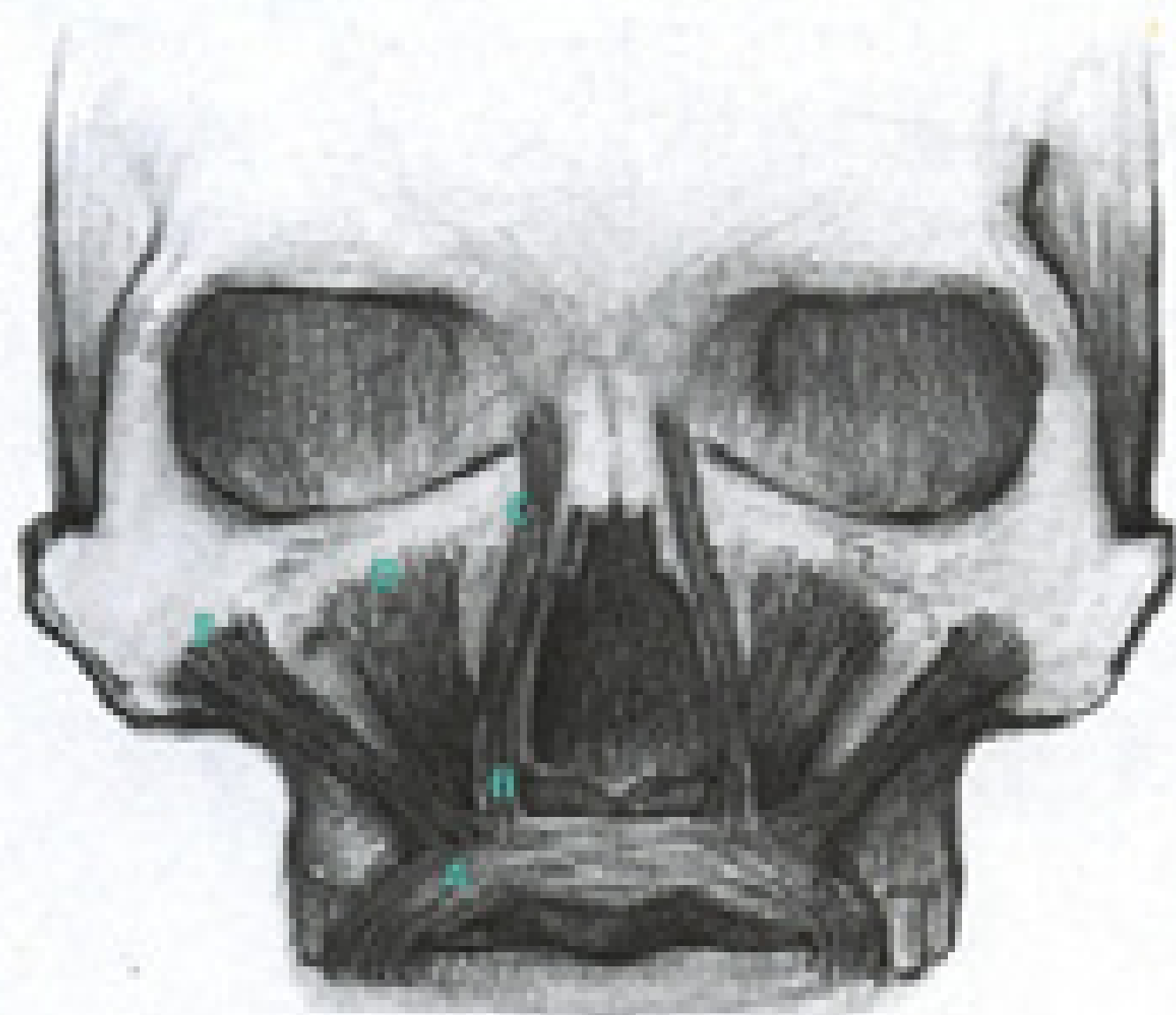
Three Branches

The muscle form of the levator labii superioris is like a river with three branches. All three branches come together and attach to the same spot: the circular muscle surrounding the lips, right below the wing of the nose. Some of the muscle fibers also attach much closer to the surface, along the skin line of the nasolabial fold (which their action deepens), and into the nose wing. If you sneer, you can see—and feel—the location next to the nose where all three parts of the muscle attach and the sharp crease that appears when they contract.

After they leave their shared attachment, the three branches separate as they travel upward to their respective bony origins. One branch goes almost straight up alongside the nose, where it has a long attachment that goes as high as the nasal bridge. The middle branch attaches to the bone of the upper jaw, just below eyesocket. The outer branch, usually referred to as zygomatic minor, is fixed to the cheekbone at its widest spot, where it turns the corner to the side. We group these muscles together because the effect of their action is so similar: when any one contracts, it squares off the upper lip. Often, one branch contracts while the others relax.

Even though the mouth may look the same, the upper face, nose, and cheeks

LEVATOR LABII SUPERIORIS: THE SNEERING MUSCLE



The levator labii superioris pulls the upper lip into a squared-off shape, the mouth of disgust. The sneering muscle pulls on the mouth indirectly: None of its strands attaches to the lips themselves. Instead, it attaches to the circular muscle of the lips (A), the nose wing, and the upper nasolabial fold (B). The upward pull on the skin and muscle surrounding the lips drags the lips upward as well. There are three independent sections, which can all accomplish the same task: The nasal branch is fixed alongside the upper nose (C); the middle branch is fixed underneath the eye socket (D). The last section, zygomatic minor, is treated by some anatomists as a separate muscle. It attaches on the corner of the cheekbone (E).

look a great deal different depending on which branch is contracting. We'll describe the common element—the mouth—first, then look at the differences between the branches.

Effect on the Mouth

The line between a sneering and a relaxed upper lip can be a fine one. Artists occasionally find themselves struggling to take the sneer out of a mouth without quite knowing how it got there. What should they know that would help them?

First, don't bother redrawing the lower lip. The sneer only affects the upper lip, leaving the lower just the same. Second, watch the line of the upper-lip margin. The basic effect of the sneer is the same as pushing your upper lip flat against a piece of glass. The lip is flattened, pushed back, and widened. This changes the upper margin from "stretched M" to "square arch." The lip becomes more even in width and drops straight down to its corners, rather than tapering. Don't allow this shape to be approached if you want to avoid a sneer.

As the upper lip curls upward, it lifts slightly off the lower lip. The lift is strongest in the outer ends of the lip, and here the gap between the lips widens.

People often sneer with just one side of the lip. Then the changes are only seen on that side, and the other side remains relaxed.

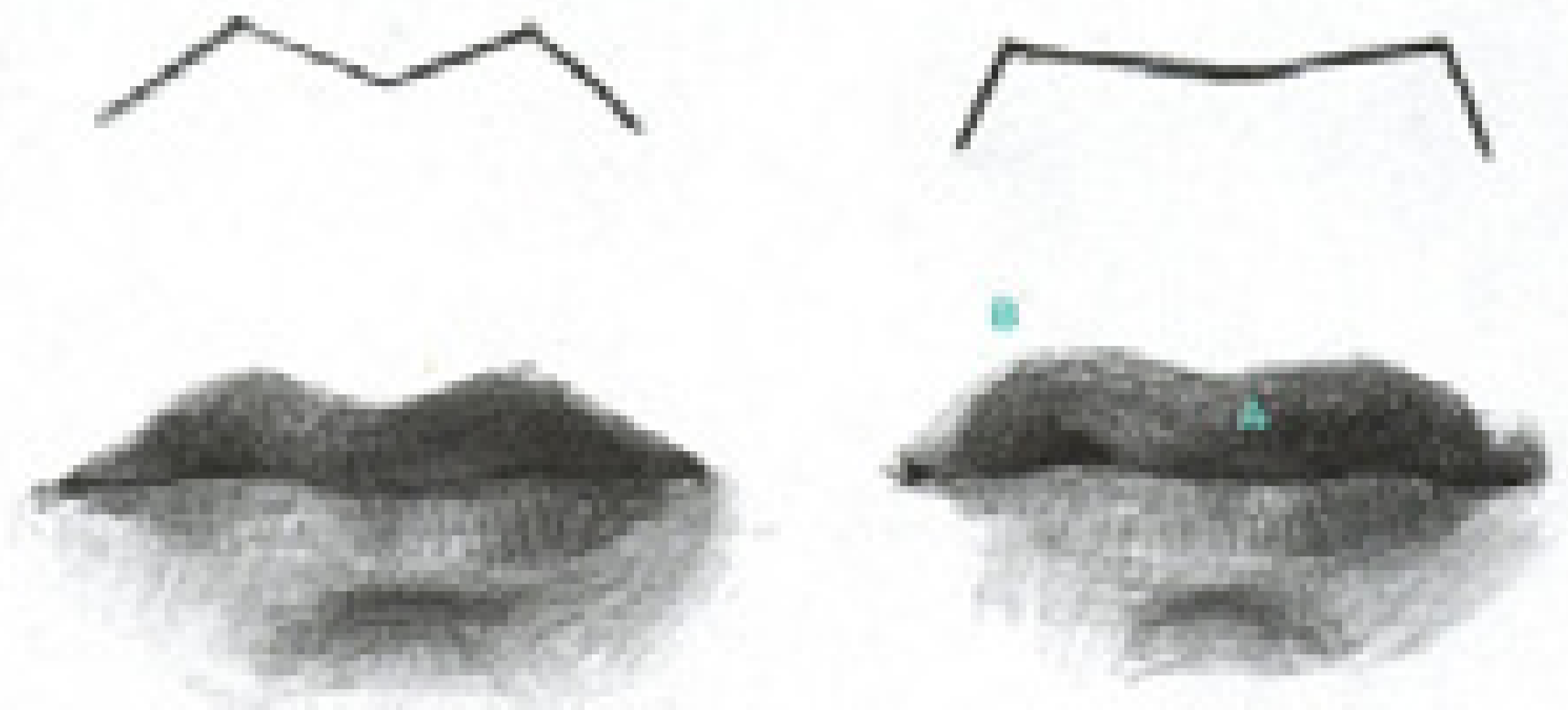
Changes in the Upper Face:

Middle vs. Nasal Branch

You can't sneer without redoing a bit of the upper face as well. Depending on which branch of the muscle you use, you may end up with a little bit of nose and cheek, or the entire face transformed, all from the simple fact of lifting the upper lip.

You can demonstrate on your own face the difference between the two branches. An ordinary sneer uses only the middle branch, which takes less effort. But if you really put your heart in it and concentrate on wrinkling up the nose as well, you'll end up using the inner branch. You can feel the lift in the cheeks right across the face. Isn't it a lovely expression?

THE SHAPE OF THE SNEER

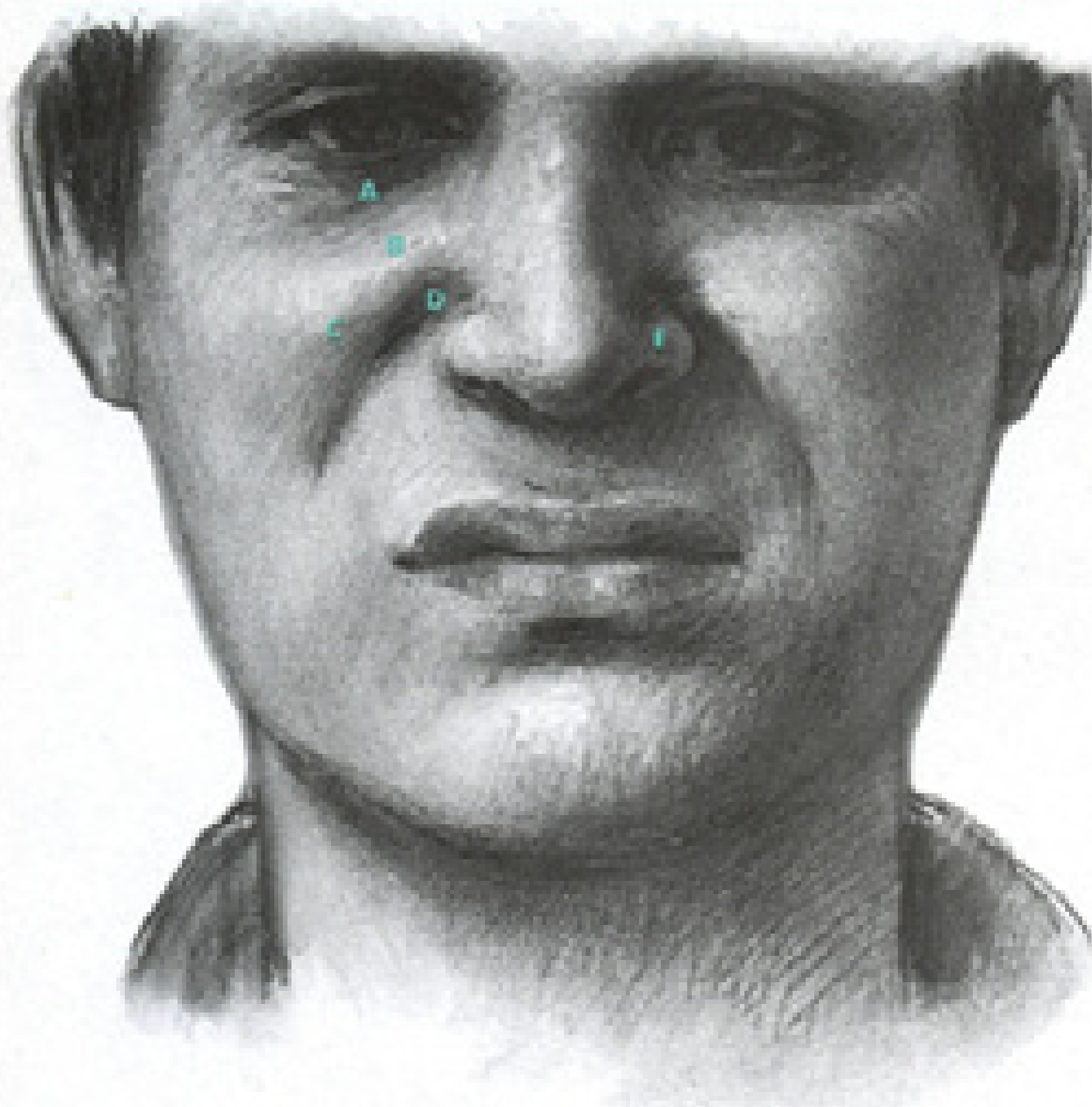


The sneer affects only the upper lip. It's pushed up and back into the face; more inner lip is exposed, so the whole lip looks thicker. A little crescent-shaped crease often appears above the middle. Above the lips, I've drawn the key to the difference. In the sneer, the M shape of the relaxed lip is squared off: (A) the middle has been thickened and (B) the corners have been squared off. Recall that the relaxed lip always tapers from center to outer corners: here you will note that is not the case—the lip appears equally wide throughout.



The sneer pushes the upper lip back into the face, as well as pulling it upward. Note the change in the shape of the outer part of the lip; it no longer tapers, but is thick and even-shaped; it drops almost straight down to the outer mouth corner. The nose also has its wing lifted by the action. The muscle attachment is at (A). Anyone who teaches a portrait class will see students accidentally draw the mouth on the right. It doesn't take much.

LEVATOR LABII SUPERIORIS: TWO BRANCHES



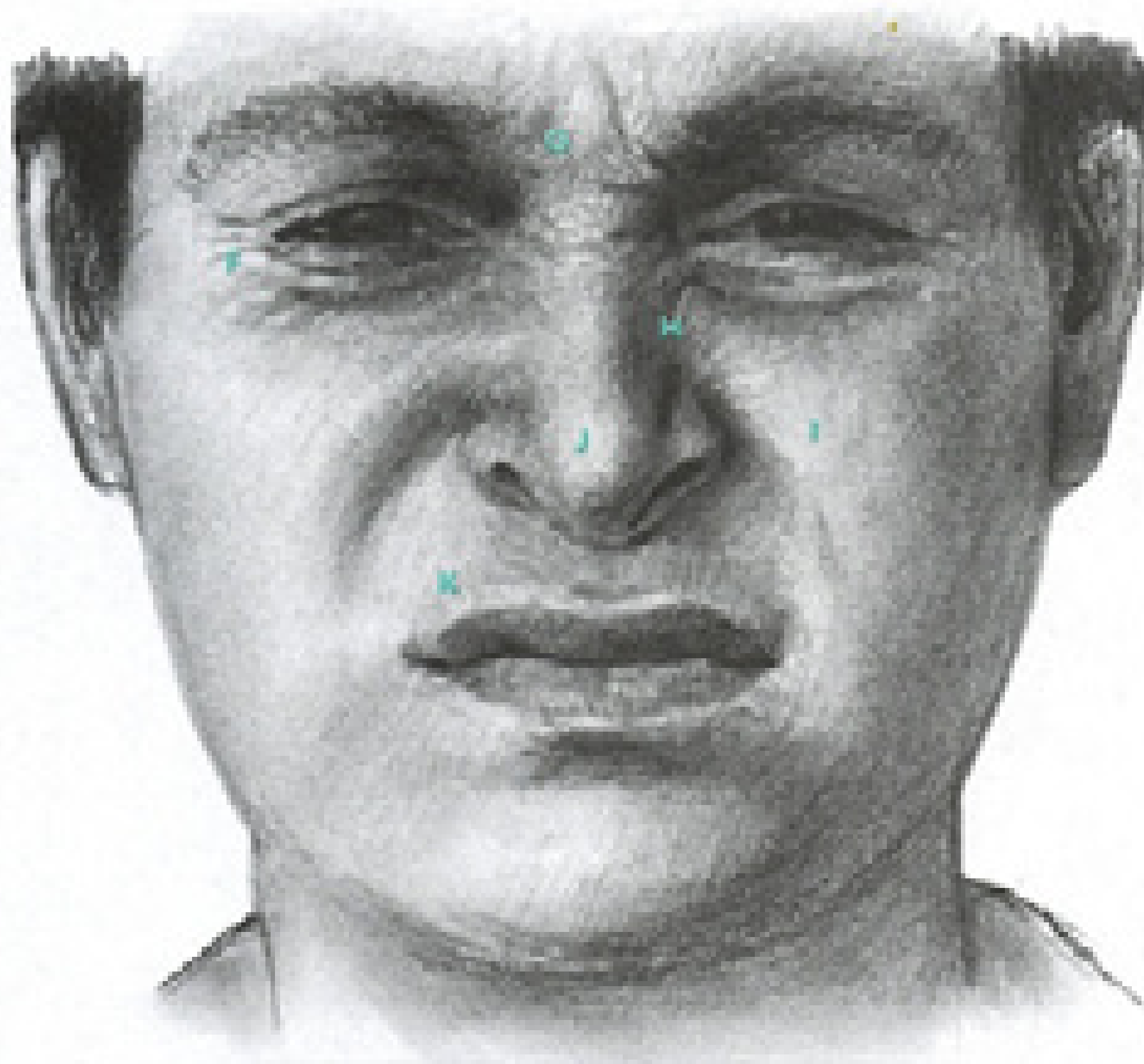
The difference in the upper halves of these faces (the lower halves are almost identical) is the difference in the actions of the two parts of the levator labii superioris. The inner, nasal branch of the sneering muscle (bottom) gives the face a crinkled-up look when it contracts, because its contraction triggers the orbicularis oculi and part of the corrugator. The middle branch of the muscle, if its pull is strong (top), puffs the cheeks and wrinkles the eye a bit. Both create the sharp, hooked crease around the nose, and both pull up on the nose wings.

MIDDLE BRANCH

- A.** With strong pull, pushing up of cheeks "backs up" all the way to eye, creating crease along edge of eye socket.
- B.** Middle branch fixed to bone here.
- C.** Inner cheek bunched up in curved, vertical mound, thickest along naso-labial fold, fades out above and to the outside.
- D.** Signature wrinkle of the sneer. Hook-like fold, deepest along nose wing, shallower below, with very sharp edges. Little hollow spot with ridge above often forms here.
- E.** Wings of nose pulled up toward eye, pointing the nose downward. Muscle attaches to skin next to and on nose wing.

INNER BRANCH

- F.** Mild contraction of eye-circling muscle, orbicularis oculi, triggered by contraction of inner branch. Eye squints, and crow's feet, lower lid folds, and inner, star-shaped wrinkles appear.
- G.** Eyebrows pulled down tightly by partial contraction of corrugator. Shallow vertical wrinkles appear between the brows, and star-shaped wrinkles below.
- H.** Creases run alongside nose.
- I.** Cheeks rise up all across face, but pile up deepest here.
- J.** Nose pull very similar to above, but more straight up, pointing nose more.
- K.** Mouth identical to above.





Romance seems to be the furthest thing from the mind of the young woman in this poster for a movie about adolescent love. Though the young man shows the proper readiness for a tender kiss, her face seems to be registering disgust. Kissing is normally an action that makes very few demands on the facial muscles. We close our eyes, open our mouths, and make contact. The problem here is that there are no less than three separate cues that her sneering muscles are active. It's safe to assume that sneering was not the effect intended.



She appears disgusted because her upper lip shape (A) is too square—the middle straight section is too long and drops too sharply to the corner; the upper lip (B) appears drawn back into the face instead of sticking out further than the lower lip, as is normal; she has a “sneer pocket” (C) by the nose—a signature wrinkle of the action of the sneering muscle; it never appears on a relaxed face. The crease of (D) is another accident—no such crease could exist. By relying too heavily on photographs, illustrators may misinterpret or exaggerate certain details.

“Corrected” drawing of the mouth. To eliminate the sneer, the crease is removed from alongside the nose, and the upper lip is drawn with a much shorter middle portion, along with less steep outer corners. (B) is also vanquished, for good measure.



The difference between the two actions relates to the way the two muscles are attached. The fibers of the middle branch, fixed below the eye socket and traveling down to the nose, will affect only the cheek and nose. When they contract, they puff the cheek and lift the wings of the nose. The inner fibers—the nasal branch—attach much higher up the face. When they contract, they also activate a reflexive contraction of some of the muscles around the eye. With the extra muscle action, the contraction lifts the nose wings higher, puffs more cheek, and triggers the lowering of the eyebrows and squinting of the eyes.

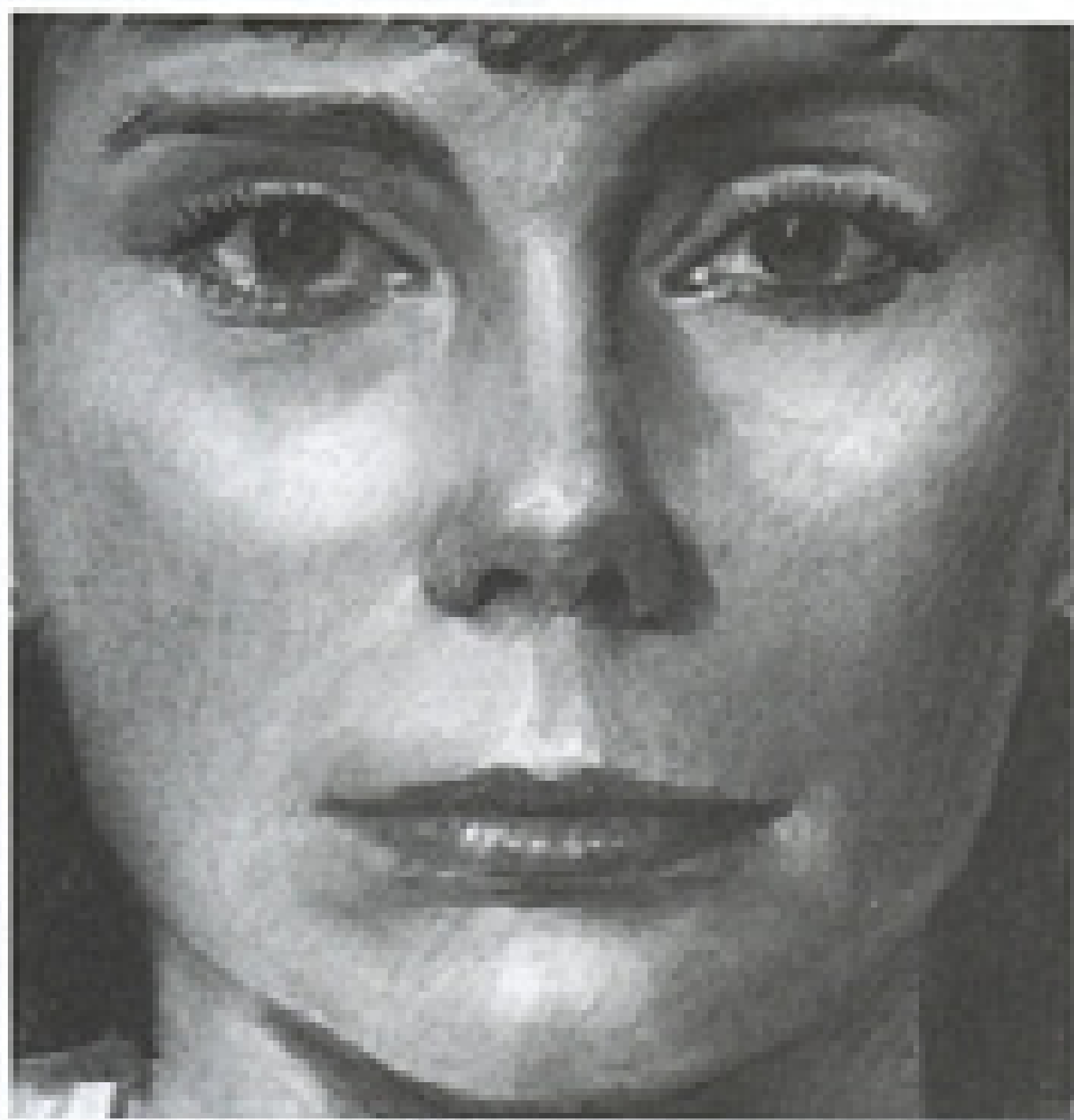
Here is something that the two actions share in common: either will create the same signature wrinkle of the sneer, which is a sharp deepening of the upper nasolabial fold. This wrinkle is so distinctive that if it is depicted as being present, it can make the mouth seem to be sneering even if other clues are missing or ambiguous. It, and the shape of the upper lip, are the two key elements that are always present in the sneer.

Artists struggling to take the sneer out of a mouth (or, I suppose, those few who might be struggling to put one in), then, must beware of the hooked fold around the nose.

The Special Case of the Zygomatic Minor

The third branch of the levator labii group, zygomatic minor, is a special case. Its role in the face as a whole is poorly understood. It's one of the few muscles involved in emotional expression over which we seem to have no conscious control. For that reason I couldn't include a drawing of it in action, by itself. Its basic role in the face seems to be to contribute to the face of sadness; as such, it's sort of the flipside of the zygomatic major. It squares the upper lip without the sneering look, because the nose lift and cheek crease are missing.

ZYGOMATIC MINOR: THIRD BRANCH OF SNEERING MUSCLE



The action of the zygomatic minor is involuntary; it appears only when we're sad, not otherwise (the other two branches of the sneering muscle are under our conscious control). When it contracts, pulling from **B**, it creates its own signature wrinkle, the little "floating crease" in the middle of the cheek (**A**). This crease marks the insertion of the muscle into the skin. The zygomatic minor also squares off the lip (which is also stretched by the risorius and pushed up by the mentalis here) and bunches up the cheek. But its overall effect is more subtle, and major elements of the sneer—the signature deep fold along the nose, the lifting up of the wings—are missing.

UPWARD PULLER II: THE SMILING MUSCLE

The smile comes after the sneer because both are accomplished by muscle pulls from above: but what a difference a few inches make! If the pull of the main branches of the sneering muscle is seen as coming from the north, the pull of the smile arrives from the northwest. Its muscular attachment is about two inches further to the side of the face. The tiny zygomatic minor is an even closer companion; along the cheekbone, perhaps half an inch separates the face of pain and pleasure.

The smile is accomplished by the contraction of just one muscle, the zygomatic major. In the final part of this book, the appearances of happiness and pleasure are discussed as they affect the entire face (and involve other muscles): in this section we just focus on what happens to the mouth and its immediate surroundings when the zygomatic major contracts. Obviously, the better you understand the nature of the muscle and its effects, the more convincingly you can draw a smile.

The Muscle Described

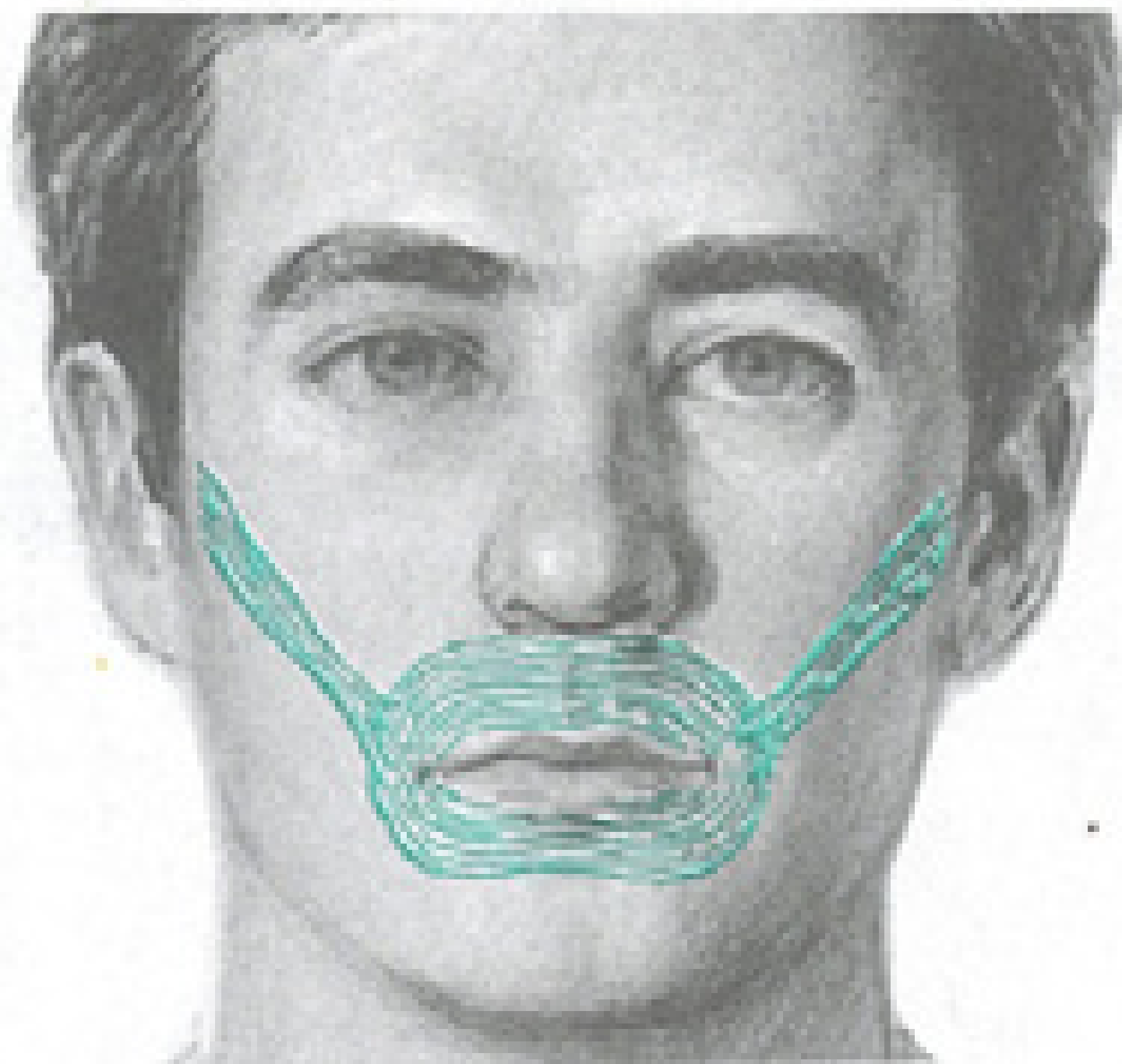
The zygomatic major is thicker than many of the other muscles of expression. It would be logical to assume that it is thickest on those of us who smile the most (as any muscle grows with repeated use), but I have never heard that particular argument proven. A broad smile moves a lot of face around, and the stout quality of the muscle is what is required even for just the occasional grin, smirk, or giggle.

It is important to fix in your mind the exact point of attachment of the zygomatic major on the cheekbone. It is actually attached on the side of the face, not on the front. From its cheekbone root, the zygomatic major travels diagonally downward to the outer corner of the mouth—its movable end. This diagonal path is the direction the smile follows as it widens.

The outer corner of the mouth is a popular location for muscle attachments. In the same spot, the downward puller (triangularis), the outward puller (risorius), and the upward puller (zygomatic major), all are inserted,

ZYGOMATIC MAJOR: THE SMILING MUSCLE

For such a common expression, the smile is surprisingly difficult to draw. There are two main difficulties: getting a feeling for the turning and stretching of the lips and pinning down the reshaping and creating of the cheeks. A good starting place is the muscle, where it attaches, and how it pulls. Think sculpturally with the smile; the more volume, the better. Think tension—those lips are stretched.



The zygomatic major attaches on the side of the head, not the front. It's fixed to the zygomatic arch, almost halfway back to the ear (A). You can feel the spot with your finger when you smile. The thick muscle body (one of the strongest on the face) attaches to the mouth at the corner, right where the little end-of-the-mouth crease is located. It ties directly into the great circular muscle of the lips, the orbicularis oris (B).

just underneath the shallow dent that marks the end of the mouth.

For the zygomatic major, its corner attachment marks the last point at which it is near the surface. As it rises upward diagonally toward the cheekbone, it tunnels steadily deeper beneath the surface of the cheek. Halfway up the cheek—the area of the face with the most subsurface fat—the zygomatic major may be an inch or more from the outer skin. This is an extremely important point to grasp. The smile burrows *into* the face as much, if not more, than it goes *up*. The deep push on cheek forces a lot of the overlying skin and fat outward, more than in any other expression.

The upshot is that it's *work* to smile. More than one person has told me that after a particularly happy event—one woman mentioned her wedding—the zygomatic major ached for days! Not surprising when you look at what it has to do to give us that wonderful grin.

The Smile Described

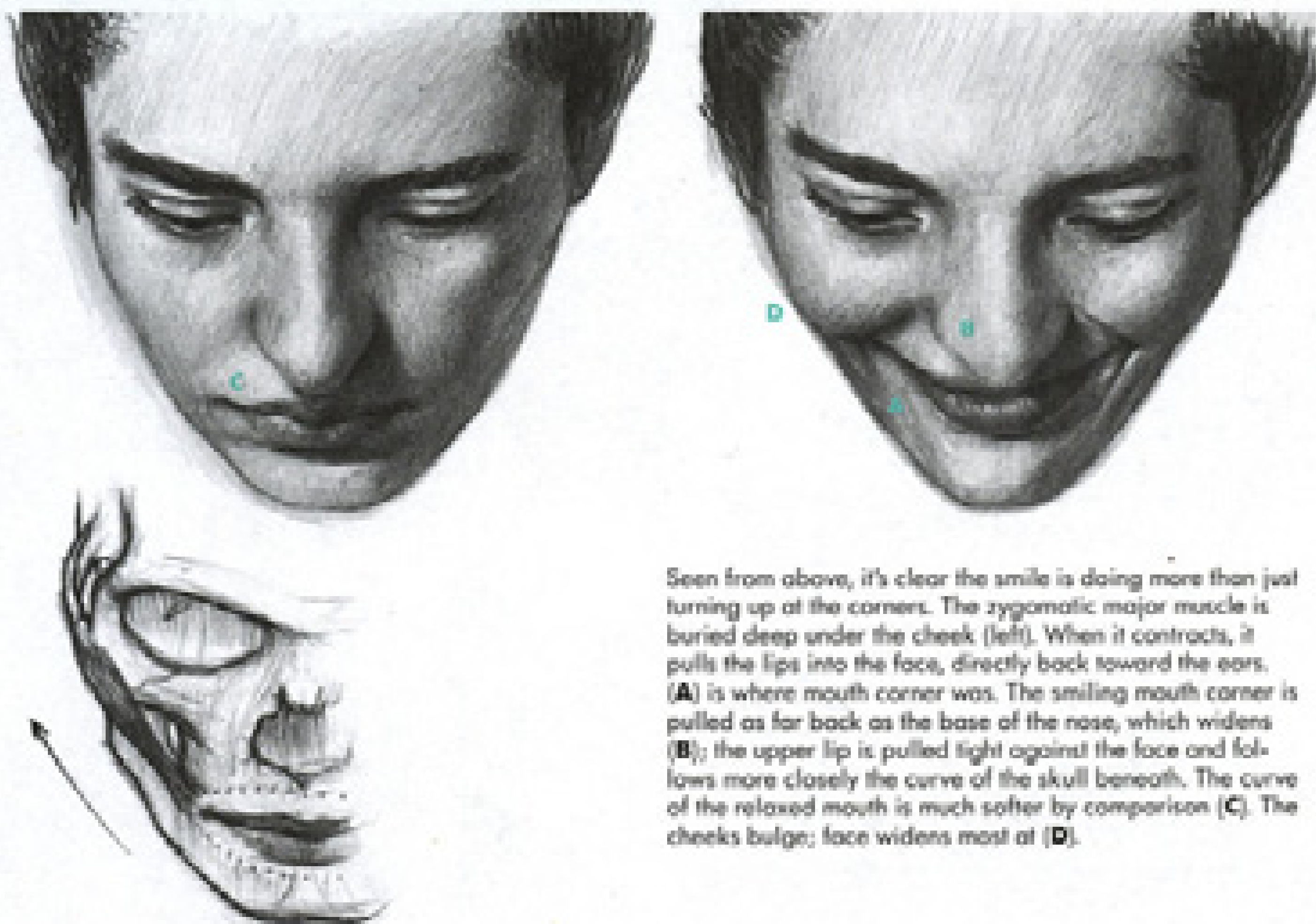
A lot of things happen when we smile. In a broad smile, there isn't a single part of the lower face that isn't shifted around in some manner. The lips, and the surfaces immediately around them are stretched tight around the curves of the skull. The cheeks and the sides of the chin are mounded high, pushed up out of the way. Deep creases appear where surfaces collide, and dents cut through parts of the middle cheek.

Basically, there's a central portion of the smile, including the lips and chin, and there's an outer portion, including the cheeks. The center portion in a broad smile becomes as curved as any feature ever gets, by virtue of being pulled so firmly back toward the ears. The pull presses the lips, the skin right above, and the chin below hard up against sharp curves of teeth, upper jaw, and skeletal chin. The mouth goes from describing a lazy curve to describing a virtual hairpin turn.

The outer portion of the smile becomes a frame for the inner portion. As the inner portion widens and flattens against the skull, the outer portion piles up on itself and lifts further off the skull. It surrounds the inner portion on all sides, in the shape of a diamond, with the top at the nose and the bottom at the chin. Everywhere the inner and outer portions meet, there are either deep creases, or dramatic changes in plane, or both.

You can learn about these things best by feeling them, on your own face. We're so used to looking at smiles that we really don't notice them anymore. But using your fingers, you can get a much better sense of the surface changes as you go from the tight center part to the overhanging mound of the cheeks. Your finger can also sense the tension at the corner of the mouth, where all the force of the pull is concentrated, and the surface is pulled in very deep.

ZYGOMATIC MAJOR: THE SMILING MUSCLE



Seen from above, it's clear the smile is doing more than just turning up at the corners. The zygomatic major muscle is buried deep under the cheek (left). When it contracts, it pulls the lips into the face, directly back toward the ears. (A) is where mouth corner was. The smiling mouth corner is pulled as far back as the base of the nose, which widens (B); the upper lip is pulled tight against the face and follows more closely the curve of the skull beneath. The curve of the relaxed mouth is much softer by comparison (C). The cheeks bulge; face widens most at (D).



A. Cheeks widest just above level of base of nose.

B. Skin tightly stretched between cheek and chin. Line is concave; almost no concave lines appear in relaxed face.

C. Lips are pulled upward toward nose.

D. Chin appears longer and broader. Smile stretches skin over chin, smoothing it. Lower lip has lifted toward nose, exposing more chin.

E. Attachment of muscle.

F. Cheek piled highest off face here.

G. Dimples are located on side of face; usually, dimples are deeper on one side than the other.

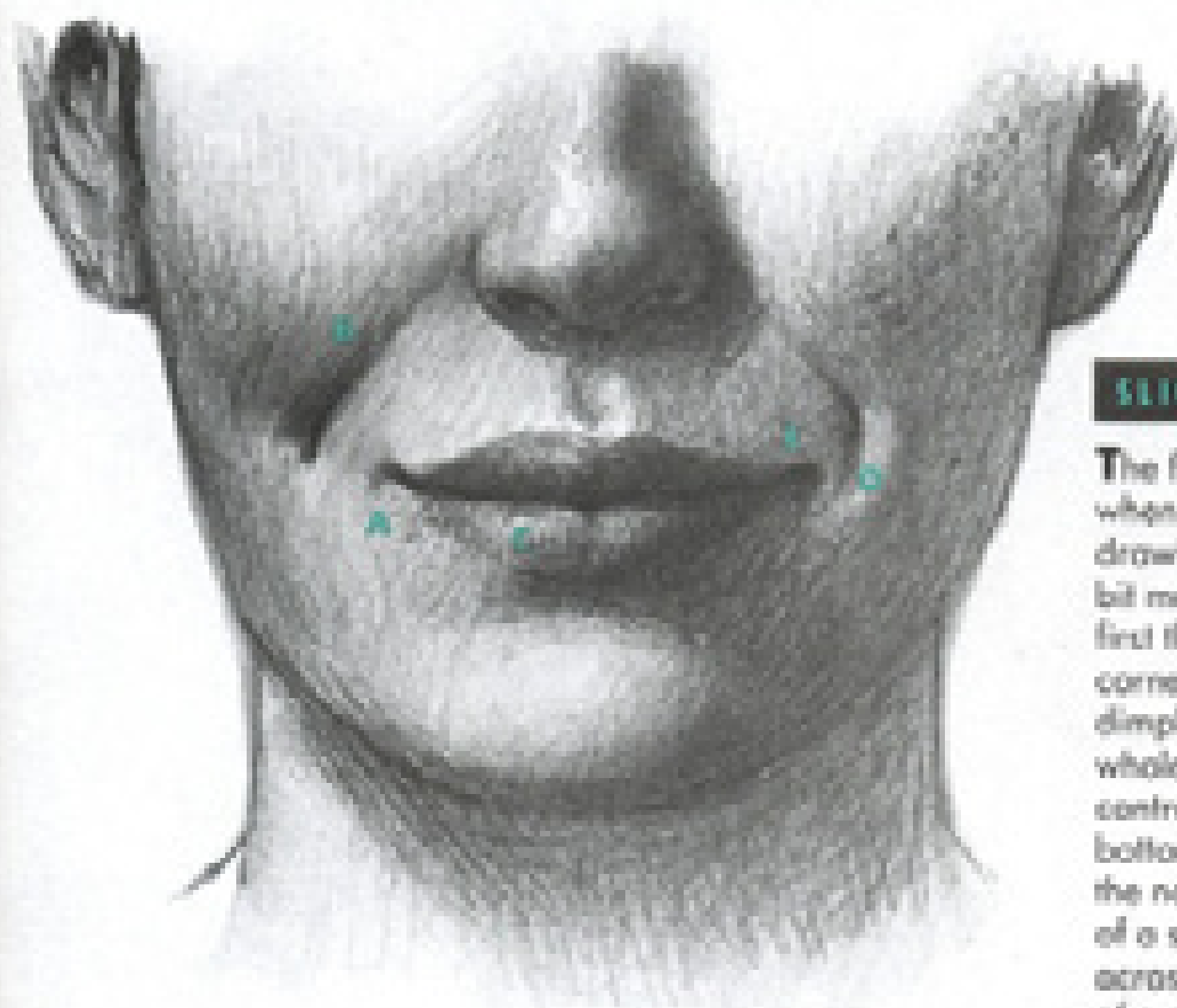
H. LBL almost completely unkinked; compare with LBL of relaxed mouth.

It may take more muscles to frown than to smile, but smiling is more work. When we smile, the zygomatic major attempts to slide the entire orbicularis oris (the muscle that includes and circles the lips) back toward the ear, underneath the cheeks. Where cheeks and orbicularis oris meet, a deep crease, the signature wrinkle of the smile, develops.



When we smile, the lips are stretched against the teeth, whose shape shows through. This shape is similar to the block form (right)—flattened in the front and turned sharply to the side. Just as a rubber band stretched against that form loses any kinks or sags it may have had, the lips become more uniform in the smile. Compare the LBL in a relaxed face to the smile; the kinks are stretched out.

ZYGOMATIC MAJOR: MORE VIEWS OF ITS ACTION

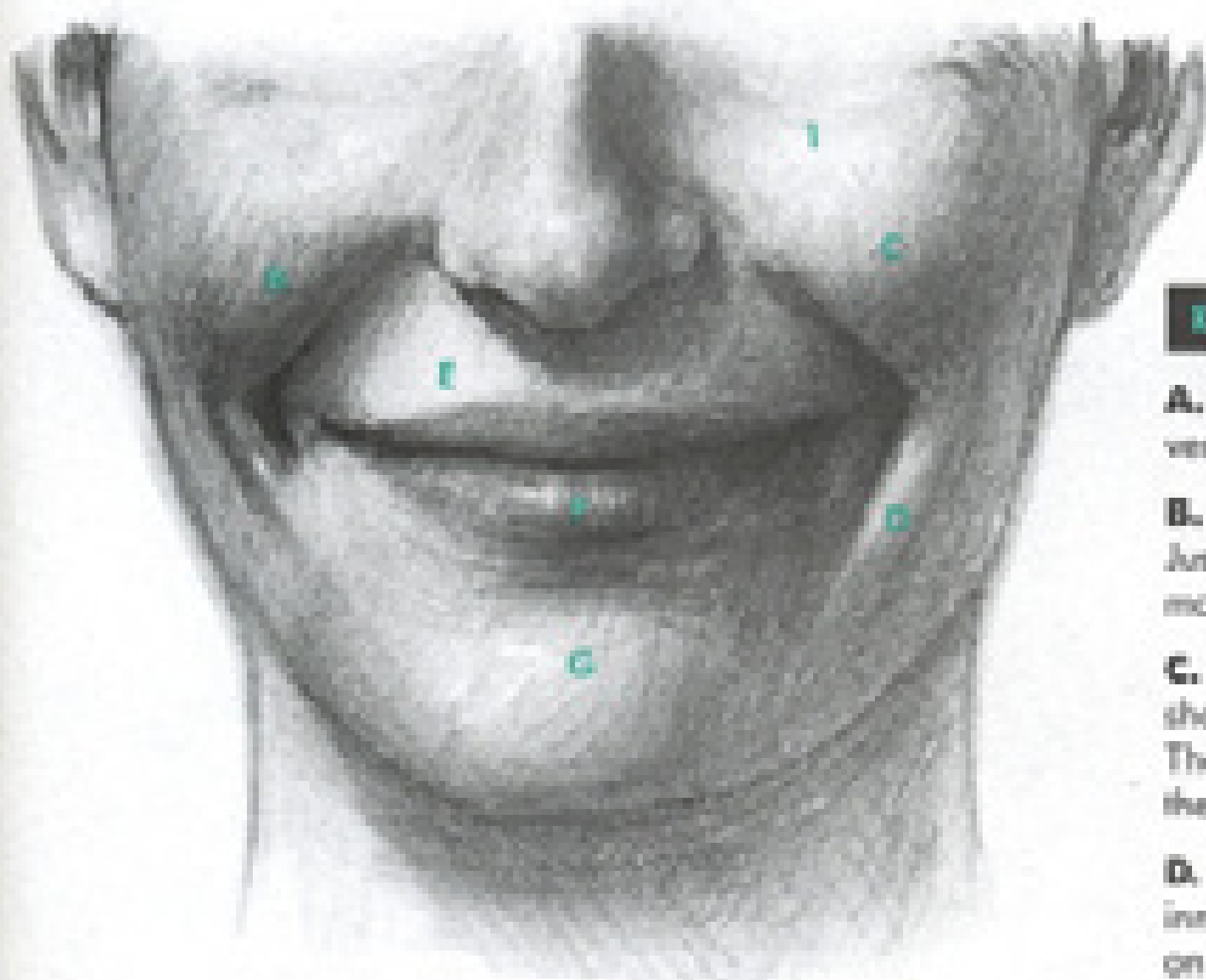


NEUTRAL MOUTH ↑



SLIGHT SMILE

The first stage of a smile is the most elusive. We notice when the zygomatic major so much as twitches; in the drawing of a weak contraction (top left) it's contracting a bit more than the minimum. The corner of the mouth is the first thing to change, rising above its neutral point (A). The corner does not move by much before the cheeks swell and dimples appear; it doesn't change by much before the whole LBL begins to stretch. The broad smile of a strong contraction (below) is not so subtle. Changes start at the bottom of the cheeks (B); on some faces the deepening of the nasolabial fold would not be as deep in the early stage of a smile. Even in a slight smile (C), shallow wrinkles across the lower lip are smoothed. The cord along the side of a smile stretches down to the chin like a rope caught under the face. It often catches the light (D). The pull of the zygomatic is stronger on this side (E). Note how far past the rest of the lips the corner of the mouth has moved.



KEY ELEMENTS OF THE BROAD SMILE

- A.** The line between the lips has a taut look like a V with a very open angle.
- B.** The nasolabial fold intensifies and is pulled to the side. Just before it ends, it hooks downward, bracketing the mouth corner.
- C.** The cheek balls up. Steepest edges (watch for sharp shadow breaks) are here. The soft edge is next to the nose. The highlight is crisp on the upside of the cheek, showing the stretching of skin (1).
- D.** Angled cords hang from bottom of cheek mound. Deep inner edge may connect with nasolabial fold; dimple lies on the outside edge.
- E.** Upper lip becomes a simple, curved plane. Filtrum disappears.
- F.** Lips are thinned and smooth-looking. Sharp highlight on stretched lower lip. The mouth is now wider; the relaxed mouth is directly below middle of eye; smiling mouth is directly below outer edge of iris.
- G.** Chin seems longer because of moving up of lips. Under-the-lip crease disappears.



DOWNWARD PULLER I: TRIANGULARIS

The *triangularis*, when contracted, creates a mouth that is an inverted smile. Everyone knows that if you take the curve of the mouth in the “have a nice day” face and turn it upside down, you get a frown, and the *triangularis* is one of the muscles responsible for creating that change. Charles Darwin called it the “muscle of grief,” but that’s giving it too much credit; it’s really the *triangularis* plus the *mentalis* that creates the pout, and the *mentalis* often does it on its own.

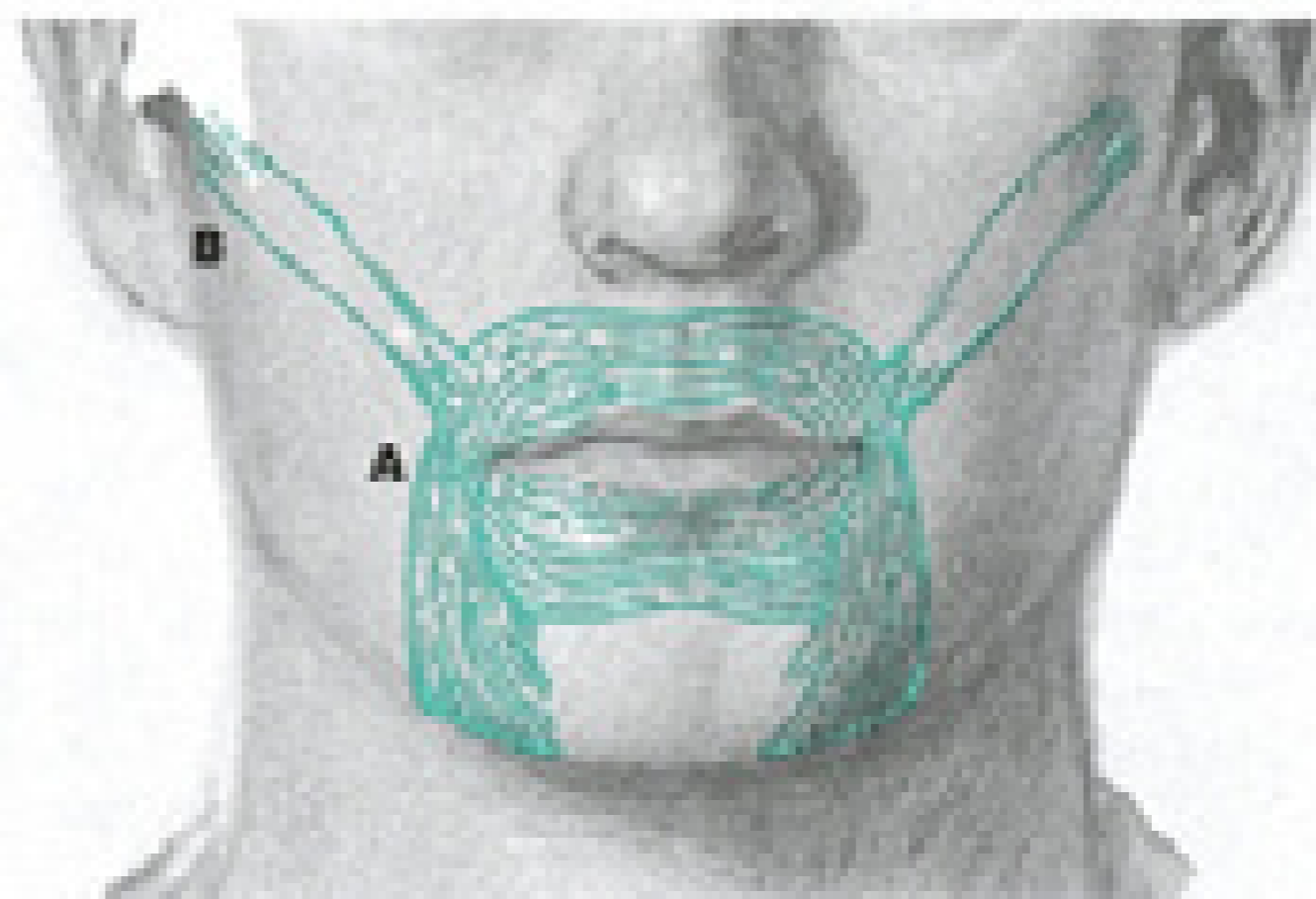
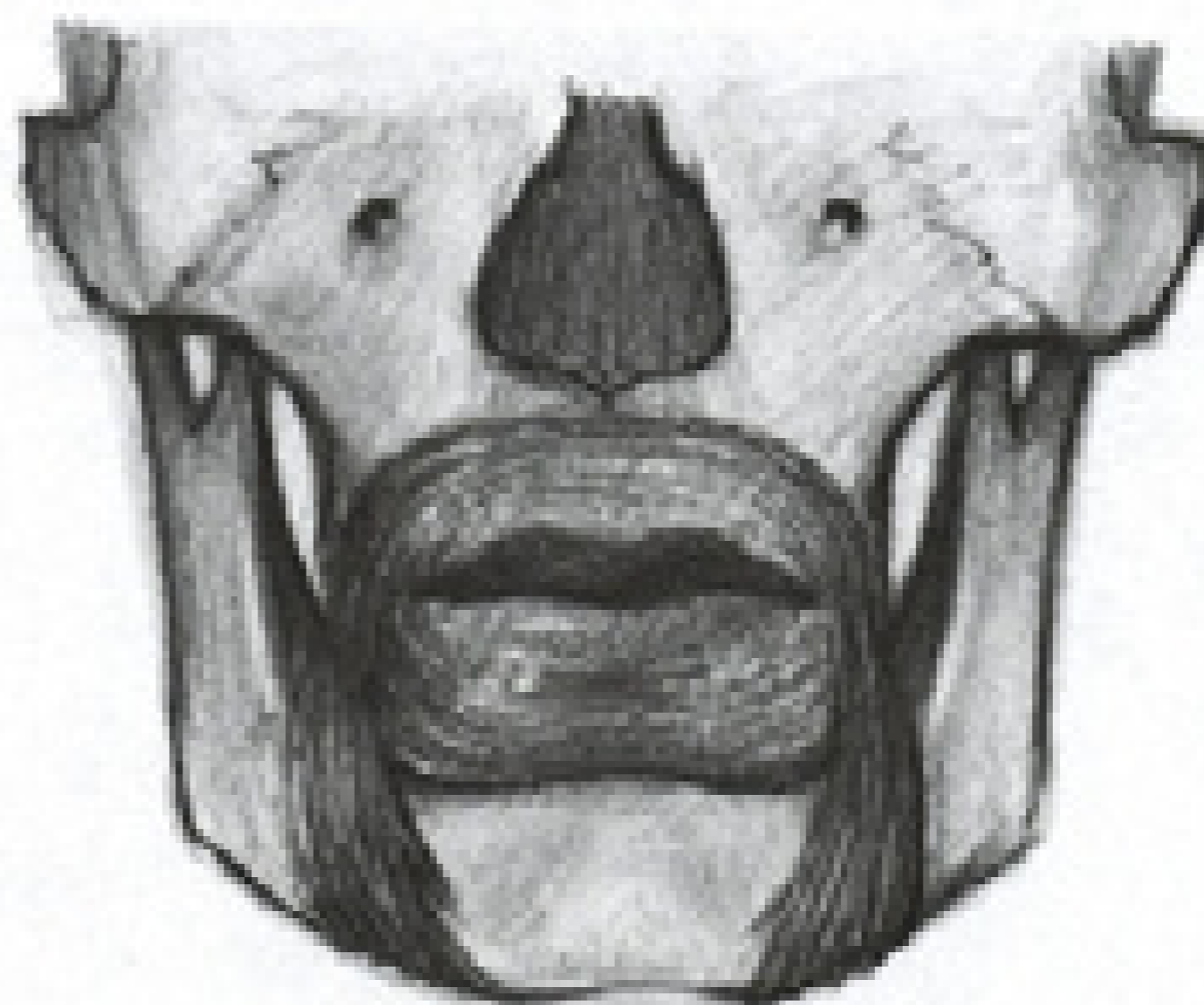
The *triangularis*, unlike the mouth muscles described so far, seems to act only on the closed mouth. And when it does contract, it’s almost always in the company of the *mentalis*.

The *triangularis* (also called the mouth angle depressor) has its fixed end embedded in the bone of the chin, somewhat to the side of the center. From there, it rises diagonally to the corner of the mouth, where it attaches in virtually the same place as the *zygomatic major*, just beyond the end of the LBL. When it contracts, it draws the mouth corner and the LBL sharply downward, often extending the LBL past the lips.

The *triangularis* was one of the muscles I had in mind when I mentioned the fact that some people look like they’re scowling even when they’re not. In older faces, the creases that extend the mouth corner can look a lot like the way the mouth looks when *triangularis* stretches it. The differences are very subtle and turn on distinguishing between a crease (old person) and a gap (stretched LBL). From life, it’s relatively easy; from photos, it can take work. Look also for the bulges that show that the muscle is pulling, not present in the relaxed older face.

TRIANGULARIS: THE OPPOSITE OF A SMILE

The *triangularis* rarely pulls the mouth corner down by itself. It normally appears in the company of the *mentalis*, as part of the pout or the facial shrug. Because it attaches to the mouth corner at the same point as the *zygomatic major*, it’s also the muscle we use to keep the corner down when we’re trying not to smile. The *triangularis* fits around the chin like chinstraps. Its fixed end is sewn into the lower edge of the jaw on either side of the chin. Its free end is attached to the mouth-circling muscle (*orbicularis oris*) at the same point (A) where the smiling muscle, *zygomatic major* (B), attaches.

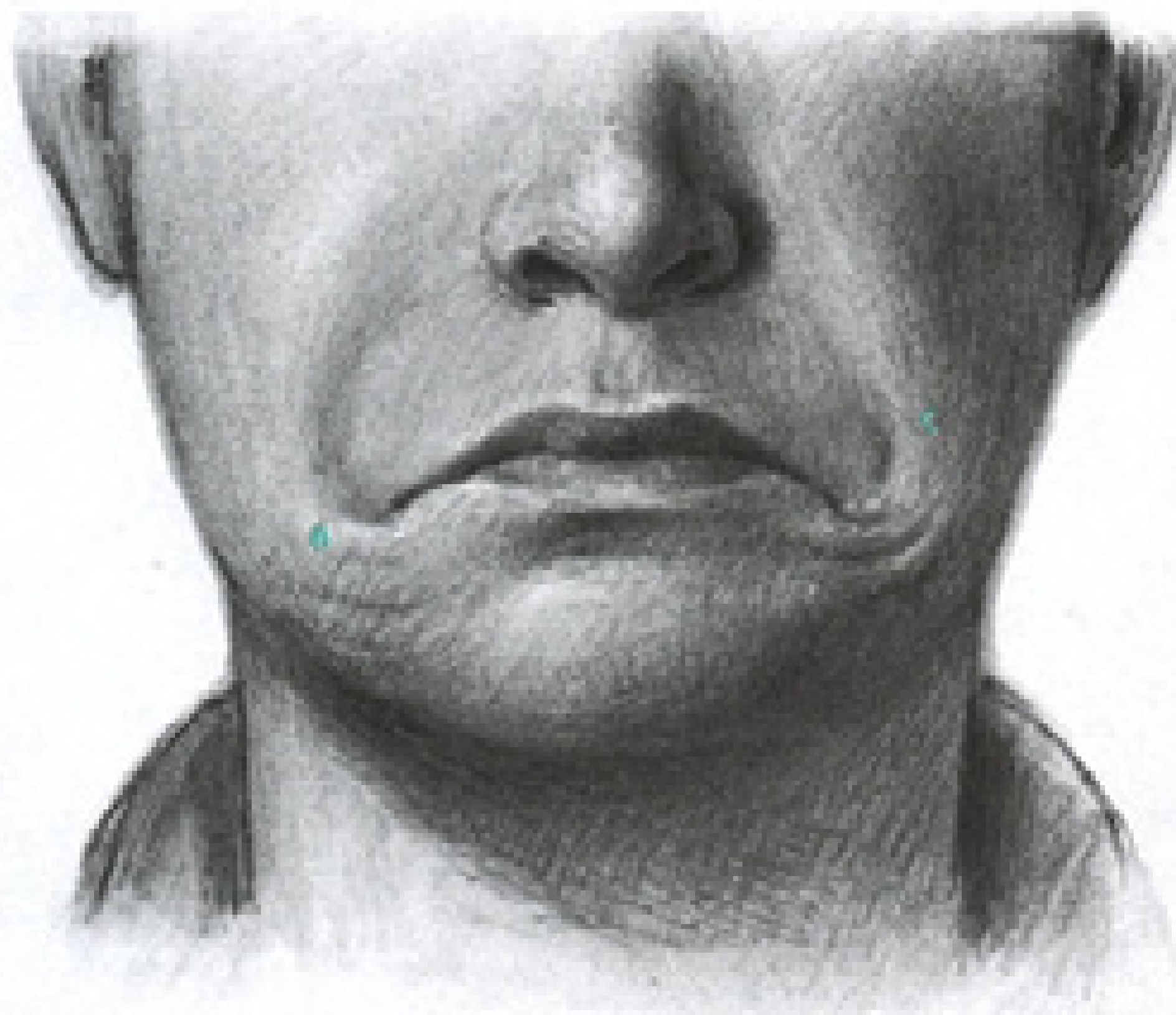


The *triangularis* is one of the two muscles that makes the mouth frown—the other is *mentalis*.

TRIANGULARIS: THE OPPOSITE OF A SMILE



NEUTRAL MOUTH



LBL has nearly doubled in length, extending well past the end of the red portion, but the lips are only slightly changed, stretching a bit at the end. LBL has pivoted down from (A). Row of curved bulges, like waves approaching a shoreline, appear below mouth corner (B). These are the signature wrinkles of the triangularis. The lowermost portion of the nasolabial fold deepens. The skin outside the fold is bulged out and pulled down, looking like a broad, rounded hook on the rim of the face (C).



Is this mouth active or relaxed? Creases are very similar to (B), but corner ends at (D) and is not pulled down. Key is difference between crease and gap (LBL).

DOWNWARD PULLER II: MENTALIS

The mentalis is the other half of the pout. It has a much larger role to play in the face than triangularis. It's another one of those muscles, like corrugator or orbicularis oris, that we use in our everyday expressive gestures. It's part of a great number of expressions, particularly those where there is some effort at restraint involved. This includes partly restrained anger and sadness and the stifled smile.

There's certainly no muscle on the face you can demonstrate to yourself easier: "shrug" the chin, pushing up the center of your lips, and you've just performed the basic action of mentalis. There's also no muscle on the face with a more distinctive signature wrinkle—look at what the shrug does to the chin. A little raised island with puckered skin is the unmistakable mark that the mentalis is active—nothing

any other muscle does is at all similar. Incidentally, the facial shrug you've just performed is one of the most frequent ways we use the mentalis, a sort of lower-face version of shrugging the shoulders.

Action

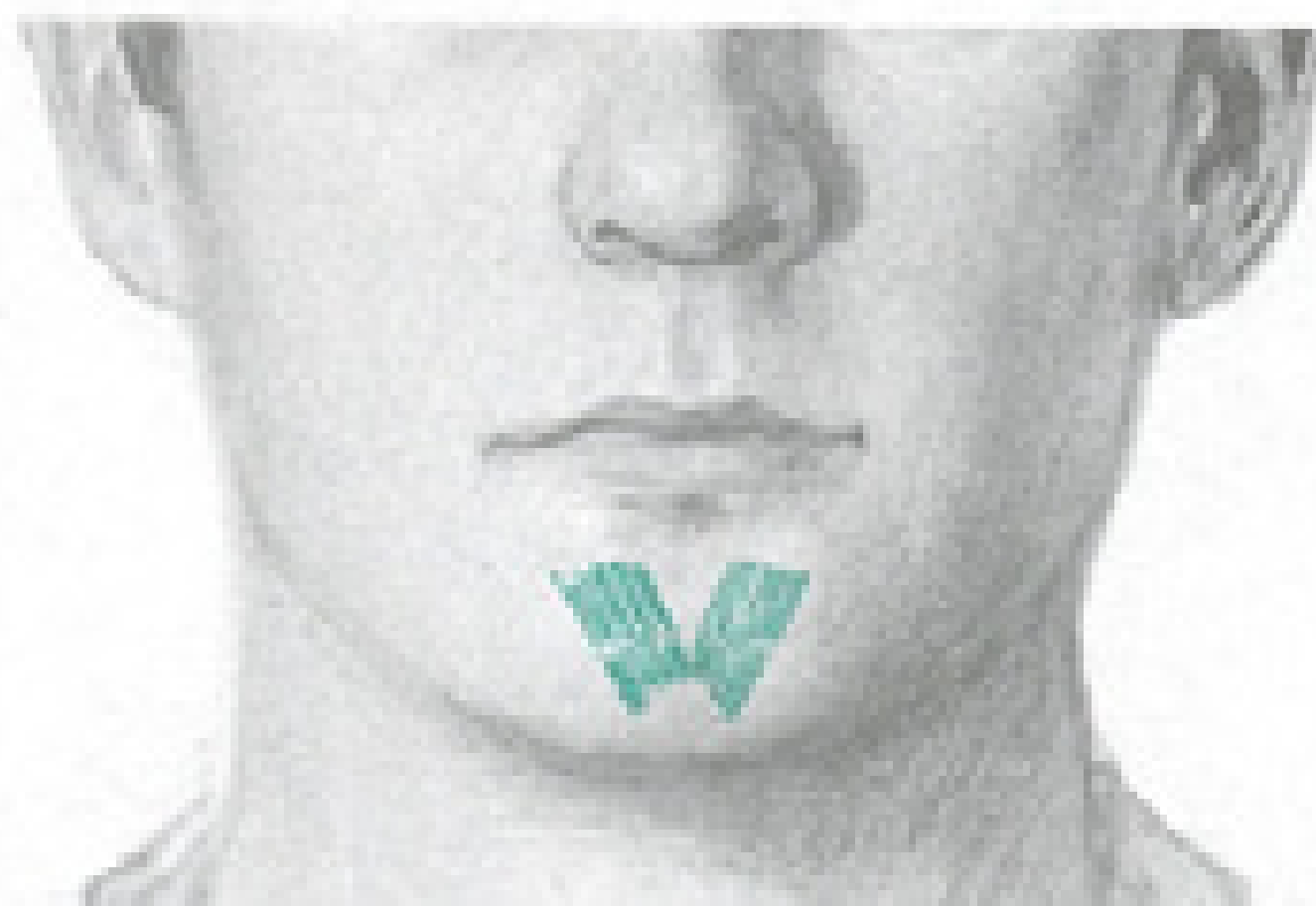
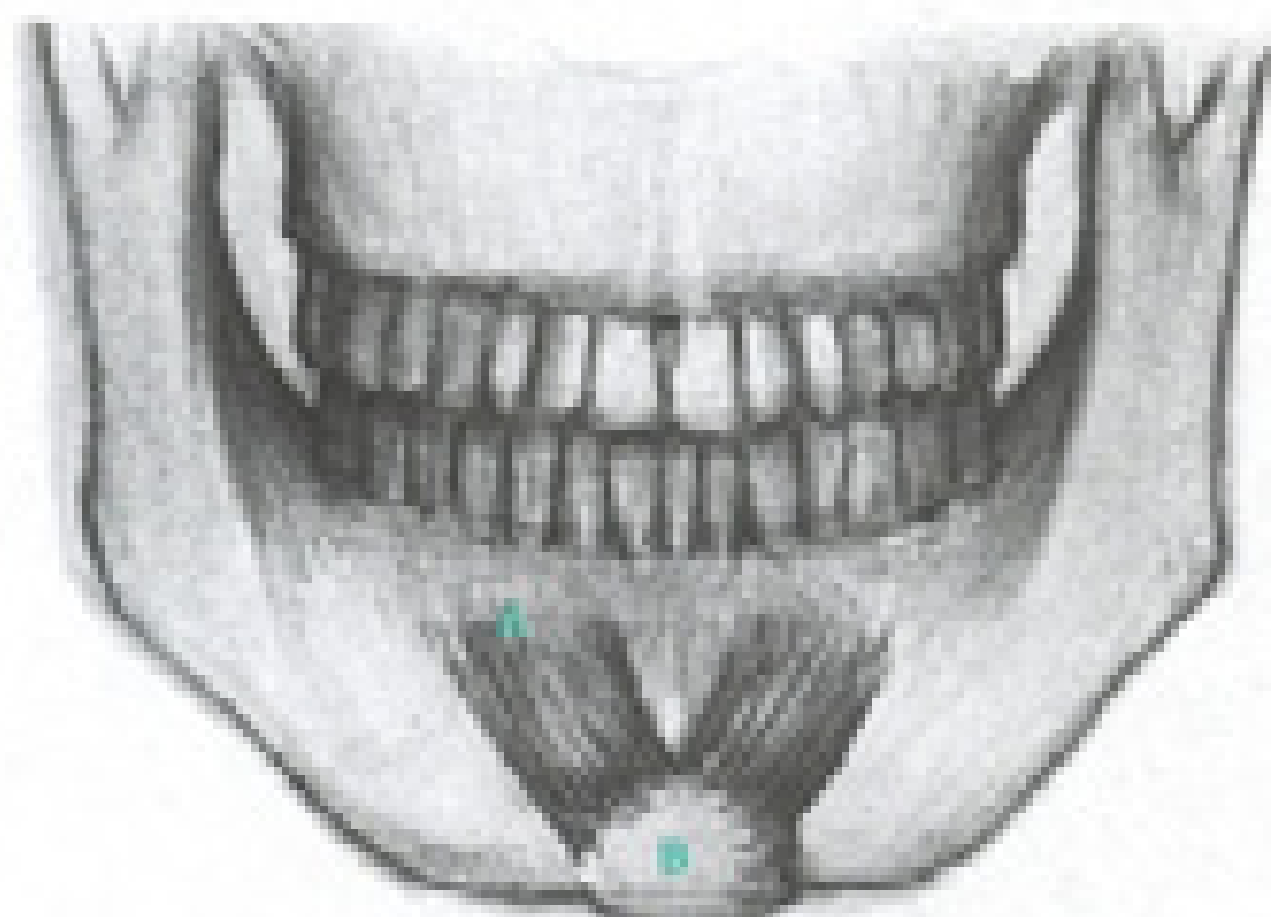
Though I've placed the mentalis in the "downward puller" category, it is a peculiar sort of downward puller. It creates the downcurved mouth indirectly, by pushing the center of the lips up. The lips are pushed up because the skin over the chin, which is where the mentalis inserts, is on its way toward the base of the teeth, which is where the muscle attaches. When the mentalis contracts, the ball of the chin tries to move up and under the base of the lower lip.

If the push is strong enough, then the lower lip thrusts further out than the upper in a pout. The feeling of the lip being the top of a platform is thus

greatly intensified, with a sharper shadow underneath and more sense of overhang. Along with the changes in the chin, this is a particular detail that helps signal that the mentalis has acted. In fact, it can be more important, as it is possible to inadvertently suggest a pout when you use shadows under the lip that are too sharply defined.

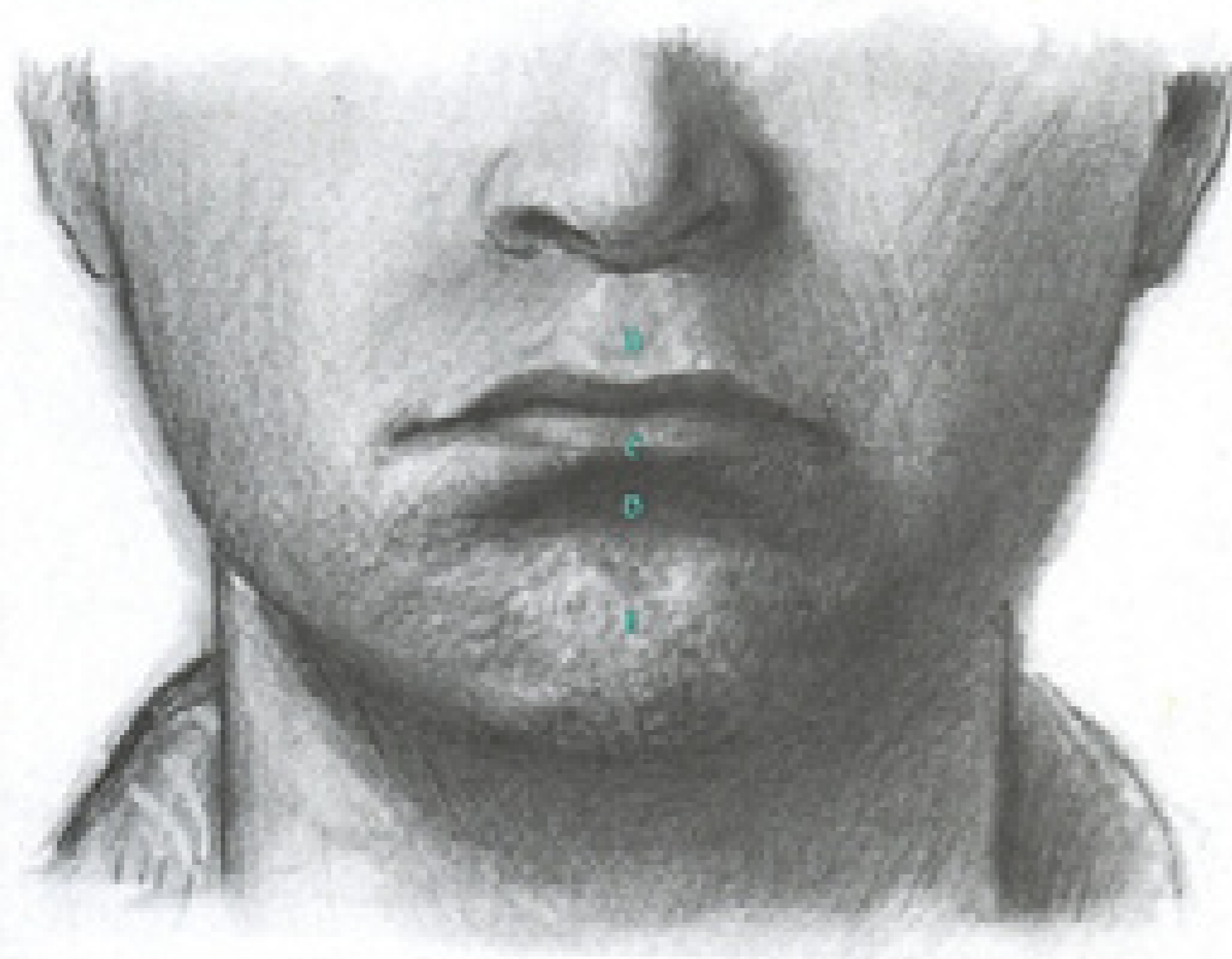
The teamwork of mentalis and triangularis is what we see most often on the face. The action of the two muscles is perfectly complementary. Mentalis is the specialist in pushing the lips up in the middle, and triangularis in pulling the lips down at their ends. The muscles' joint action combines these two motions to push the mouth further up in the middle and further down at the ends, while preserving the signature wrinkles of the individual muscles—namely, the raised ball on the chin and curved wrinkling underneath the mouth corner.

MENTALIS: THE POUTING MUSCLE



The mentalis lifts the skin over the chin. This direct action is not expressive, but the indirect action, the pushing together of the lips, is. We employ the mentalis to squash and pout our lips whenever we're sad and often when we're nervous or angry. It plays a role in the stifled smile and the facial shrug. Here its movement is isolated. In expression, it always acts in concert with other muscles. The signature wrinkle (the puckered chin) is always present, no matter what the expression. The mentalis on the skull does not attach to the mouth. It originates (A) in the depression below the teeth. From there the fibers move down and toward the surface, inserting themselves into the skin on the ball of the chin (B). In the pout, the pockmarks on the surface are actually the places where the fibers are attaching to, and pulling up, the skin.

MENTALIS: THE POUTING MUSCLE



In the basic action of the mentalis, the skin on the chin, pulled toward the base of the teeth, is flattened. The lips lift and project out like a shelf (A). The strongest lift is in the center, but the entire lip is thinned (B). LBL is straightened; a sharp, bright edge appears on lower lip (C). Corners appear pulled down because the center is lifted. A sharp shadow appears under lips—the hollow is more drastic than on a relaxed mouth (D). Raised, shield-shaped “island,” the signature wrinkle, always appears on the chin, with packmarked texture (E).



THE FACIAL SHRUG

Triangularis and Mentalis contracting together result in the facial shrug—the facial equivalent to a shoulder shrug. In its more subtle versions it's called the pout. The flattened lips and puckered-up chin of mentalis are added to the down corners and hook-like furrows of triangularis. Lower lip dominates upper and sticks out further and appears larger.

THE LIP COMPRESSOR

No muscle on the face gets more of a workout than the muscle of the lips, orbicularis oris. The other muscles we've talked about pull on the mouth at its edges; orbicularis oris is what's inside the lips themselves. When we talk, it fixtures the lip edges to form the sounds of speech. It's made up of several specialized layers that can shape the mouth just so. It's also one of the principal muscles we use when we eat. But our chief reason for including it here is the way it acts to compress the lips in expressions such as anger and grief.

Most of the actions of the orbicularis oris act to tighten the lips in some fashion. In this, it's similar to the circu-

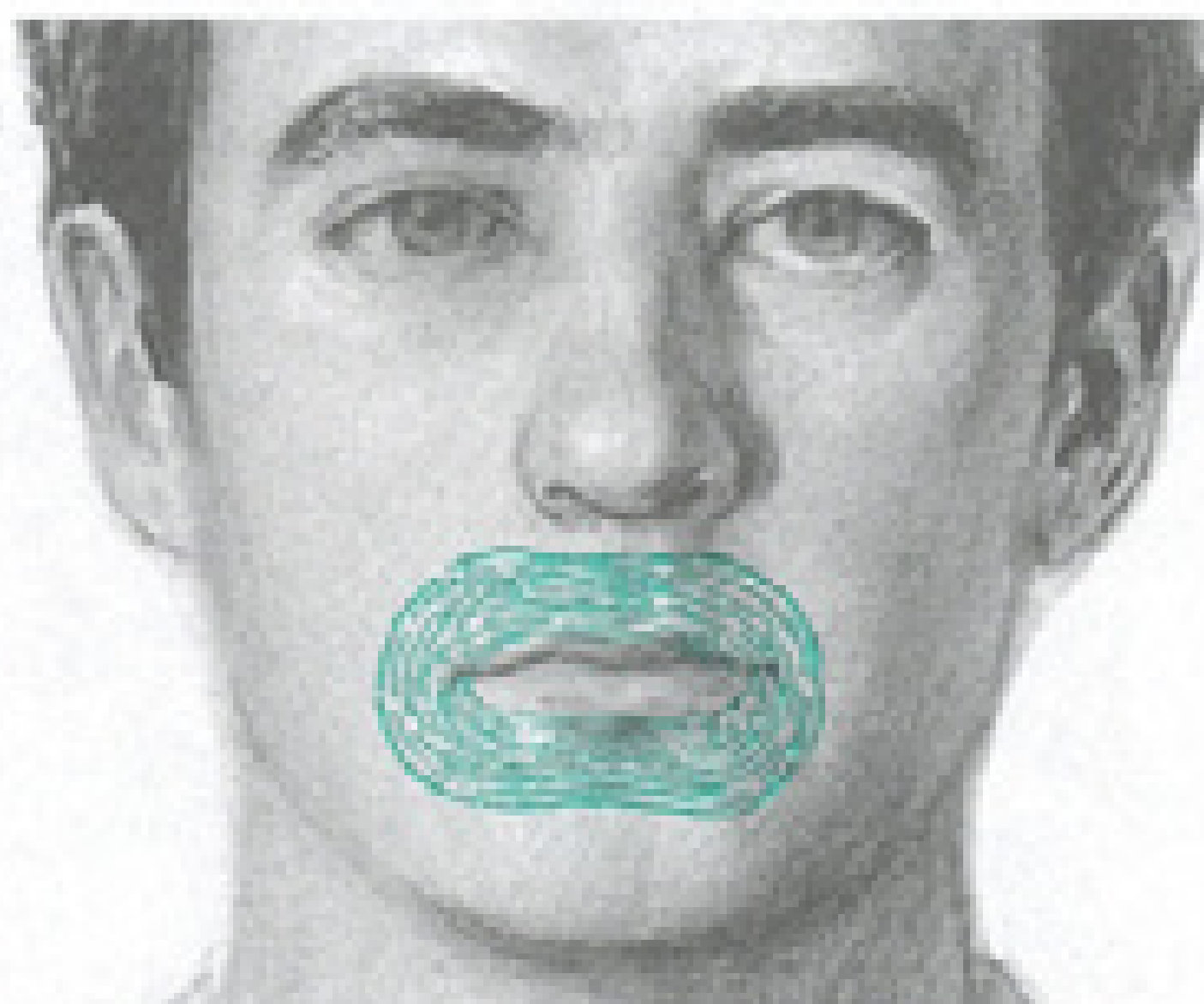
lar muscle of the eye, orbicularis oculi, which creates a squint when contracted. In the case of the mouth, the equivalent of the squint is the tight-lipped look, where the lips themselves are thinned to nearly a single line.

The orbicularis oris runs, just under the skin, in a great oval around the mouth. It's precisely underneath where a juice glass rests when we drink. The muscle stretches from the base of the nose, to the corners of the mouth, to the little crease on the chin under the lower lip. With its own thickness added to that of the skull beneath, it can at times be sensed through the skin, in form something like the bell of a trumpet, with its small end forward, centered on the mouth.

The attachments of orbicularis oris

to the head are unlike those of any other muscle. It's not so much attached as *suspended*. You can find its attachment on your own face if you pinch the skin of your cheek just beyond the mouth corner, with one finger inside and one outside. The thickened spot you feel is a sort of muscular knot, where a half dozen or so muscles converge on the outer end of the orbicularis oris. By braiding together with the mouth muscle, they provide a flexible anchorage for it to pull against. The knot also helps define the appearance of the corner. In the closed mouth we see the knot as a crescent-shaped mound just beyond the end of the line between the lips. The mound adds a very subtle extra curve on the far outline in three-quarter views.

ORBICULARIS ORIS: THE LIP TIGHTENER



Attachments of orbicularis oris. The orbicularis oris is the most complex muscle on the face. Its fibers circle the mouth and penetrate the lips in overlapping layers. It has no fixed bony origin but is held in place by the muscles of the mouth corners (A). With such a free arrangement, it can take on an enormous variety of shapes.



The lips themselves are part of a muscle—the orbicularis oris. Like the muscle that circles the eye, the orbicularis oris tightens in on itself when it contracts, narrowing and compressing the lips. Pursed lips appear in suppressed anger, sadness, and simple nervousness. Open, taut lips appear in loud speaking, singing, and angry shouting. The tight-lipped look involves the disappearance of much of the red margin. When both lips tighten with the mouth closed, there is also a bulging-out around the lips, as though we were trying to hold in a mouthful of air.

A. Relaxed mouth.

B. Entire muscle tensed. Lips curl under themselves and tense. Tension straightens LBL slightly; kinks remain.

C. Vertical across-the-pull wrinkles on upper lip. Filtrum disappears.

D. Thicker parts of lip—entire lower lip, middle of upper—still show. With thinner lips, nothing would show.

E. Length of lips doesn't change, only width.



Action

When we tense and press our lips in sadness or anger, the lips narrow, but the mouth does not shorten. You can see why if you press your lips together and at the same time probe your cheek with a finger. On the side of your face, you'll feel muscles deep underneath the surface tightening as you press in on your lips. The corner of the mouth is being fixed in place by some of the muscles attaching to it, and the result is it stays put while the rest of the mouth shrinks.

The lips narrow by curling in on themselves, not so much disappearing into the mouth as condensing, like a towel being wrung out. The result is two skinny, tightly curved edges, with only a trace of red lip still showing. If you perform the lip press and trace the surface from the base of your nose to the LHL with your finger, you'll feel it curve out and then in again: the reverse of its relaxed curve. There's a feeling of fullness to the surface, as though one

were holding a mouthful of air or water. This same description holds true for the surface below the lips, sometimes even more so. This is an important part of the look of pressed lips and helps distinguish an active, tensed mouth from one that merely happens to have thin lips.

Shading the mouth's surroundings so that they look properly curved is the key to capturing the action of the orbicularis oris. Note also the relative brightness of the lower lip compared to the upper lip; as in many of our facial expressions, when the lips are tightened, the upper edge of the lower lip becomes more of a shelf, catching the light from above. The light on the lips changes very sharply from the shadow on the upper lip to the bridge edge of the lower lip.

Very often when the orbicularis oris tightens to compress the mouth, it's joined by the action of triangularis and mentalis. The three muscles complement each other's actions perfectly,

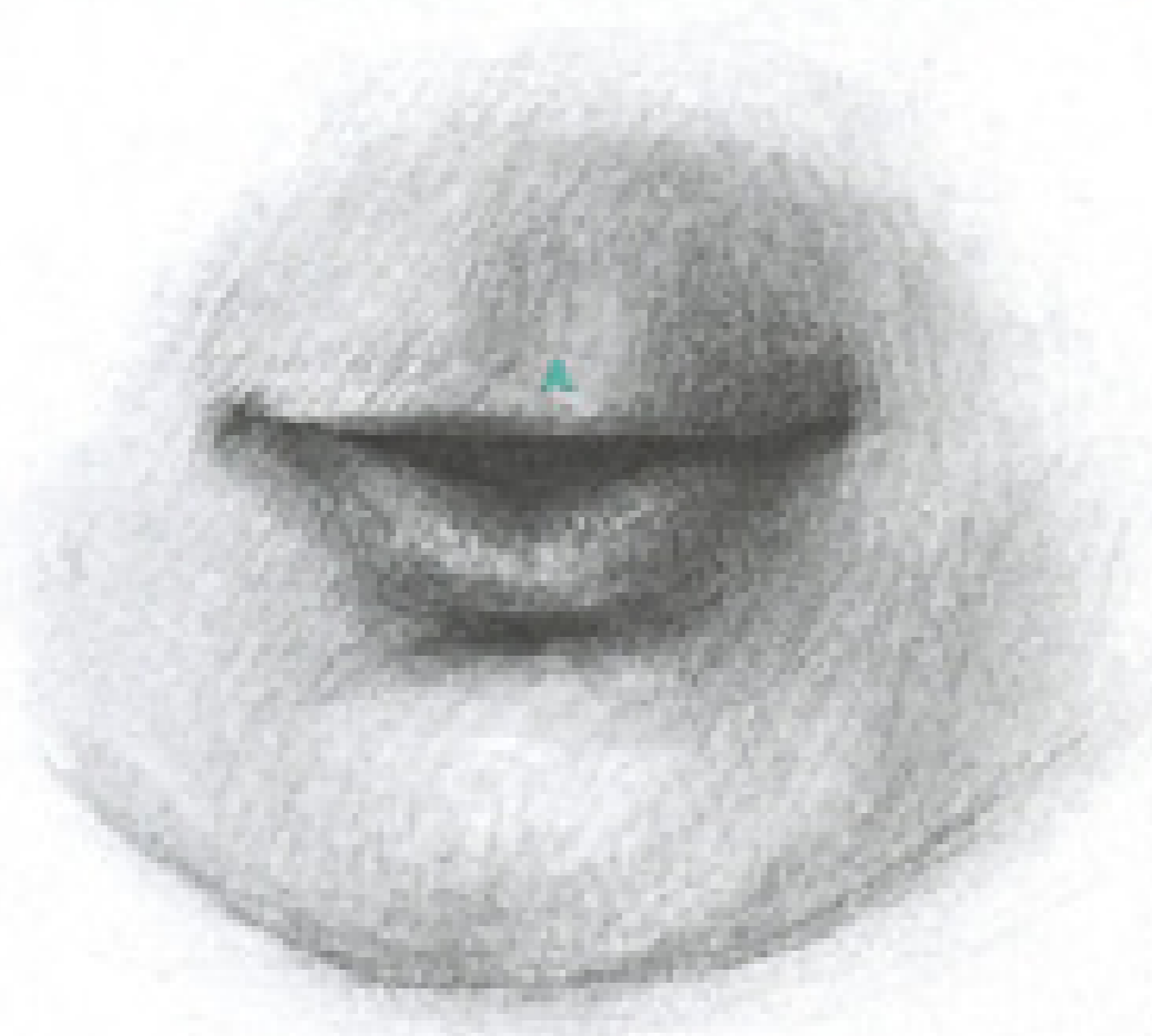
locking the mouth into a vise of muscular pressure. I've dubbed this combination the *three-muscle press*, and it's a key part of the look of suppression in the stifled smile, the stifled sob, and suppressed anger.

Other Functions

There are times when the mouth is open and the orbicularis oris contracts. When that occurs, the effect of its contraction is not to close the mouth, or to press the lips together, but rather to thin the lips by curling them inward and tightening them. This action straightens the inner margin of the lips, particularly the upper lip; it's an important part of the look of the mouth in angry shouting.

The orbicularis oris also has a specialized branch (many anatomists treat it as a separate muscle) that pulls the mouth corners toward each other, as in saying the word *flirt* or *fool*. This *O* shaped mouth is often a part of the expression of surprise.

ORBICULARIS ORIS: THE LIP TIGHTENER

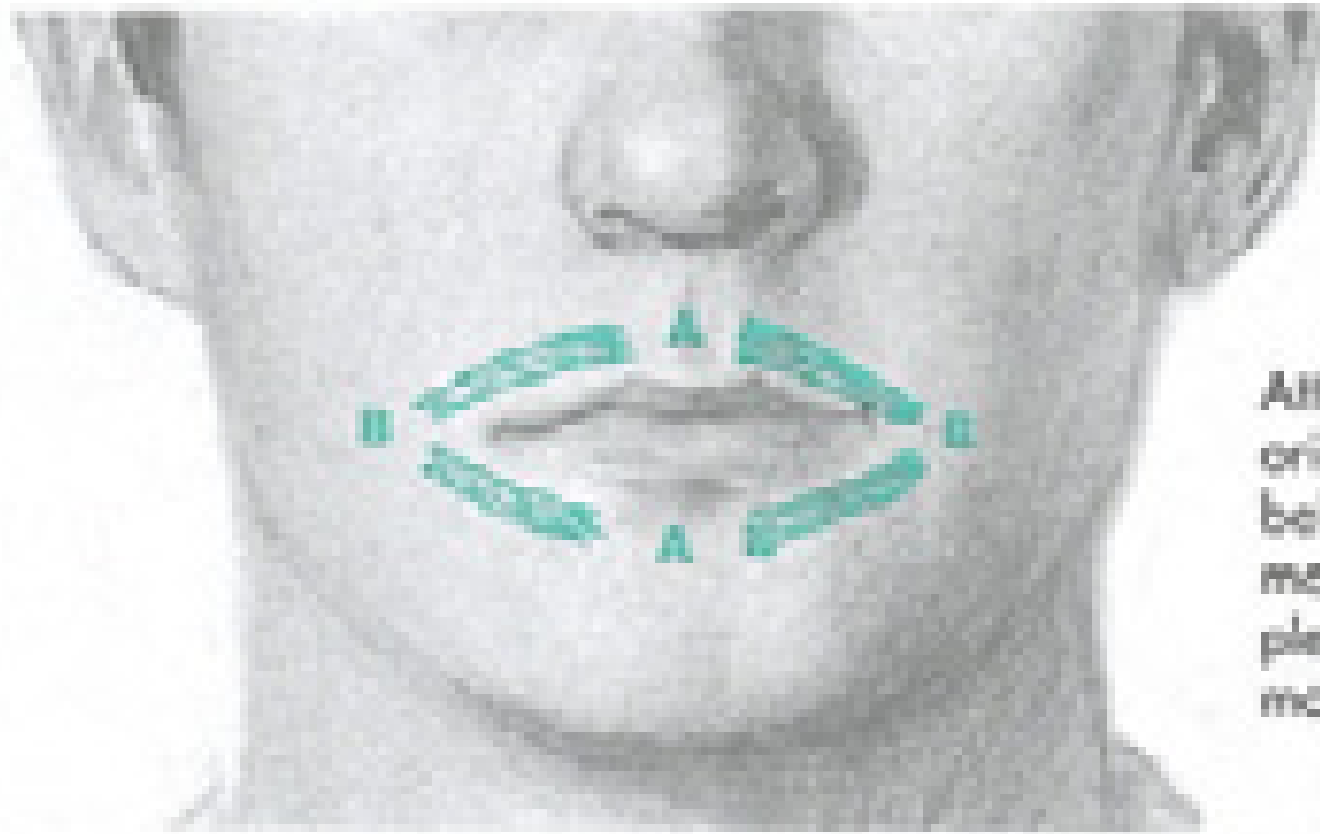


The orbicularis oris may also contract with the mouth open. Either lip may tighten without the other, as in the speaking mouth (**A**), where only the upper lip is tensed.



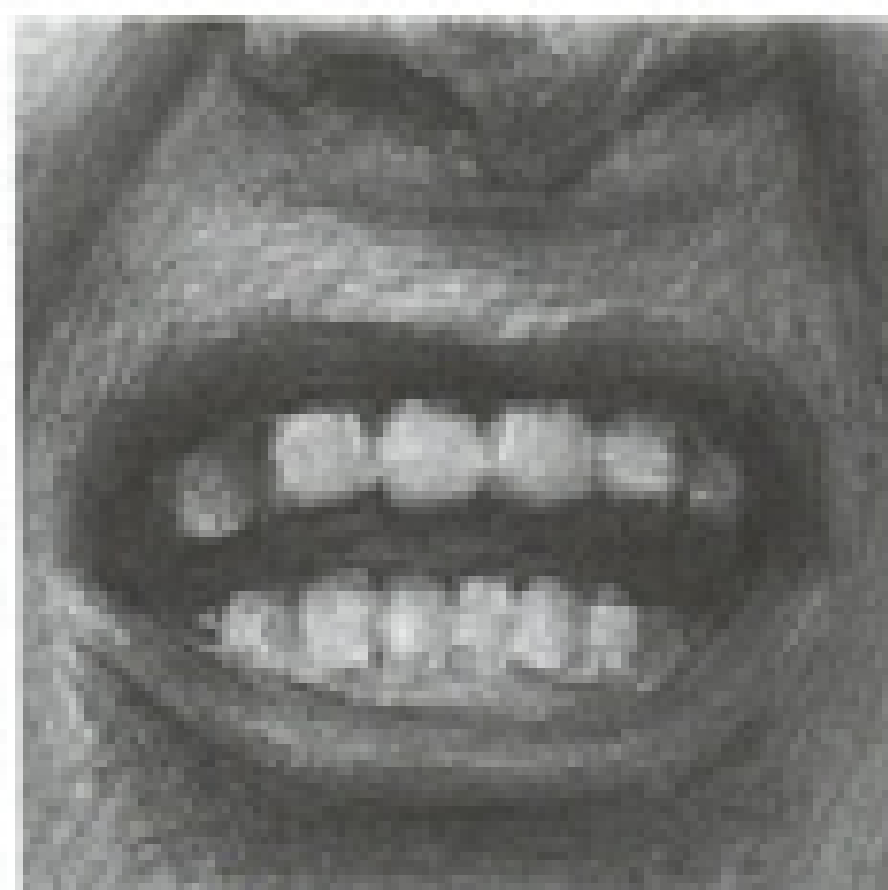
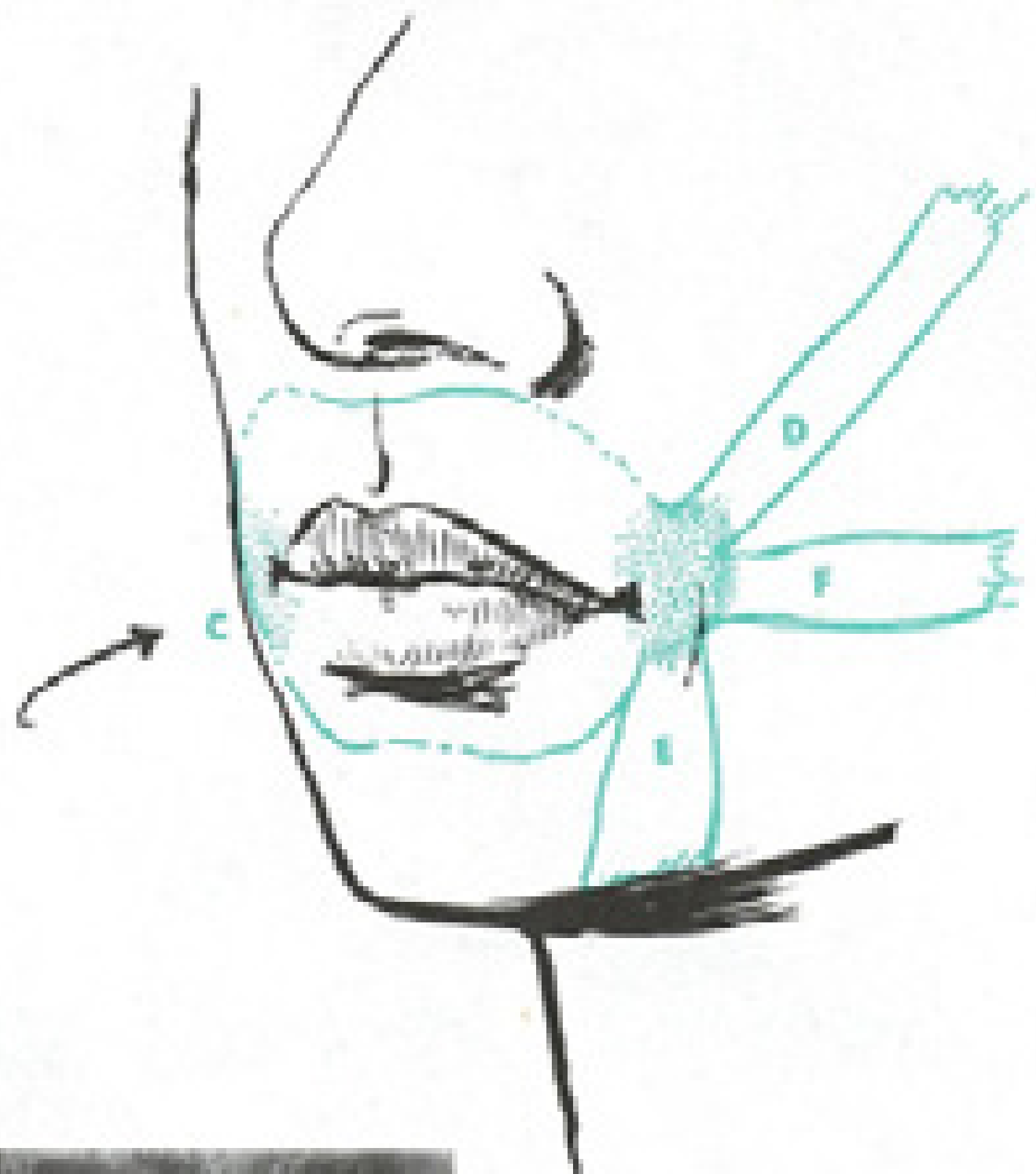
Another action of orbicularis oris is pursing the lips. This is the work of specialized fibers called *incisivi* that pull the mouth corners together, shortening the lips and pushing them outward. The lips pushed out from the face create a sharp shadow below (**A**).

MORE ABOUT ORBICULARIS ORIS



Attachments of incisivis. The incisivis originates on jawbones above and below the lip (A) and attaches to mouth corners (B). Basic action is simple: All sections act together, pulling mouth corners toward each other.

There is a muscular knot at the mouth corner thick enough to see and to feel. You can see it in three-quarter views, where it always makes a subtle extra curve at the level of the mouth (C). The knot is the group attachment of zygomatic major (D), triangularis (E), risorius (F), and several other muscles to the orbicularis oris, holding it in place. On some faces, the entire oval form of orbicularis can be sensed underneath the surface, like a section of a cone (G).



In the shouting mouth, both lips are tight and thin.

The Open Mouth

Most expressions are intensified when the mouth is opened—the mouth is usually opened to add something to a response. The smile, when vocalization is added, becomes the laugh; the frightened mouth opens to emit a scream; the sad mouth utters a cry. Even the relaxed open mouth, depending on the look of the eye and brow, may suggest the face of astonishment or passion. A stroll through the department of primitive art in a large museum reveals that much of the work is in agreement with this principle—in masks, sculptures, and carvings from around the world, few mouths are closed. These are faces full of energy and often strong emotion.

The levator labii superioris (the sneering muscle), the zygomatic major (the smiling muscle), and the risorius/platysma (the lip stretcher), are the key muscles in the creation of open-mouthed expressions. The depressor labii inferioris, which pulls the lower lip downward, also plays a minor role.

NEUTRAL POSITIONS

Opportunities for inadvertently replacing one expression with another in the open mouth are numerous, as with the closed mouth. An attractive open mouth can grade into a sneering mouth

with very little difficulty; a slight extra bend in the corner can turn a laugh into a scream.

The point of reference for our description of the open mouth is the way it looks when it is *merely* open, with none of the surrounding muscles at work. We'll thus have a basis for comparison with open mouths that are *not* relaxed.

The lips part slightly when we breathe. When people are engaged in physical activity, their lips part more often as their breathing rate rises. The average person, walking, opens the mouth fairly often; the average jogger keeps the mouth open. The association of slightly parted lips with sexual activity (which can increase breathing rates quite a lot) is one that has been exploited by advertisers for years.

The Jaw Drops

The dropping of the lower jaw pulls the lips apart. As the lower jaw drops, space appears between the teeth. The corner where the two lips meet is pulled downward slightly and inward. To reach this new joining point, the upper and lower lip alter in shape.

The upper lip, pressed against the fixed upper jaw, changes less than the lower. The moving lower lip has to stretch and bend more to reach the mouth corner. The lip, composed of

two sections, tends to bend in the center and curve gently upward toward the two corners, making a V-shape. It also appears thicker: the lifting of the upper lip exposes its wide upper surface. The upper lip bends where its three sections meet; the outer wings seem to hinge off the center, making a square-arch shape. The more the mouth opens, the more sharply the wings swing down.

Oral-shaped Opening

The net result is an oval-shaped opening, with just the tips of the teeth showing. This contrasts sharply with the way the mouth is shaped in laughing, crying, or angry shouting, when the inner margin is much more squared-off and angular, and whole rows of teeth, either upper or lower, are exposed. Large areas of teeth showing always indicate an expression in progress.

The dropping of the jaw also affects the shape of the whole lower half of the face. It gets longer, of course, and the outline has a stretched and often hollowed-out look to it, as the skin spans between its points of support on the cheekbone and the chin. The chin has not only moved downward, but backward as well—this is clear from a side view. From in front, the face appears narrower.

HOW THE MOUTH CHANGES SHAPE AS IT OPENS



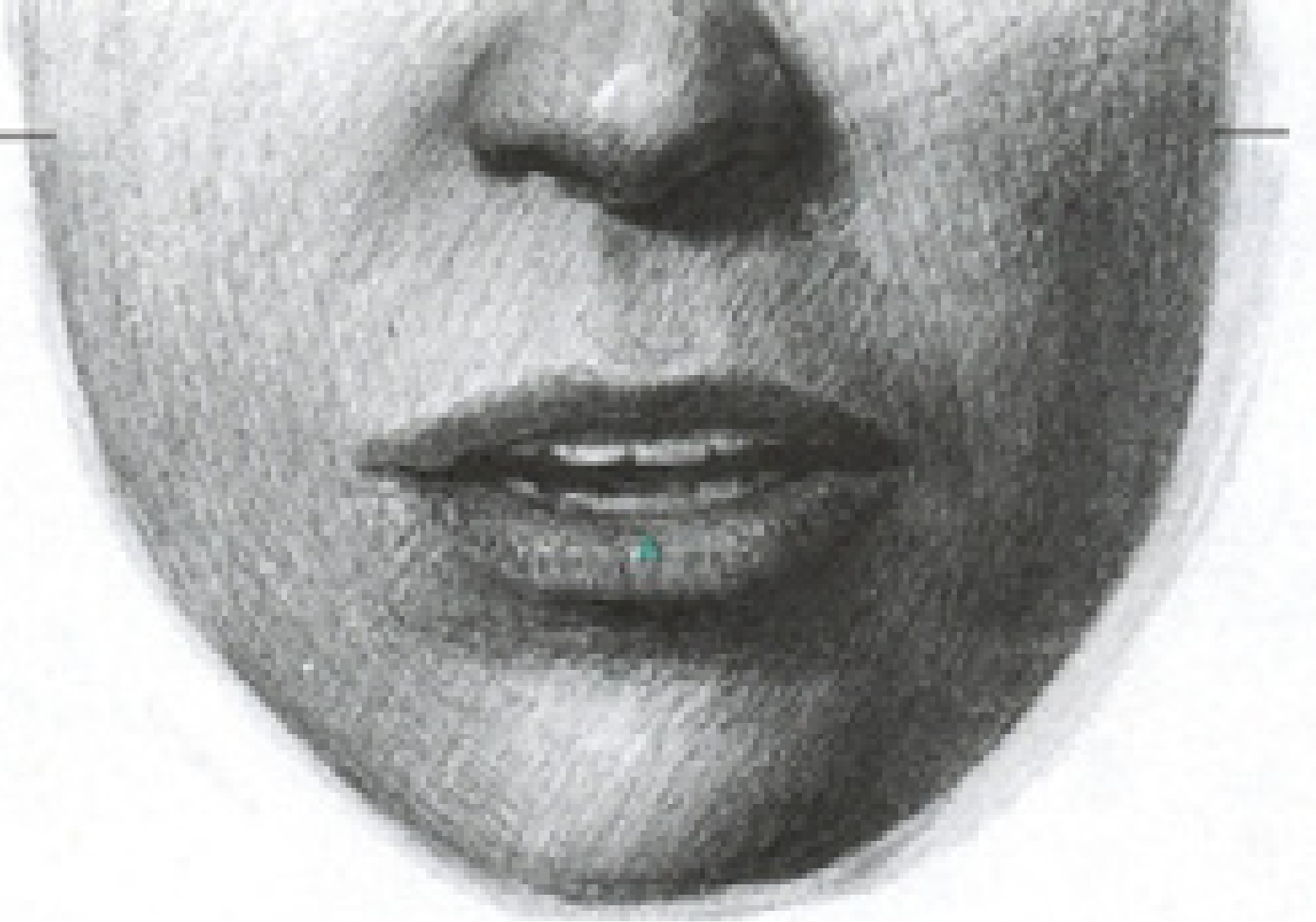
Carefully observing the way the mouth looks when relaxed and open will help us see more clearly the way its shape changes when we're happy, angry, or sad. The oval shape of the opening is the key. In most expressions it squares off dramatically; in none (except surprise) is it oval. Note that as mouth drops, lower lip stretches more than upper, as it follows dropping teeth.

OPEN

Think of the upper lip as divided in thirds. The center third, with dip and peaks, is held in place by teeth. The outer legs "hinge" off the center and angle down to mouth corners. The lower lip appears thicker because the wide upper surface (A), normally covered by the upper lip, is exposed. The top and front of the lip are seen.

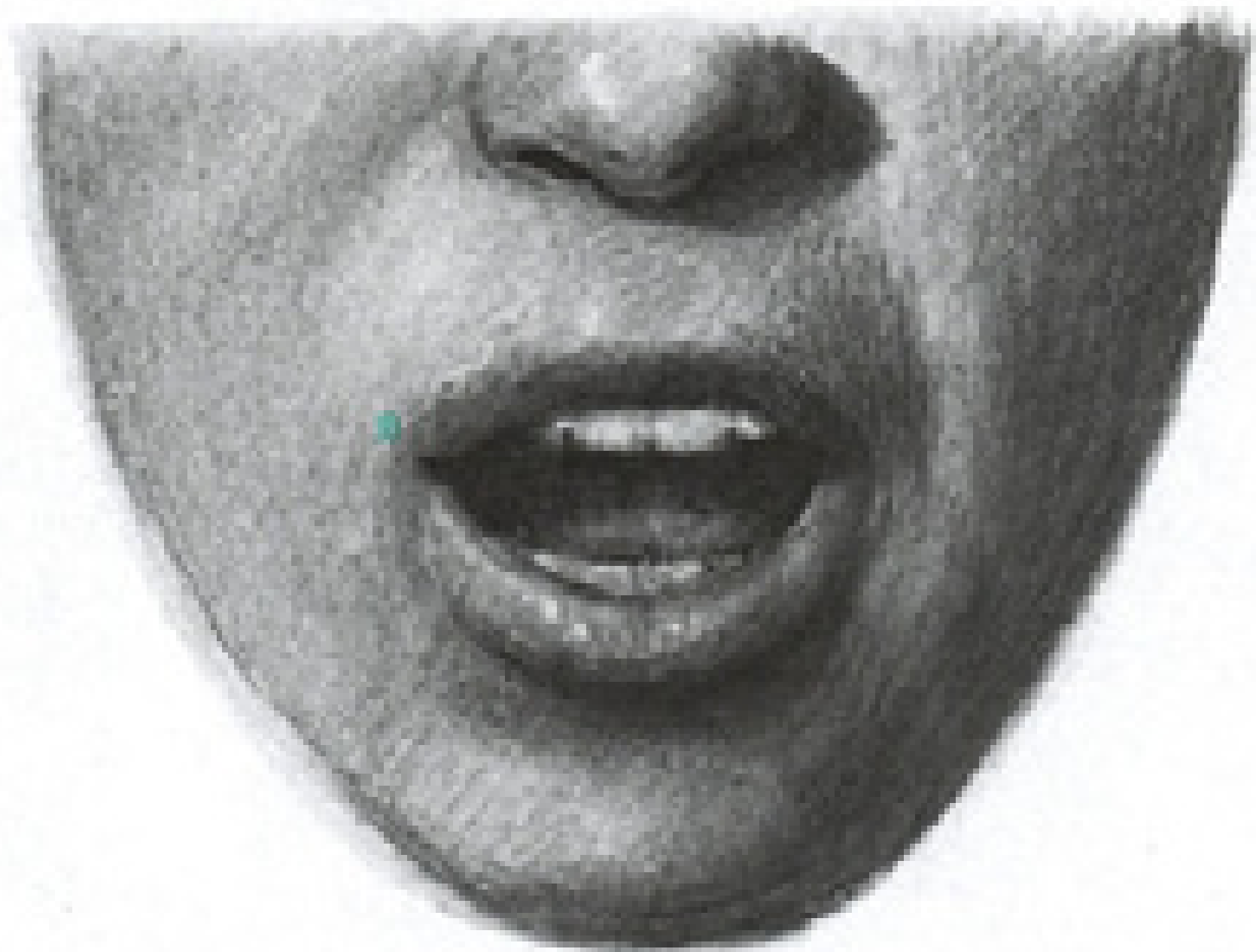
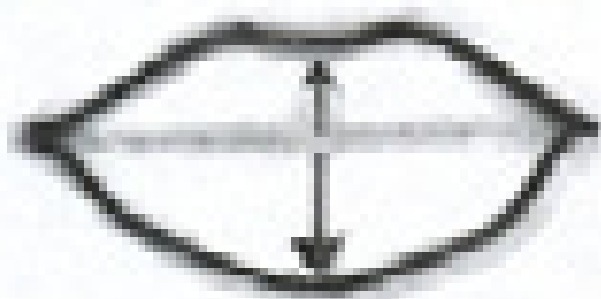


INNER OUTLINE



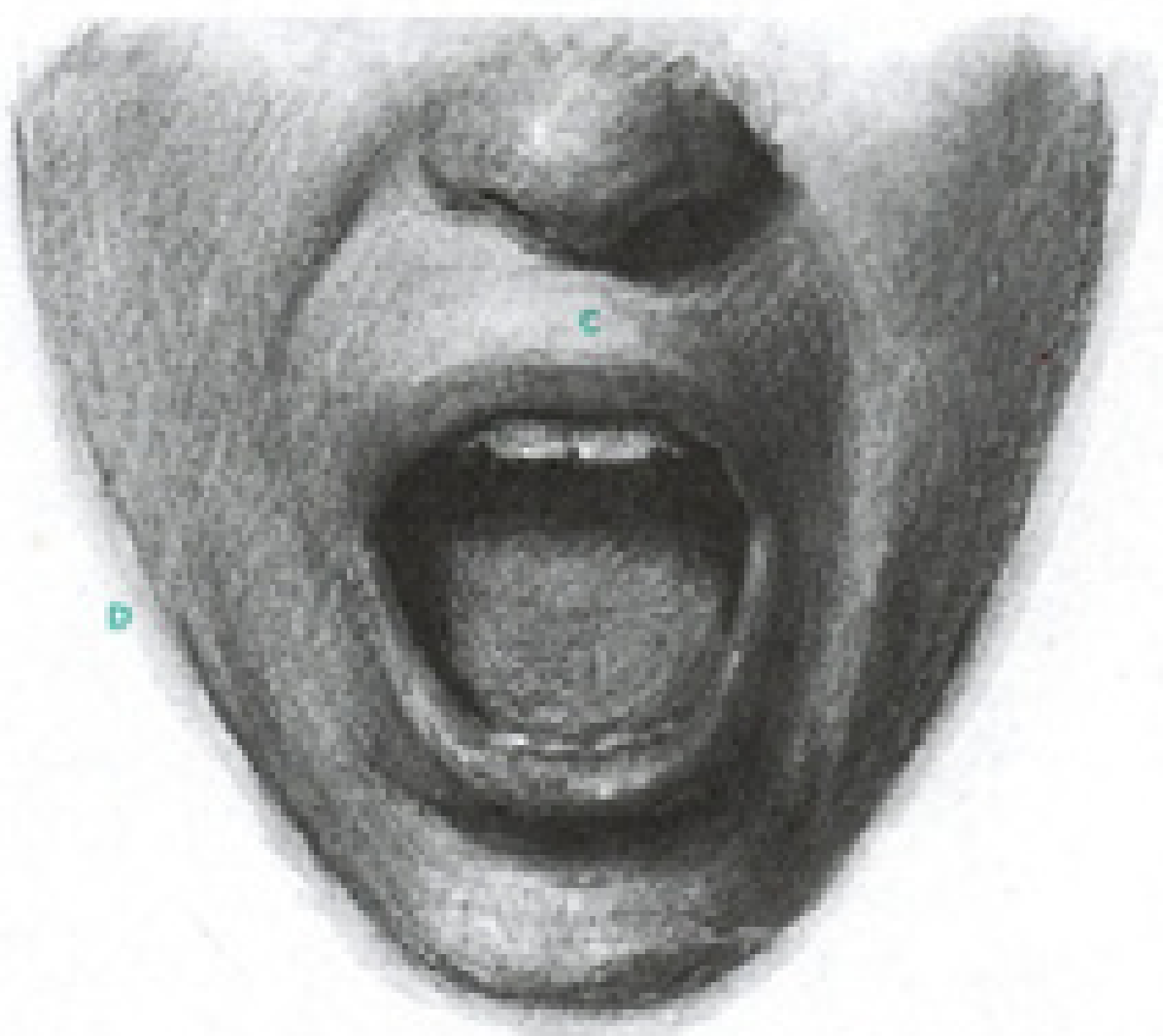
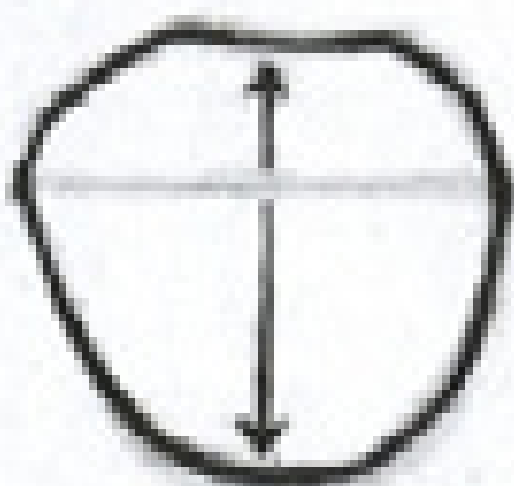
MORE OPEN

There is a sharp break where the inner edges of the two lips meet (B). The lower lip tends to bend right in the middle, forming a V or wishbone shape; the legs curve up to corners and are less angular than the upper lip. When the open mouth is relaxed, only tips of the teeth show and only in the center of the mouth.



MOST OPEN

This pose suggests singing or yawning. With the jaw opened as much as possible, the cone-like form of the mouth setting is most apparent through stretched skin (C). Creases bracket the mouth on either side. Narrowing of the face is made even stronger by the stretching of the skin from cheekbone to chin (D). Often the outline here can be concave, with a hollowed-out look.

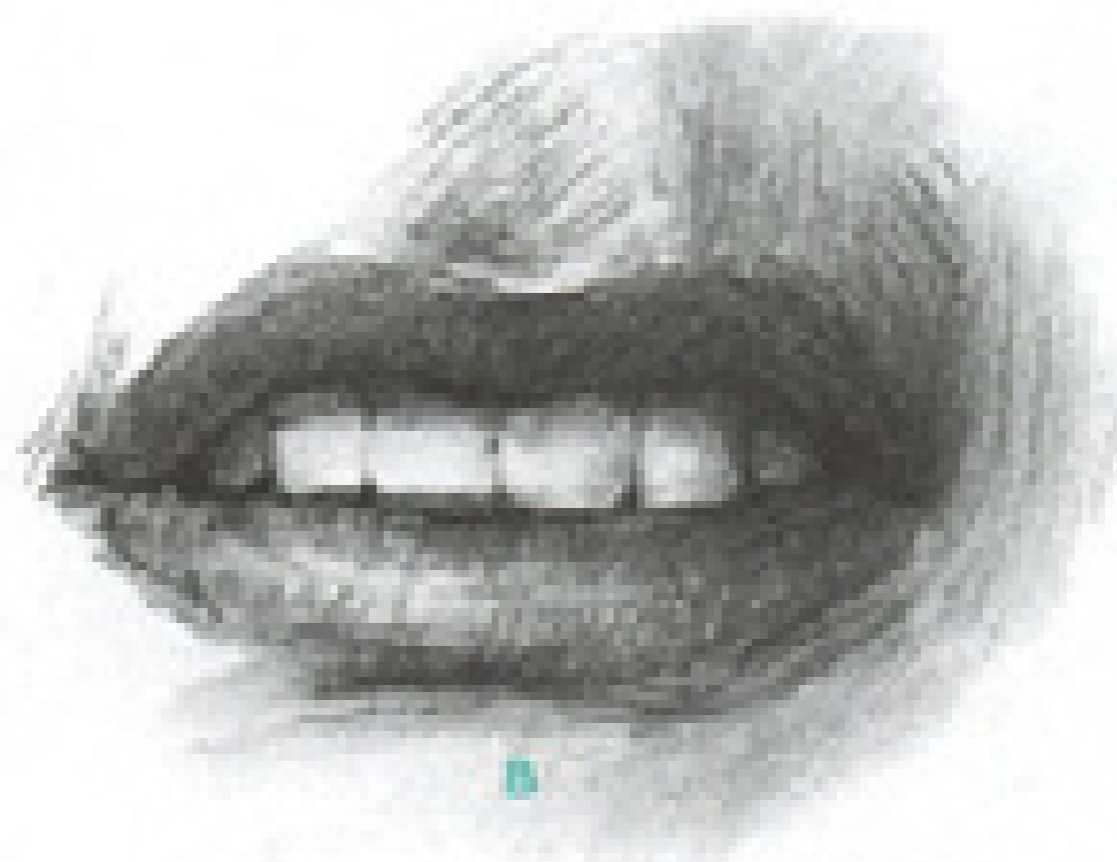


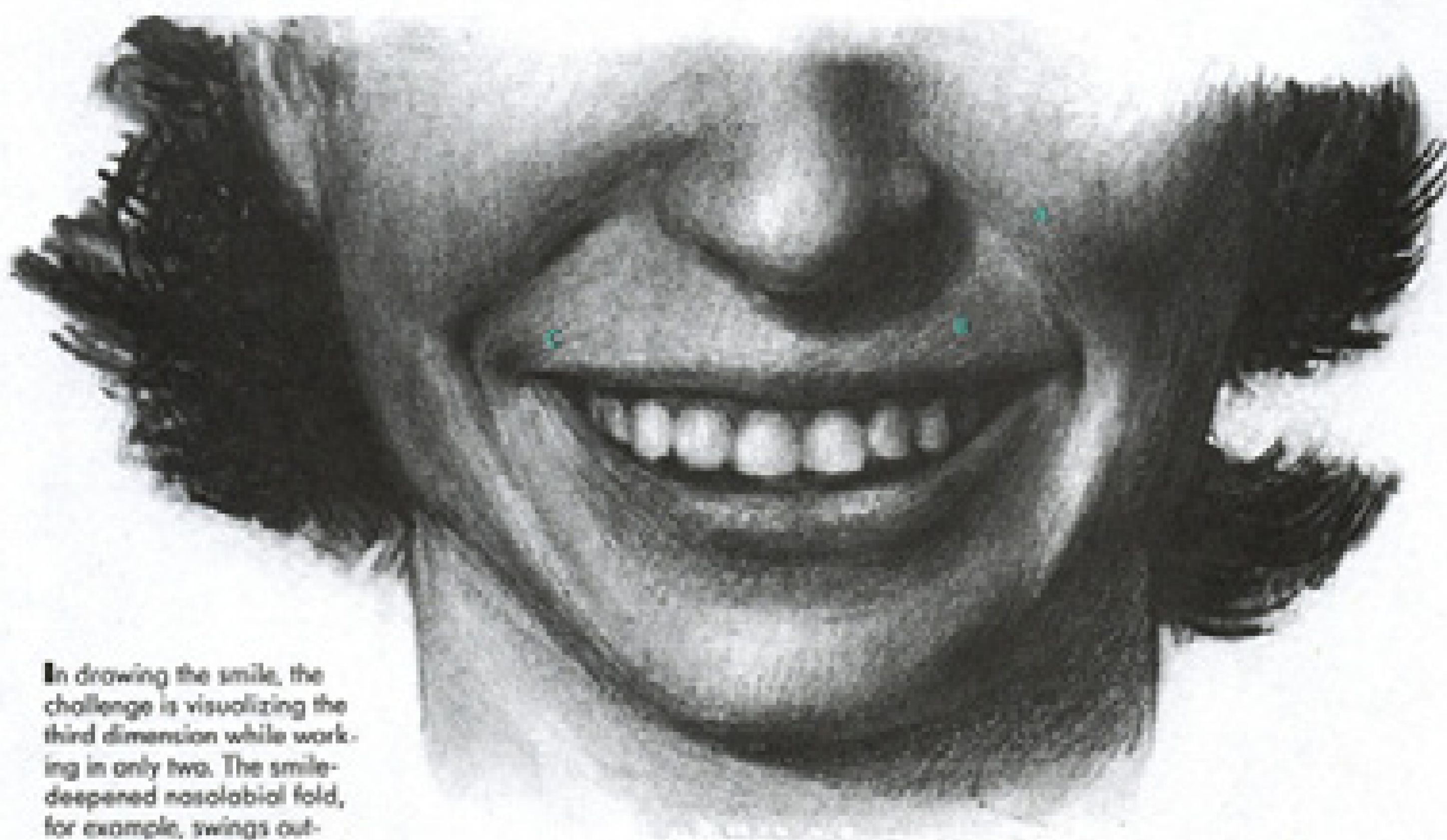
LEVATOR LABII SUPERIORIS: THE OPEN-MOUTHED SNEER

If the pull of the sneering muscle, levator labii superioris, is strong enough, the upper lip is lifted up from the lower, exposing the front teeth. The only other expression that fully exposes the front teeth is the smile, and the two can hardly be confused. What can be confused with the sneer, however, is the arched upper lip.

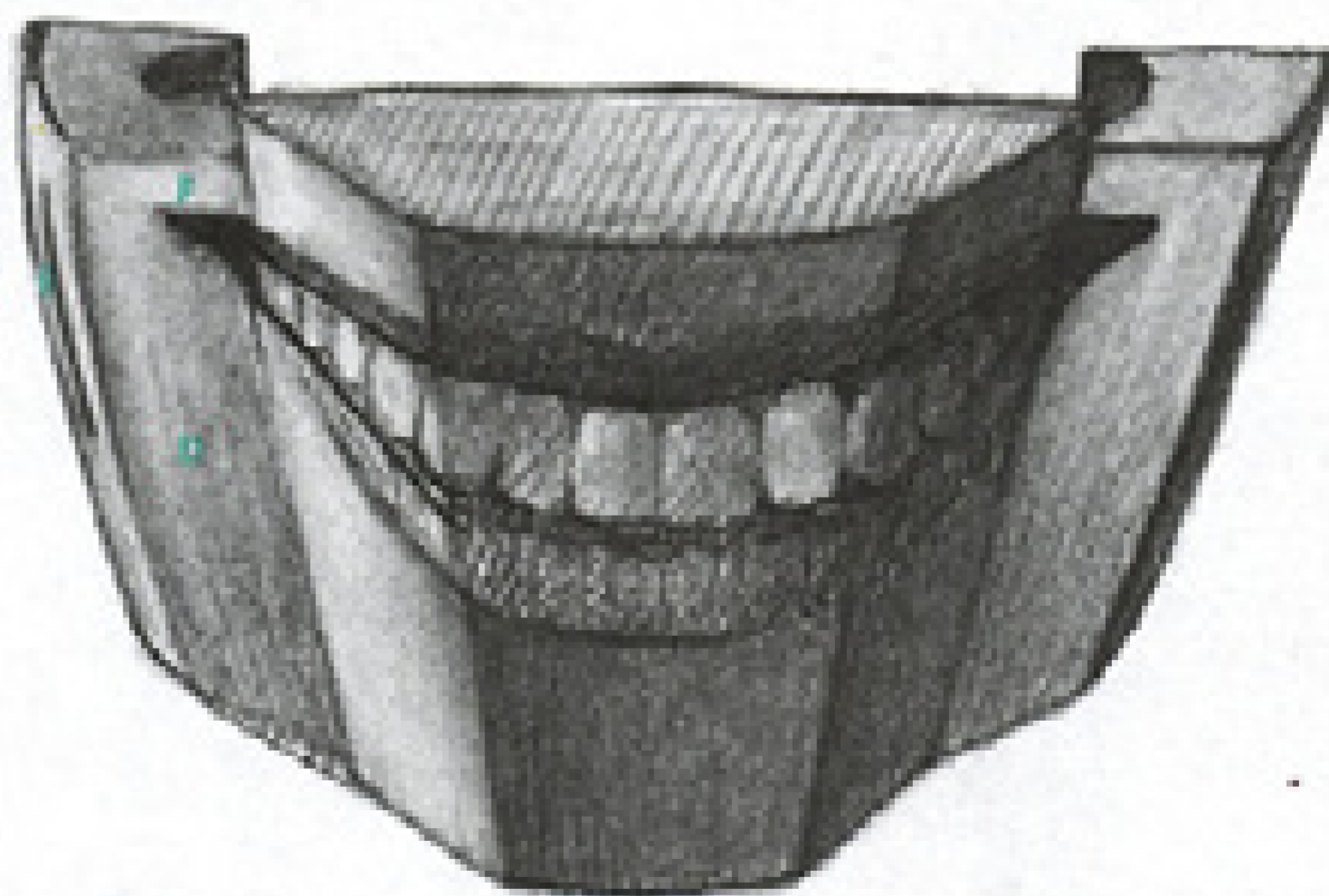
Arched upper lip vs. the sneer. People with arched upper lips form an important minority group, like left-handers. The arch may be fairly high (A) or lower, with only a tiny gap between the lips. The center part is never more than one-third the length of the upper lip, and side angles are not steep. The lower lip line is flat. The sneer occurs when the center is elongated and side angles are steep (B). The lower lip is unaffected.

This (C) is a sneer created by the middle branch of the sneering muscle. Expressions are often asymmetrical; here pull is stronger on the right. Landmarks: deepened nosolabial fold, especially by nose (D); upper lip line with steep outer legs; little curl above lip center (E). A sneer may be so asymmetrical that one-half of the lip is totally relaxed, as in (F).





In drawing the smile, the challenge is visualizing the third dimension while working in only two. The smile-deepened nasolabial fold, for example, swings outward of 45 degrees (A), but at the same time it's moving backward (opposite page). The reason the teeth, chin, and upper lip begin to darken (B) is that that's where they're turning to the side, away from the light.



THE PLANES OF THE SMILE

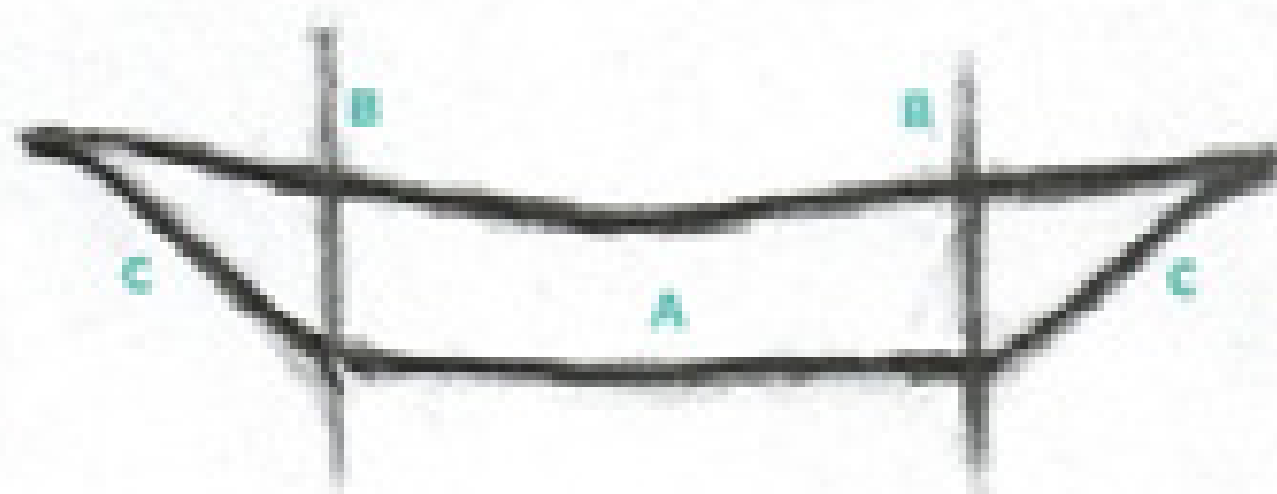
In this schematic representation of the planes of the smile, the front portion of the smile is relatively flat; the sides angle sharply backward. The "corners" (D) that frame the smile can be seen as continuing the front plane of the face, while the dimple (E) falls around the corner, on the side of the face. Notch is at (F).



In the open smile, the lips always point in the general direction of the lower part of the ear. A notch extends beyond where the teeth end (A); it does not follow the curve of the teeth. The lips turn to the side directly below the end of the base of the nose (B). One deep, angled crease above the mouth often turns into two shallower creases below (C). The smile has a notch in the corner, short, narrow, and bending away from the rest of the lip. It can either angle up or go straight across. It's always in deep shadow and is often crossed at the end by a deep, almost vertical fold, like the bar crossing a *f* (D). (E) marks the turning on the far side, where teeth and lips are sharply foreshortened.

ZYGOMATIC MAJOR: THE OPEN-MOUTH SMILE

When the zygomatic major contracts, the oval of the relaxed mouth is stretched into a more angular shape. The smile is the result of the pull of the muscle working against the resistance of the teeth. The teeth keep the smile flat in the middle (**A**); (**B**) lines mark where lips are pulled free of teeth and turn to point back toward the ears, in the direction of the pull. The upper lip is always straighter—the pull is nearly at its height. The lower lip has farther to go, so it angles more. Note difference in the outer legs (**C**).



FORMS OF THE UPPER LIP

The upper lip in the smile is basically a simple shape—flat and curved like a piece of tape, tapering at each end. The center part still has its Cupid's bow, stretched wide but not entirely lost. The outer legs move off the teeth and change direction, curving around to the side. Look for subtle break in outline, change in tone.



Three types of upper lip line in the smile: (**D**) and (**E**) are nearly straight (**D** curves slightly upward and **E** slightly downward); (**F**) is strongly bowed upward—all have a flat middle section; the variation is in the curve of the outer legs. Remember that perspective will change the apparent direction of these curves.

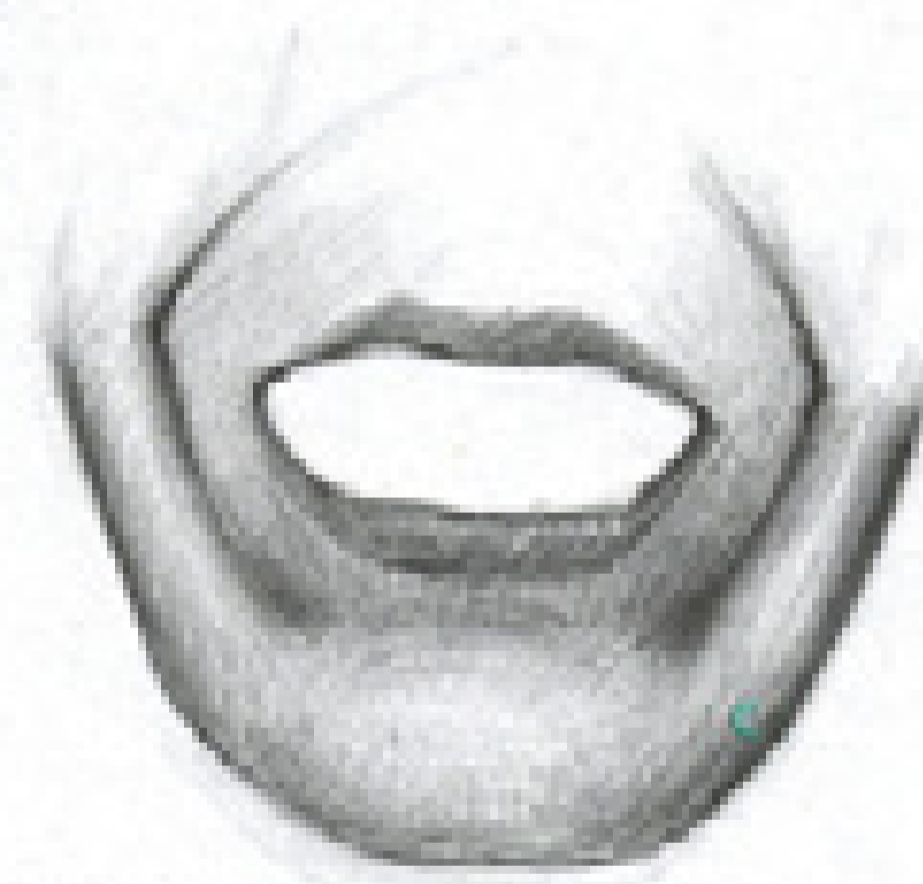
FORMS OF THE LOWER LIP

The lower lip is much less uniform. The thick, rounded center section contrasts with the thin, angled outer legs. The center part looks thicker because the top surface is exposed. The center can be thought of as two egg forms, side by side, attached to thin handles. The outer legs break sharply with the center directly below a similar break in the upper lip. The upper edge is sharp and often catches bright lights, contrasting with the deep shadow above it.

ZYGOMATIC MAJOR: THE OPEN-MOUTH SMILE



The open-mouthed smile expressed as a pattern of light and dark, the light seen as falling from above. The deepest shadows are planes that undercut; deep shadows also notch at lip corner and under top edge of upper lip. (A) shows the undercut of cheek, where the nasolabial fold is deepest. (B) shows notch and rope-like mound alongside; (C) is a cartoon version of the same thing.



This drawing isolates the frame that frames the laugh. The sense is of two ropes, starting where the nasolabial fold ends and "melting" into the chin. The dimple marks the outside of the frame. The "rope" is more distinct in the laugh. An extra line forms (C) as the chin folds against neck.

THE LAUGH

A laugh is a smile with space between the teeth. The one thing about the mouth that is different is the outer legs of the lower lip—these angle upward much more steeply (A), as does the nasolabial fold (B). The sharp turn in the upper lip is clear in this laugh. Note that the full row of teeth and tips of lower teeth are exposed; a distressed mouth will show a full row of lower teeth.

THE STRETCHED LOWER LIP: RISORIUS (AND PLATYSMA)

You may see people on the street corrugating their corrugators, flexing their frontalis, or even trying out a little one-sided sneering; but don't look for any demonstrations of the risorius; that is, unless you're living in a combat zone. The risorius, the muscle of the stretched lower lip, is not only a muscle of the distressed face, it's the only one that appears only in extreme distress, and not otherwise. We don't see it in the face of someone who's merely sad, for example, but if they get even sadder and begin to cry, that's when the risorius will appear. Just being afraid or angry isn't enough, but we have to be scared out of our wits, or angry enough to be dangerous. It's sort of the ambulance chaser of the facial musculature, waiting for something cataclysmic to occur before it stirs into action.

At one time, risorius was thought to be a muscle of pleasurable expressions. Even now there is no firm agreement among anatomists on the role of the risorius; some say that other fibers, parallel and slightly deeper, do most of the job of stretching the lower lip, and the risorius is a minor player at best. Others say that the risorius is the main agent, and the deeper muscle, the *platysma*, the neck tensor, is the sidekick. Since this is a matter for the anatomists to sort out, we'll compromise, and say that the *risorius/platysma* does the job.

Attachments and Actions

The risorius is quite simple in its construction. It attaches to the muscular knot at the mouth corner, along with the *triangularis* and *zygomatic major*. Each of these muscles acts on the corner in a different way: *triangularis* pulls it down and out, *zygomatic major* up and back. The risorius pulls the mouth corner toward its own origin, a layer of connective fiber overlaying the back of the jaw.

The *platysma*, however, is as much a muscle of the neck as of the face. Think

of it as a sort of an unrolled turtleneck, a broad, thin sheath rising up from the collarbones and upper chest and attaching all along the lower part of the face. Actually, it's only the *front* half of the turtleneck. *Platysma* covers the front half of the neck and shoulders, then stops abruptly before reaching the back. The part we're interested in comes up from the side of the neck and runs underneath the risorius to attach to the mouth corner.

You can see how closely lower-lip stretching and neck tensing are linked



Roman mask of tragedy. Since ancient times the square mouth shape created by risorius/*platysma* has appeared in art as the personification of horror.

by trying it on yourself. As soon as you begin to stretch your lower lip sideways, you can feel a corresponding tension in the neck; if the action is strong enough, you'll see thin vertical pillars rise up from the surface of the neck folded by the action of *platysma*.

Effects on the Lip and Its Surroundings

When the lip stretcher contracts, the lower lip is the one most strongly affected. In the smile, the upper lip is stretched straight and the lower lip bends; with the lip stretcher, the lower

lip is stretched straight and taut, and the upper lip bends. The sideways pull tends to shove the lower lip back into the face, pressing it up against the teeth and flattening its subtle curves into a single ribbon. The entire lower lip becomes uniform—a straight line above, a nearly parallel straight margin below.

The signature wrinkle of the risorius/*platysma* is a bracketlike fold that appears under the mouth, starting at either mouth corner. In shape it's like an extremely elongated, square *U*, depressed into the face. It's deepest where it begins at the mouth corner, creating a crease that angles downward. It appears when the action is strong.

A strong action of the lip stretcher, as occurs in crying, will also bunch up the face to either side of the mouth. Two wide, ropelike mounds, similar to those that appear in laughing (but less well defined), frame the mouth and seem to hook underneath the chin.

The Square Mouth

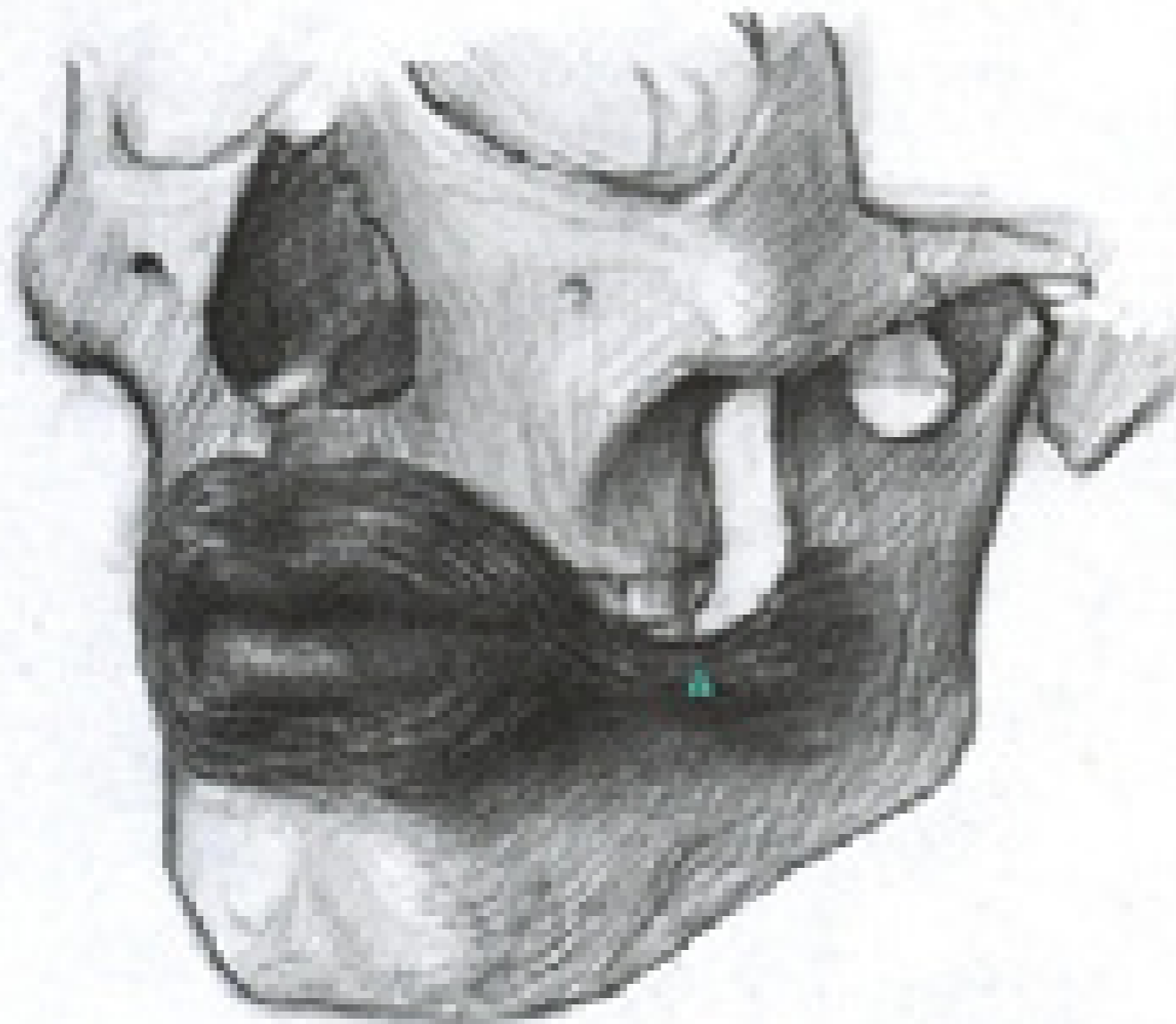
In all the open mouth expressions, the way the teeth show tells you a lot about the nature of the face. The risorius exposes the lower row of teeth, not the upper, and these are seen all the way across the mouth, not just in the center. When all the lower teeth are showing, it's a bad sign. The upper teeth, however, remain hidden even if the mouth is open wide. In the expression of anger, where the risorius is active, the upper teeth are seen because the upper lip has been lifted by the sneering muscle.

The net result of the actions of the risorius/*platysma* is to produce the "square mouth" shape that is a crucial component of the faces of crying, fear, and anger. Anatomists have speculated that the lip stretching action is related to the preparation of the mouth for screaming, and that our ancestors long ago found the shape an efficient one to produce a piercing, attention-getting sound.

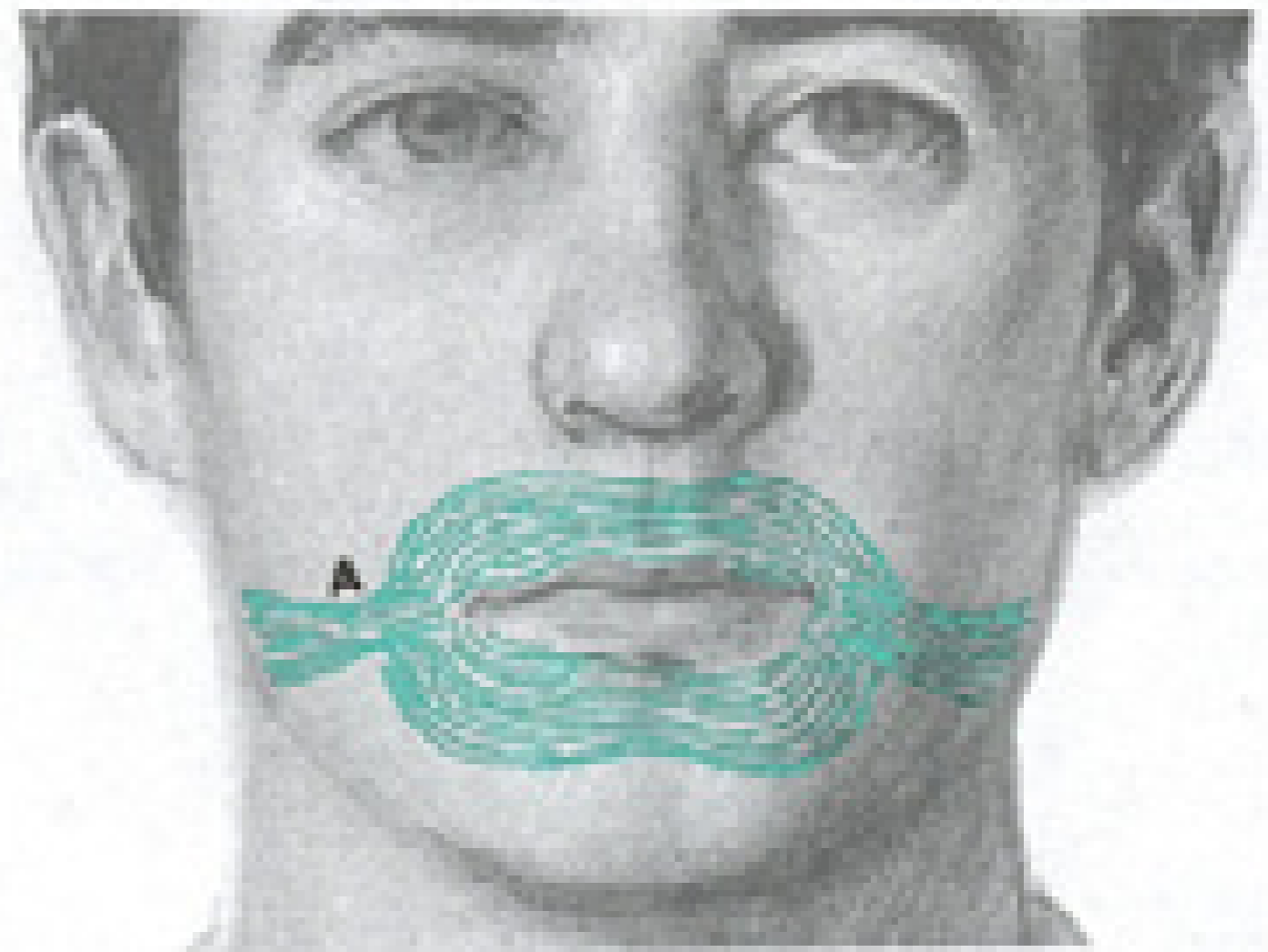
RISORIUS/PLATYSMA: THE LOWER LIP STRETCHERS

The risorius/platysma is a muscle of extreme circumstances. The act of stretching the lower lip—creating the “square mouth”—is not one we do casually or conversationally, like lowering the brows. When the lower lip

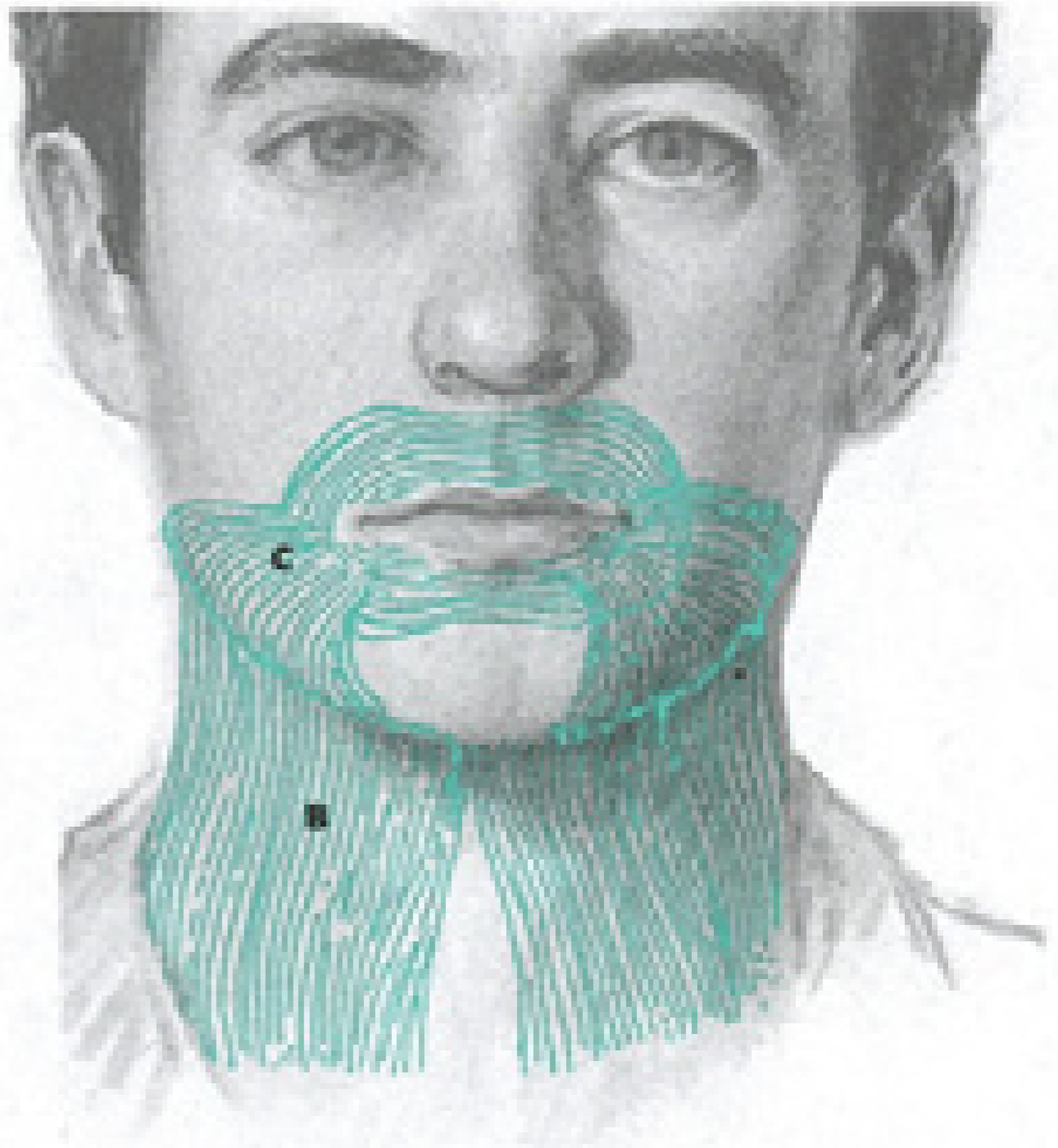
stretches, the neck tenses. This connection has prompted anatomists to consider the link between the risorius and the neck-tenser, platysma. Their respective roles are still uncertain, but one action definitely calls forth the other.



The risorius (A) inserts into the muscular knot of the corner of the mouth at the same location as zygomatic major and triangularis. It originates on a connective layer over the upright leg of the jaw. When it contracts, it pulls the mouth corner straight backward.



The platysma (B) is a thin shroud that hangs down from the lower face and covers the front of the neck. It may extend down past the collarbones onto the chest. The fibers of its side portion (C) run parallel and beneath those of the risorius; it too attaches to the mouth corner. Besides pulling the mouth corner straight back, it tenses the skin of the neck, raising thin, vertical wrinkles.





Actions of risorius/platysma. When the risorius/platysma contract, the mouth corners are drawn sideways. The action has much more effect on the lower lip than the upper. The pull is primarily at lower lip level. The lower lip is stretched into a taut, even band, with straight-line upper and lower edges. The lip becomes slightly more recessed and as a result is surrounded with a soft fold, stretched between mouth corners—the signature wrinkle. The entire front row of lower teeth are bared. In the most visible contribution of platysma, raised bands appear on the front and sides of the neck (**D**).

A. Rectangular inset below lower lip, where skin is flattened against chin.

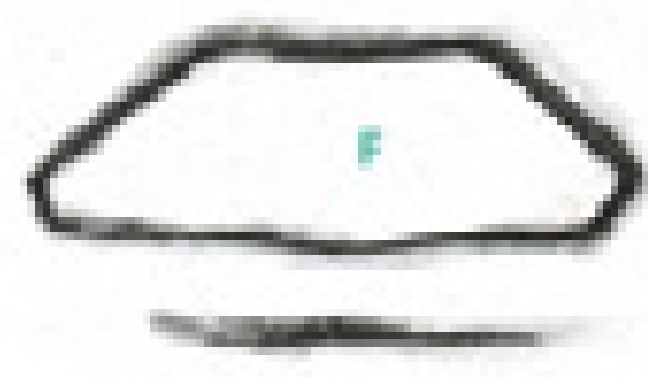
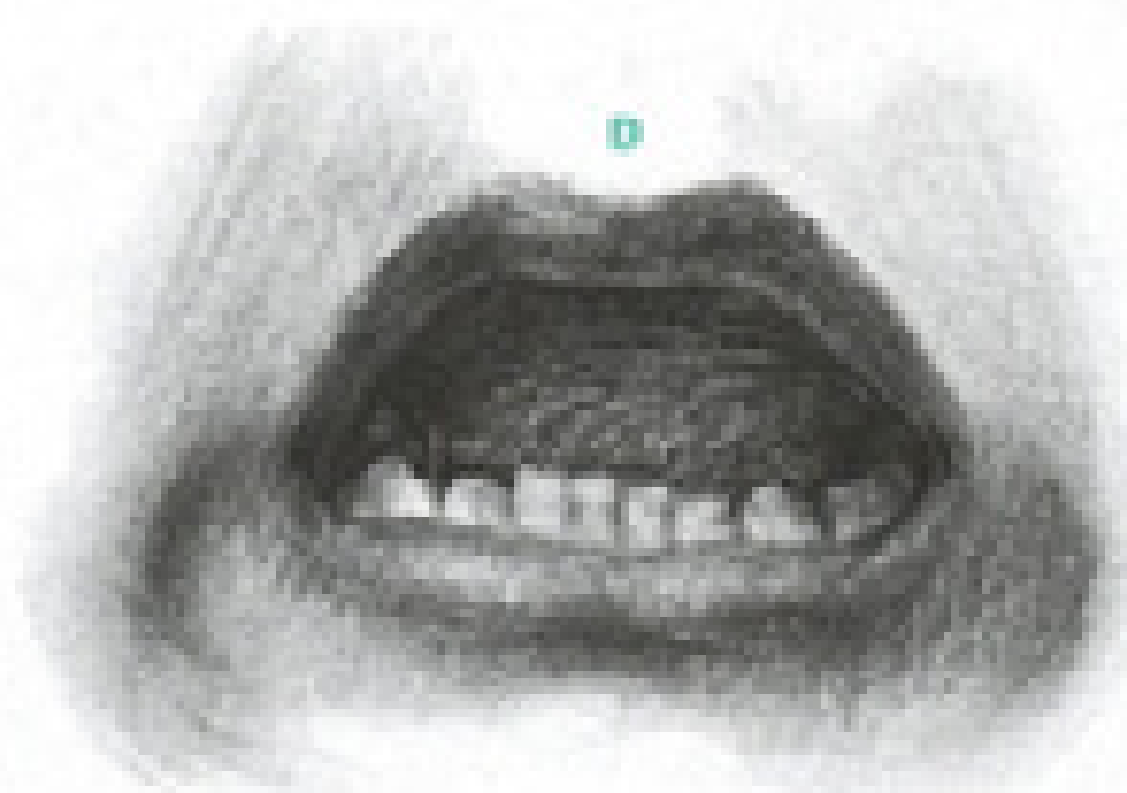
B. Soft, rope-like bulges appear here, extending down to jaw.

C. Middle portion of upper lip mostly unchanged; outer legs hinge outward and stretch slightly down to mouth corner.

D. Wide mouth. Brackets around mouth form when action is strong, deepest of corners. Upper teeth hidden.

E. Inner outline of relaxed mouth.

F. Inner outline of tensed mouth. This is the “square mouth” shape; note corner angle.



LOWER-LIP CURL: DEPRESSOR LABII INFERIORIS

Finally, we arrive at a muscle that has no reputation, few enemies, and not coincidentally a very minor role to play in facial expression. The impressively named *depressor labii inferioris* (depressor of the lower lip) is the muscle that curls the lower lip downward, and if that doesn't strike you as a very dramatic movement, you're correct. I've included it because it is a key muscle in the act of speaking and does appear, in combination with other, more expressive muscles, in a few of the expressions I've illustrated.

There are two strands of this muscle, one on the left, one on the right,

and each runs from the lower lip down to the chin. The two strands contract together and curl the entire lower lip straight down, exposing more red area and showing the entire lower row of teeth.

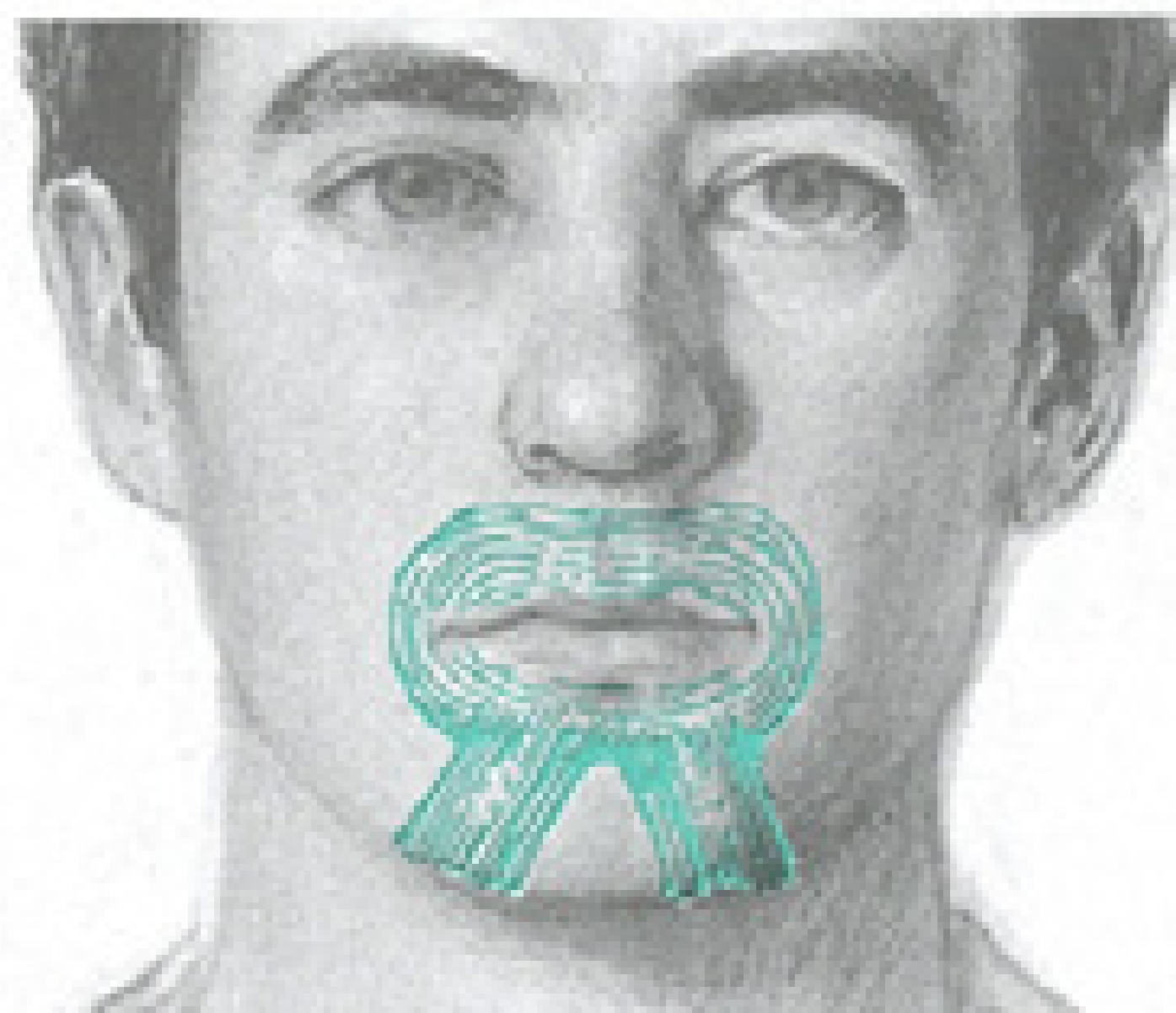
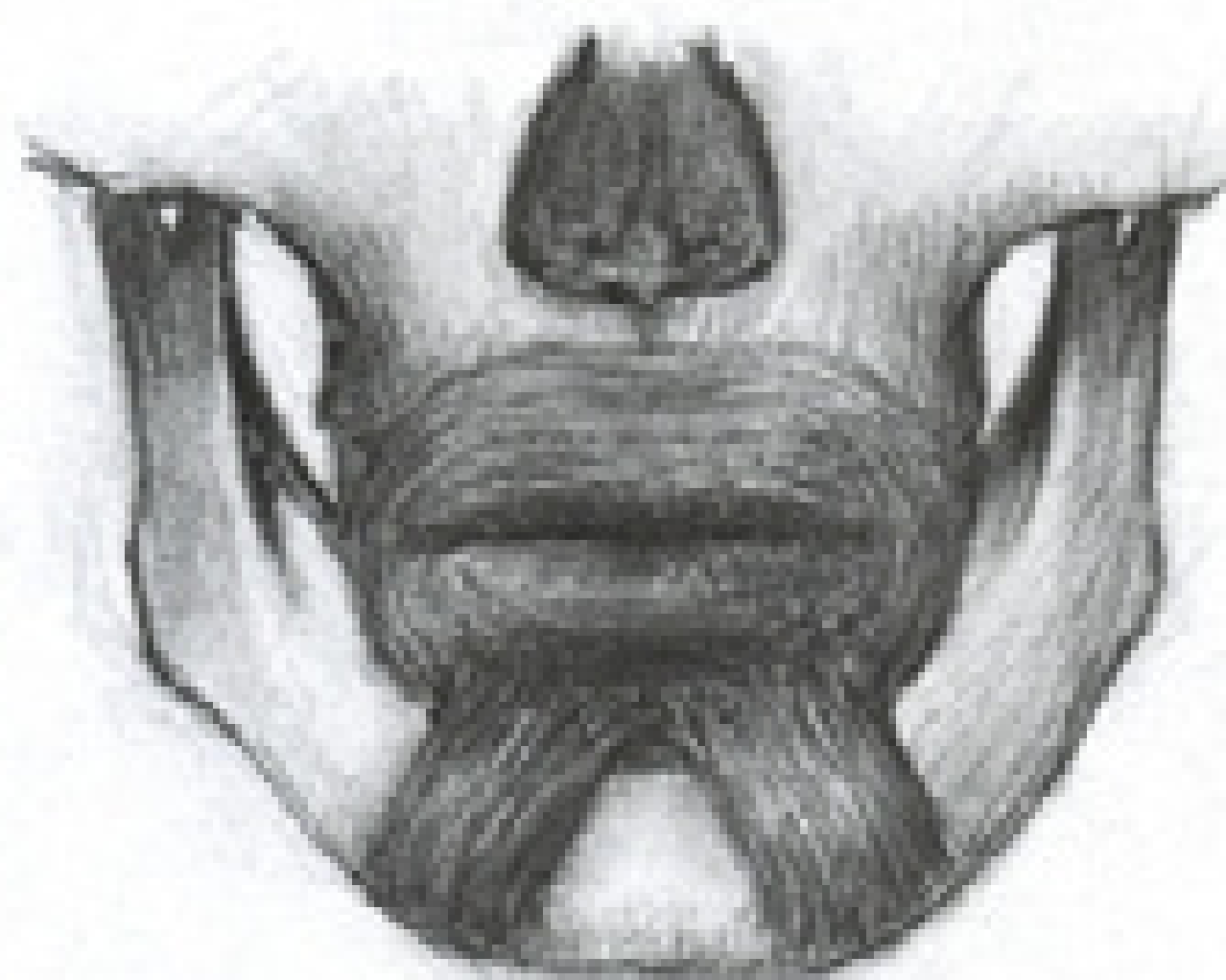
The lower lip forms a thick square *U* with a well-defined edge running along most of its lower margin. The risorius/platysma, which also exposes the lower teeth, stretches the lip and widens the mouth, two things that do not happen with the lower lip curl. The way the teeth are uncovered is different as well: the *depressor labii inferioris* bares the teeth down to the gums, further than with the risorius.

The chin may wrinkle slightly

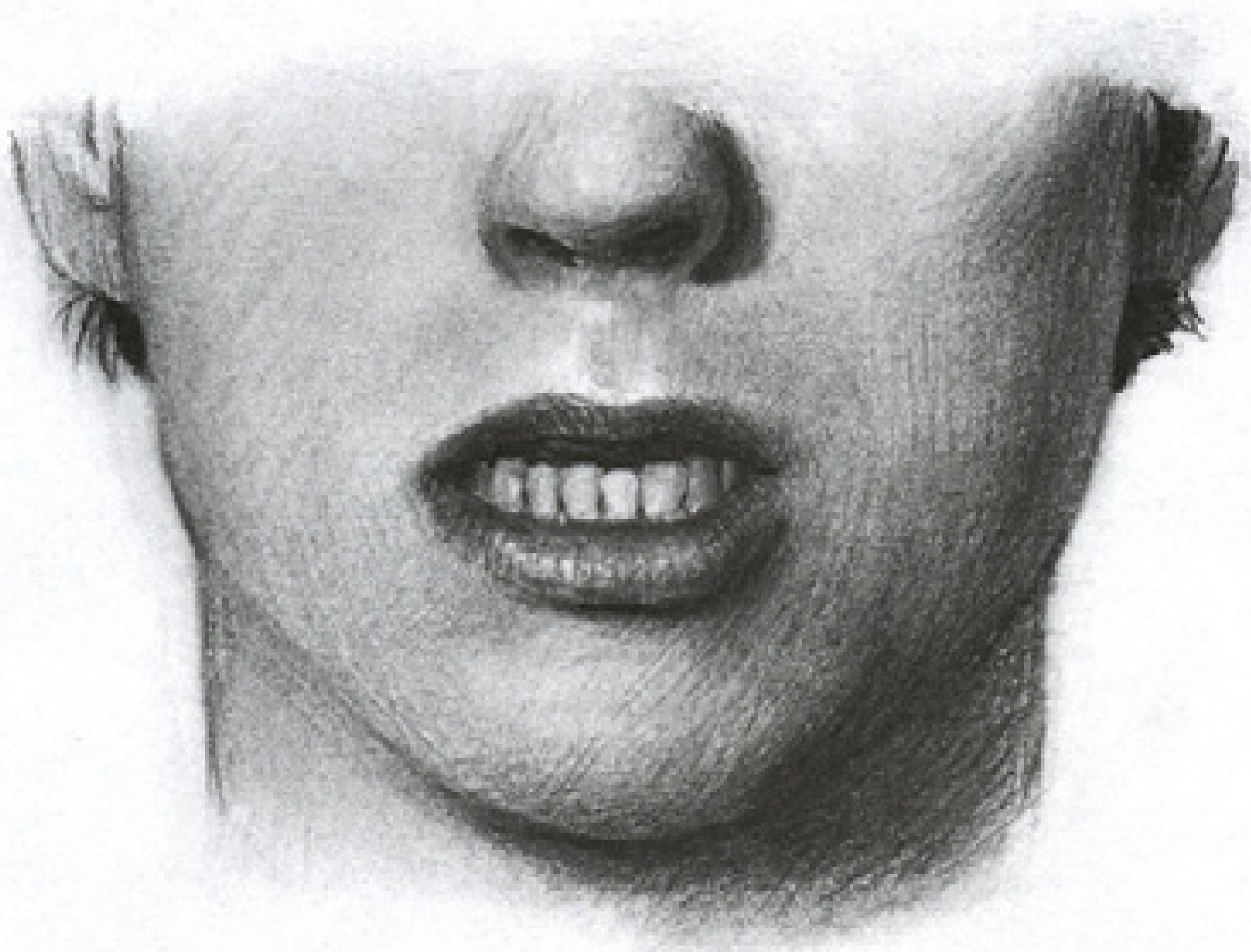
SUMMARY

In this chapter I've laid out the expressive vocabulary we have available to us—the raw materials from which facial expressions are made. At times, just a simple change from the neutral—an open mouth, a downturned eye—can enliven the face enough for some purposes. To understand how the face communicates more complex physical and emotional states—pain, fatigue, sorrow—we will next explore how the various elements combine. In some cases, muscles that have been described in solitary action will be seen teaming up with other muscles, creating facial changes that retain elements of both.

DEPRESSOR LABII INFERIORIS: THE LOWER LIP CURL



The *depressor labii inferioris* is designed to pull the bottom of the lower lip straight downward. Its fixed, bony origin is on the edge of the jaw, on either side of the chin. Its other end is stitched into the bottom edge of the lower lip and the lip circling muscle, orbicularis oris. When it contracts, it pulls the lip toward the jaw.



The lower lip curl affects only the lower lip, and neither the upper lip, nor the mouth surroundings are changed (the chin may wrinkle a bit). The lip is gently turned inside-out and takes a shape like half of a doughnut—thicker looking and with a steep undercut beneath. The lip curl is primarily an action of speech.



From side view, it's clear how the action of the depressor labii inferioris pulls the lip out from the face, exposing the lower teeth.



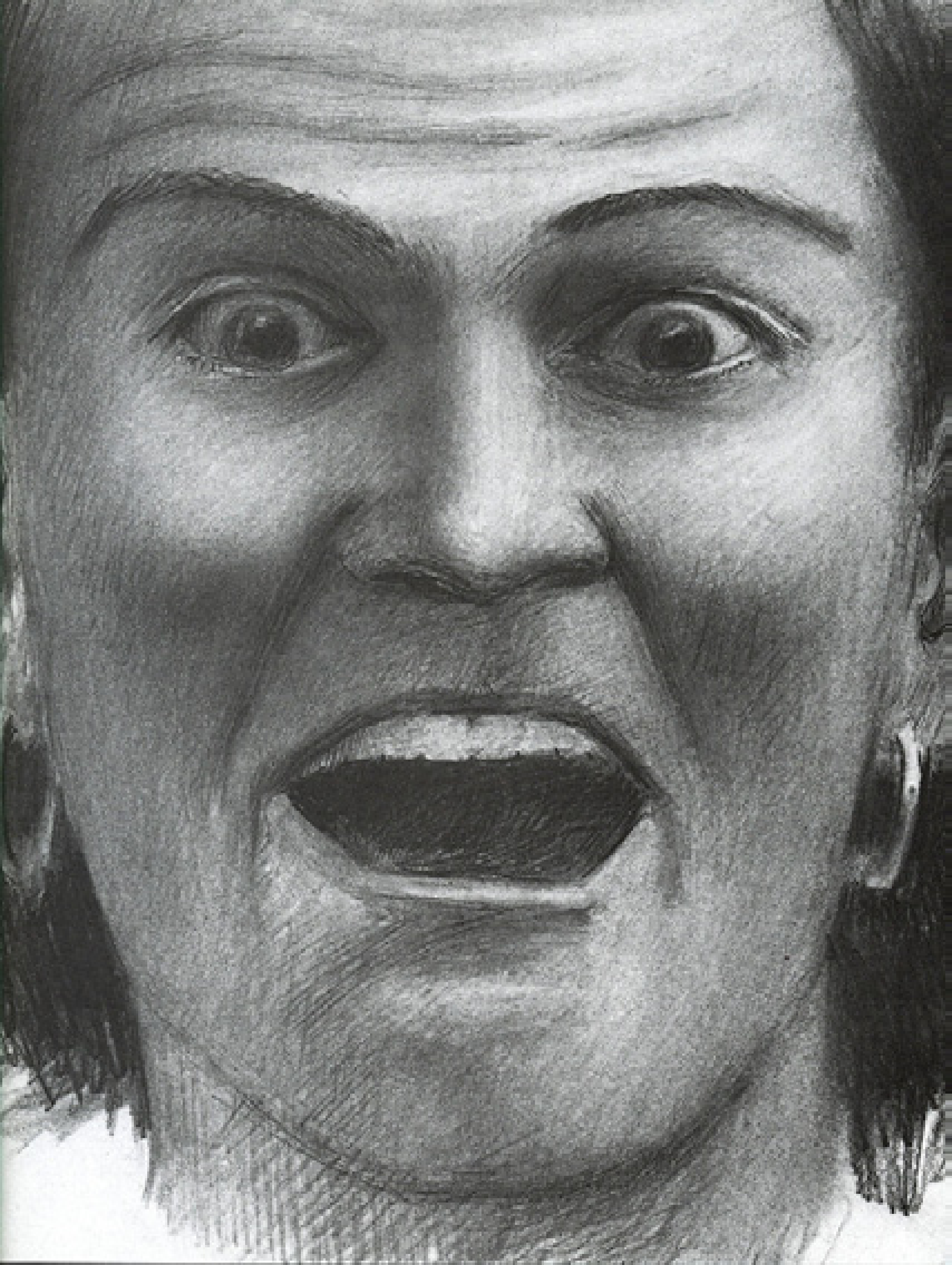
MOUTH RELAXED



CONTRACTION OF RISORIUS

SIMILAR ACTIONS

The lower lip in the relaxed open mouth looks thicker, but is not curled out from face. Only tips of the lower teeth are exposed. In risorius contraction, a full row of lower teeth are exposed, but the lips are stretched and the mouth widens. Depressor labii inferioris, by contrast exposes lower teeth down to the roots, creates deep overhang under the lip, and doesn't stretch or tighten the lip.



THE SIX BASIC FACIAL EXPRESSIONS



SADNESS



ANGER



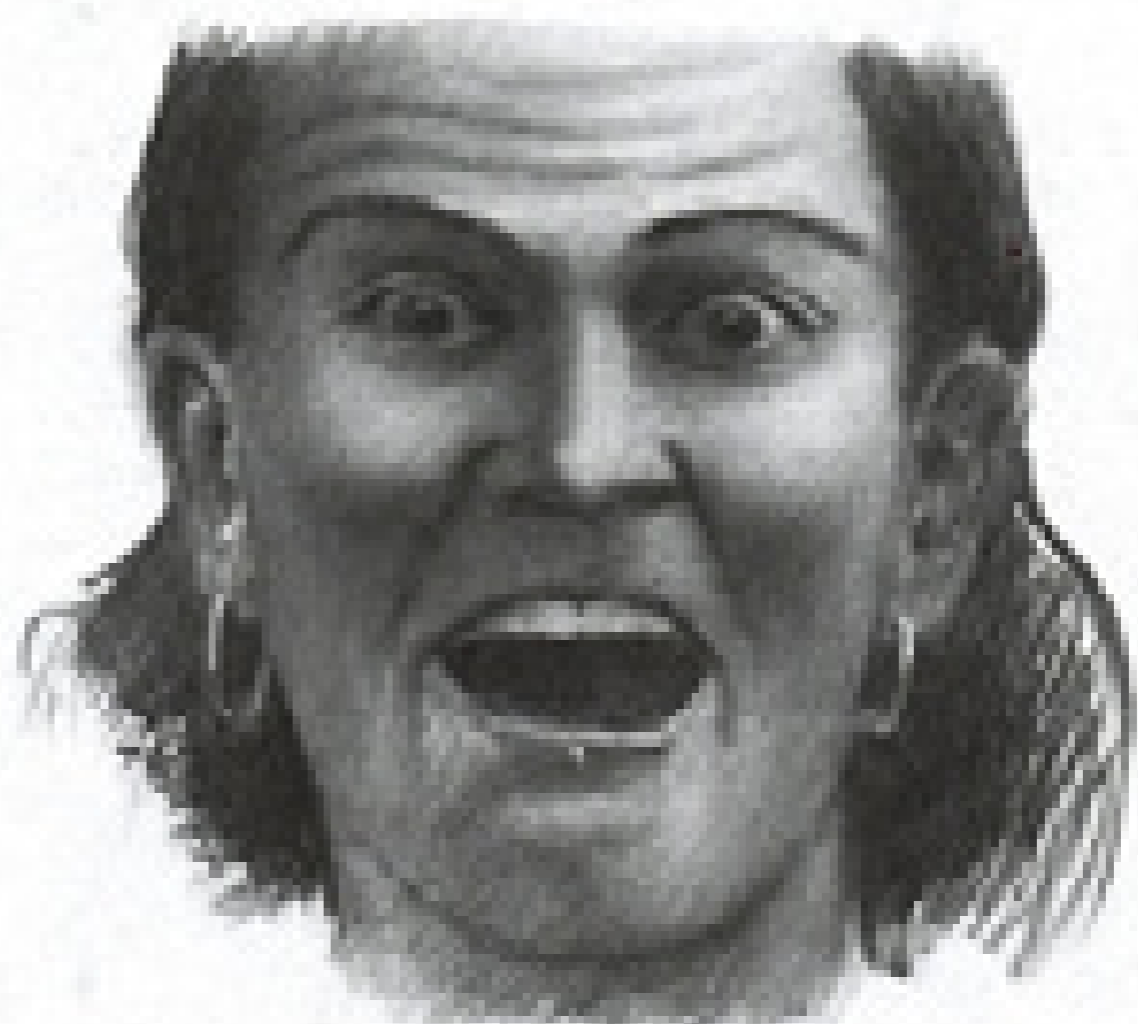
JOY



FEAR



DISGUST



SURPRISE

THE FACE BEHIND THE FACE

These two faces (below and right) both demonstrate the expression of surprise, but they are poles apart in every other respect. The photograph (below), with its mechanical recording of detail, exemplifies the literal, unselective approach. By contrast, the shell face (right) has only those details that are essential to identify the expression of surprise. These essential details form the "code" for the expression: an O-shaped mouth and widened eyes.



Both elements of the code must be present for surprise to be recognized. Removing either will drastically change what we perceive. If, for example, the circles around the eyes (1) are removed (2), the expression is lost. The circles around the dots simulate the surprised eyes' raised lids. In surprise, the eyes have more control over the look than the mouth. When the mouth is widened (3), the expression changes little; when the eyes are widened (4), the astonishment in the face appears to increase. The mouth is crucial in expressing fear. Fear is seen if a blunt wedge shape is substituted for the circle (5).





Only expressions in which both key areas—eyebrow and mouth—are involved will communicate a clear emotional message. In the first face (top) only the mouth appears active, and the expression is ambiguous: she might be yawning, taking a deep breath, singing, or pantomiming astonishment. The second face (bottom), with activity in both key areas, is seen in just one way: surprise.

Not only do the active eyes complete the expression, but they change the way we look at the mouth. Cover the eyes and the mouths seem identical. Uncover the eyes, and the lower mouth seems more active, more open than the other. One part of the face “looks” its influence on the other, changing what we think we see: The mouths are identical.



THE FIRST EXPRESSION: THE BABY'S CRY

It all begins with the baby's cry. The first expression we make is a statement of pure need, designed to get noticed. The square-mouth shape produces a shrill sound more penetrating than that of a relaxed, open mouth. As the lower half of the face opens up, the top half closes down; the reflexive squinting of the eyes in crying is also instinctive in other expressions where quantities of air are expelled: laughing, sneezing, coughing.

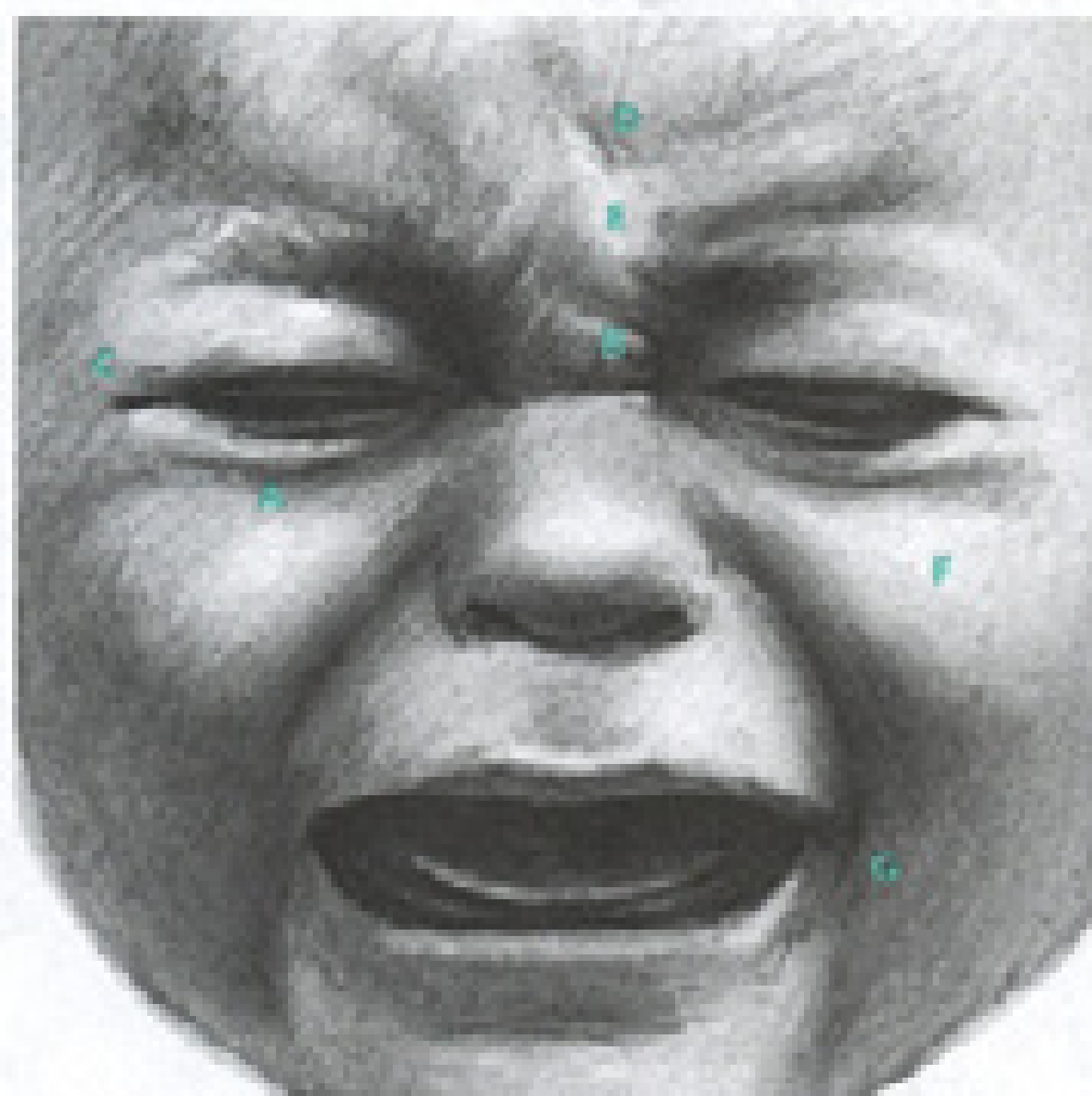


THE TIGHTENED EYE

You can't cry with your eyes wide open, nor can you sneeze. When we do either, air is squeezed from the lungs with great force, putting pressure on tiny blood vessels in the eye. The contraction of orbicularis oculi tightens up the skin around the eye; this seems to relieve some of the pressure. The more energetic the cry, the more tightly the muscle compresses, affecting the rest of the face as well. The full orbicularis oculi contraction in loud crying pulls down the brows, raises the cheeks, and may even help square off the mouth.

THE SQUARE MOUTH

The mouth of crying is square-shaped, the result of the upward pull of the sneering muscle, which squares off the upper lip and etches nasolabial folds in the cheeks, and the outward pull of risorius/platysma, which widens the mouth and stretches the lower lip. The square mouth is often framed, as here, by one long crease from nose to chin, like a tear's path.



The signature wrinkles of full orbicularis oculi contraction—smile-shaped fold (A), star wrinkles between the eye (B), and lowered brow—dominate the upper face. A single crow's foot wrinkle (C) is the precursor of more to come. Dimple (D) and bulging (E) are characteristic of contracted corrugator. Puffed cheeks and nasolabial folds (F) are caused by sneering muscle; bracket folds at mouth corner (G) by risorius/platysma.



THE ACTION OF THE MENTALIS

The mentalis is a companion to most of the faces of grief. When someone cries, the mentalis frequently acts with the mouth-stretcher, risorius/platysma. The chin-raising muscle alternately contracts and relaxes, bowing up the center of the lower lip and wrinkling the chin when it contracts (top). On either side of the raised part, the stretched lower lip goes back to being straight. The contraction of the mentalis seems to appear almost every time we're sad, whether we're crying or not.



Fifteen centuries before Columbus, this crying infant was carved in stone by an Olmec artisan in Mexico. Such naturalistic depictions of emotion are rare in non-Western art. There is a clear depiction of the upper lip, squared-off and pressed back against the face, of the oblong mouth shape, and of the contraction of mentalis, including the balling up of the chin (A). Compare with face above.



The face of a bowing baby is the focal point for Rembrandt's *Ganymede*, capturing the moment when the child-god is snatched off to Olympus by Zeus in the form of an eagle. Curiously, the expression is more vivid in the sketch (below). The dark, scrawled lines around the eyes—quick notations of the wrinkling of orbicularis oculi and corrugator—and the more open mouth with front teeth bared suggest a much stronger action than that visible in the painting. Nothing is more difficult than retaining the vitality of a sketch in a finished piece.



THE OPEN-MOUTHED CRY: ADULTS

Only rarely do adults revert to the fierce unhappy outcry that we associate so strongly with infancy. Fortunately, daily life offers few miseries intense enough to trigger such a vehement response. For most of us, only the death of a loved one or the ending of an important relationship inspire the most fundamental sorrow.

We look the same as a baby when we cry with utter anguish. We energetically vocalize our unhappiness with our mouths widened and squared, our eyes buried under the clenching mass of the upper face.

Only if the pattern is complete does the cry come across in a static, sound-

less picture. The tightly closed eyes are the most crucial element, without which the element of loud, demonstrative crying is not apparent. The mouth itself may be open and stretched or closed and stretched, depending on how upset the person is, and how inhibited they are, but the eyes are always narrowed or closed. The tighter the squint, the more intense the cry appears.

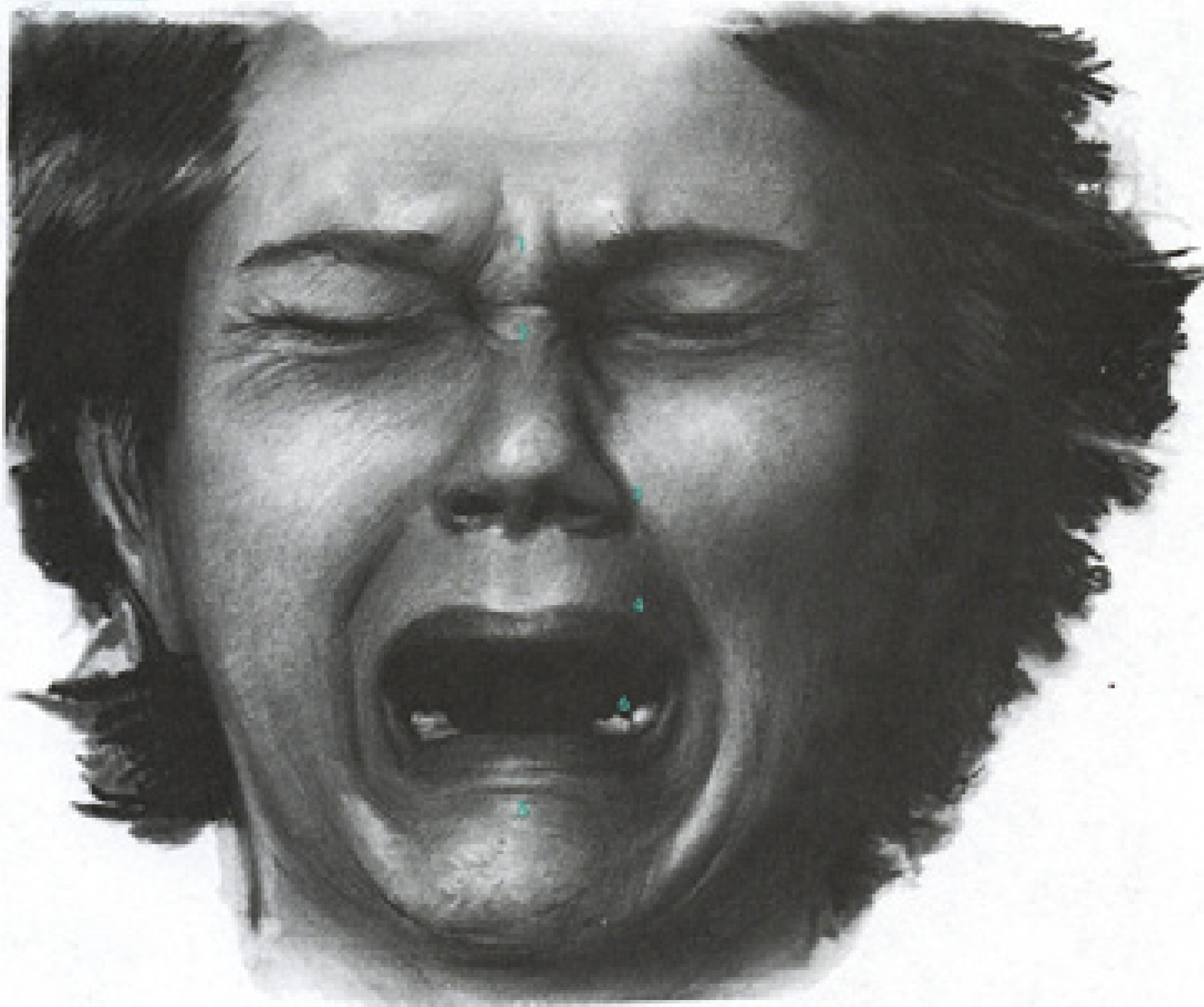
Strong Action

Crying is a lot of work, which must be part of the reason it serves so well as an emotional release. You cannot physically stretch your mouth any wider than it stretches when you cry, and the eye squeeze is nearly as strong. We

rarely put so much energy into an expression; no other state, with the exception of physical pain, puts the face under such stress. Our face reflects the tension and compression created by these actions.

Besides demonstrating the disappearance of the eye, a faithful depiction of crying renders the curving of all the surfaces of the lower half of the face. Nothing is flat or baggy; like the surface of a balloon after it's inflated, the lower face is everywhere rounded, everywhere taut. As in smiling or laughing, the mouth and its surroundings are inset by being pulled tight against the face; and the inset portion is framed by sharply rounded cheeks and thick cords alongside the chin.

CRYING



CRYING

Emotional distress triggers intense contraction of the eye and mouth muscles. Deep wrinkle patterns emerge, and a tightly stretched, hill-and-valley landscape arises.

EYES/BROW

1. Brows lowered, especially inner end; vertical wrinkling; smooth forehead.
2. Deep creases out from inner eye corner, across bridge. Crow's feet at outer corner; slight bog below.
3. Nose wings raised slightly. Cheeks tight and rounded.

MOUTH

4. Mouth wraps tightly around cylinder of teeth and jaw. Rope-like cord to both sides, but no dimpling.
5. Stretched lip pushed up in center by mentalis, roughening chin surface.
6. Lower teeth in extreme corner of mouth show owing to sideways pull on mouth corner.



An economical cartoon interpretation, suggesting the compressed eye (crow's feet), the widened square mouth, and the bracket fold beyond.

- A. Action of risorius/platysma.
- B. Action of mentalis.
- C. Action of levator labii superioris.
- D. Action of orbicularis oculi.
- E. Action of corrugator.



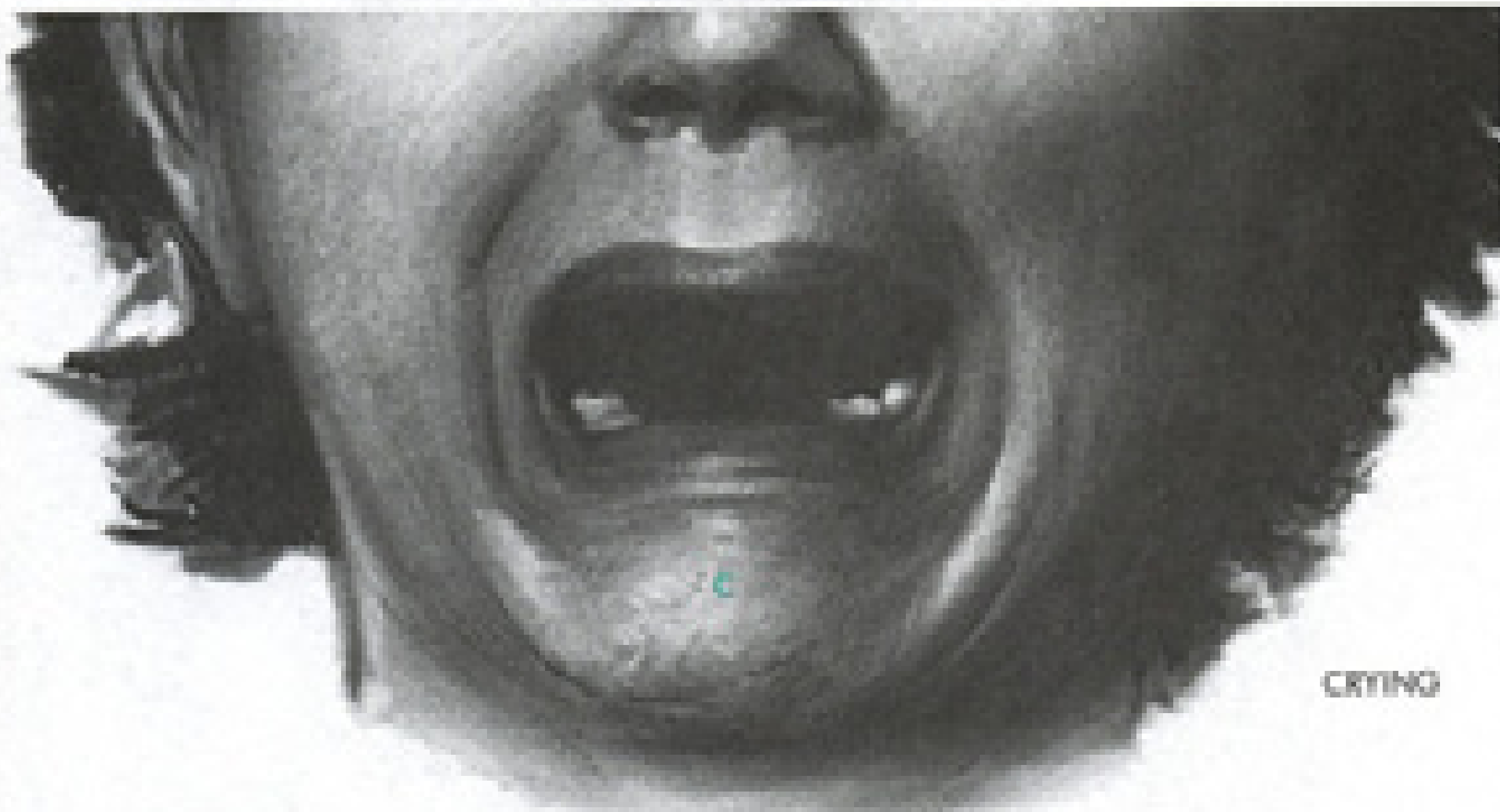
THE CRYING MOUTH



RELAXED

CRYING MOUTH VS. RELAXED MOUTH

The crying mouth is much wider than a relaxed mouth because of the sideways pull of risorius/platysma. It's rectangular in shape because of the upward pull on upper lip and sideways pull on lower. It's rimmed by stretched, thinned lips with sharp highlights and smoothed surfaces. It's more rounded in skin area above lips (note shadows on right) and framed by raised cheeks and vertical folds from nose to chin.



CRYING

CRYING MOUTH VS. LAUGHING MOUTH

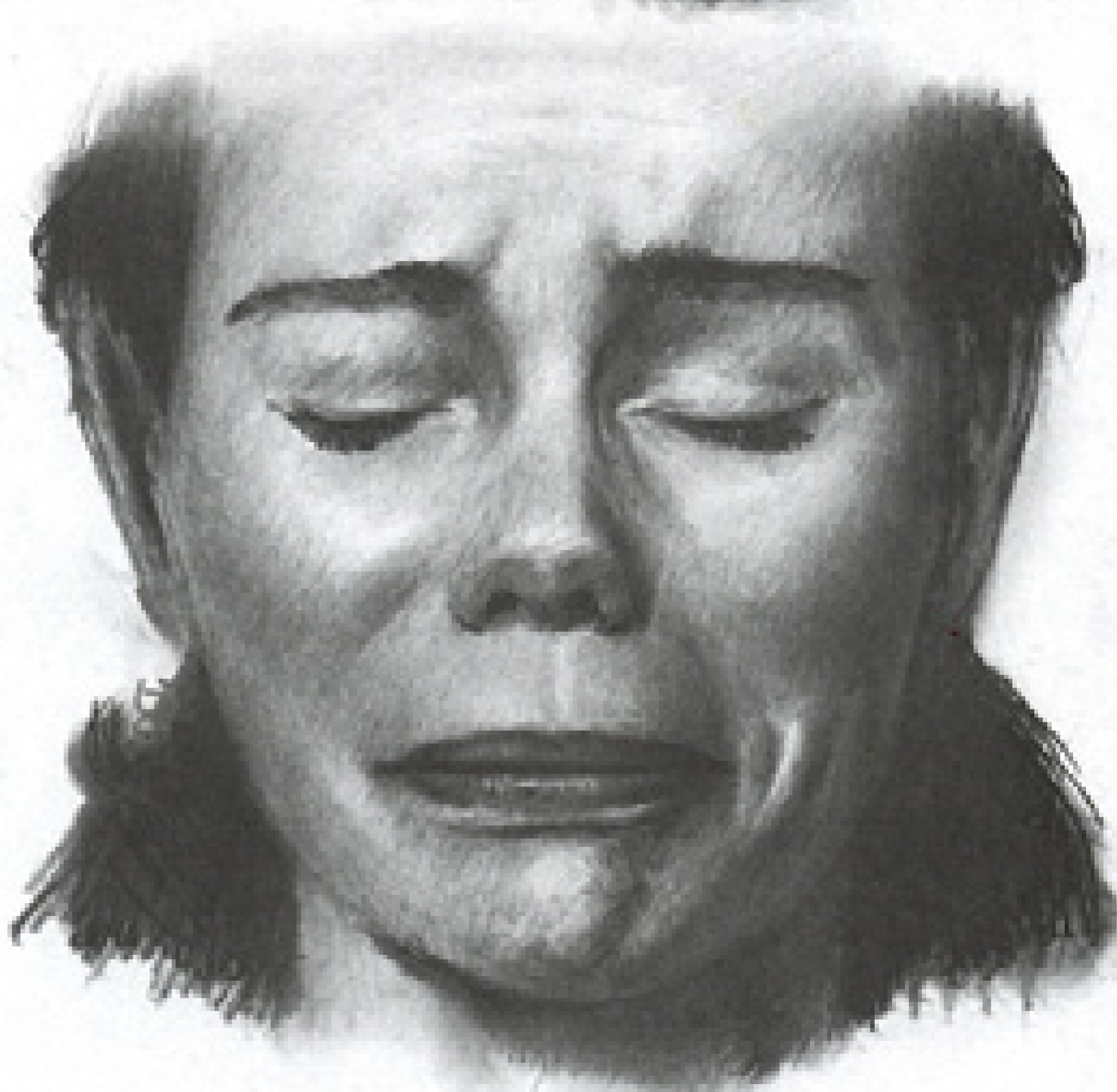
Both the crying and laughing mouths are widened with thinned, taut lips (the upper lip is nearly straight). Both are set into the face, curved tightly against the skull, and framed by long, vertical folds from nose to chin. But nasolabial fold in laughter is more angled (A), deeper in lower part versus upper in cry. Upper teeth rarely show in crying; full front row always shows in laugh. Upper lip in crying doesn't taper as much; it's nearly the same width right up to mouth corner. The key to shape difference is where laughing mouth goes up (B): crying mouth continues sideways, making opening more square. Note also that mentalis (C) never appears during laughter.



LAUGHING

CRYING: CLOSED-MOUTH

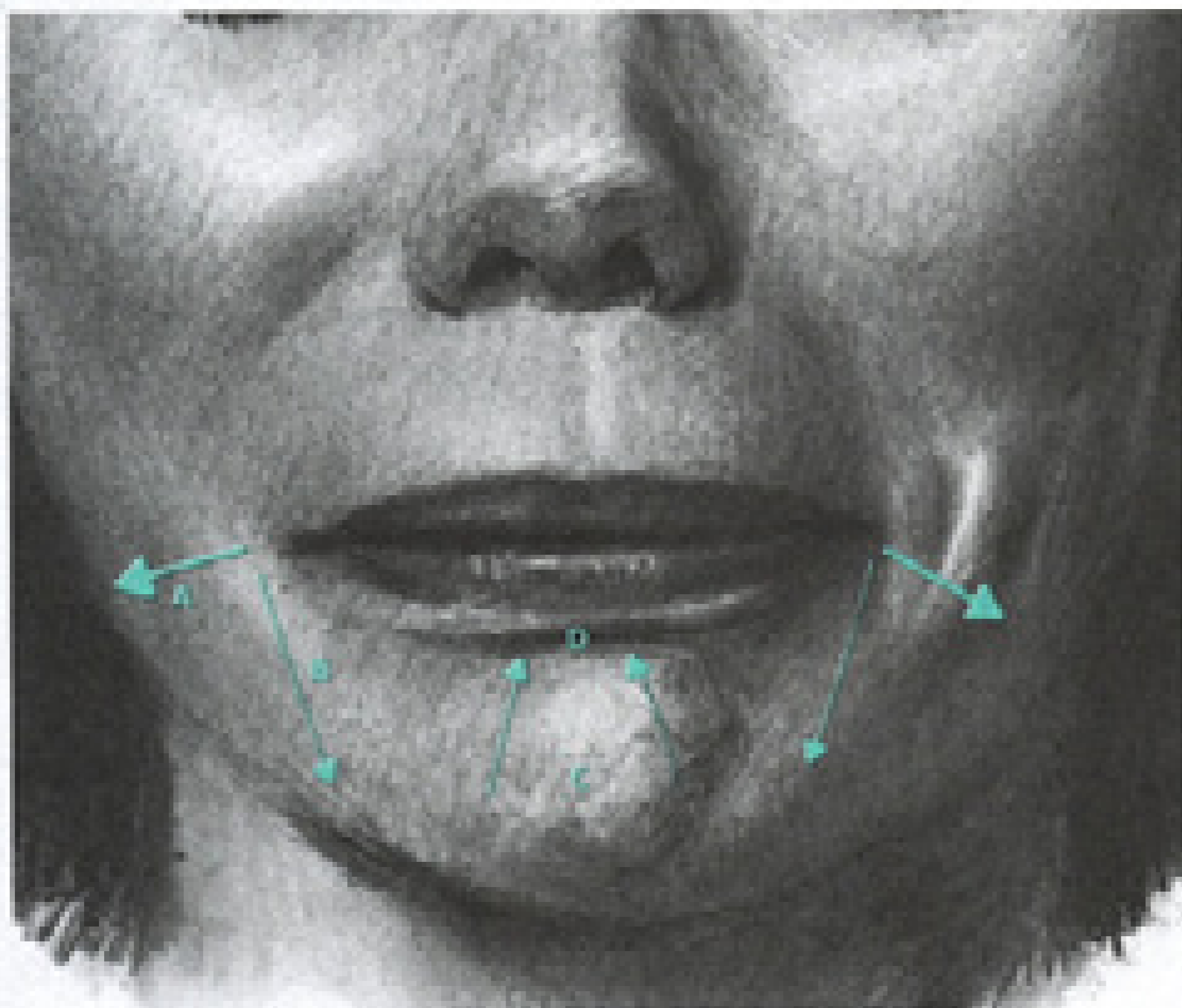
In moving from repose to grief, the face embodies the increasing distress. Crying with the mouth closed can involve as many as nine facial muscles—more than any other expression. Adding to the complexity is the activity in the brow, where the eyebrows first move upward (below), then downward (opposite, top), caught between the pull of opposing muscles. Long after the cry has faded, this conflicted brow remains.



CRYING: CLOSED-MOUTH



Sadness is the only expression in which the zygomatic minor (**A**) appears. Like the other two branches of the sneering muscle, it thickens the upper lip (middle and below); unlike them it does nothing to the nose. Its most characteristic sign is the "floating" wrinkle (**B**). In the most intense action the cheeks begin to swell, a side effect of the full contraction of the orbicularis oculi around the eye.

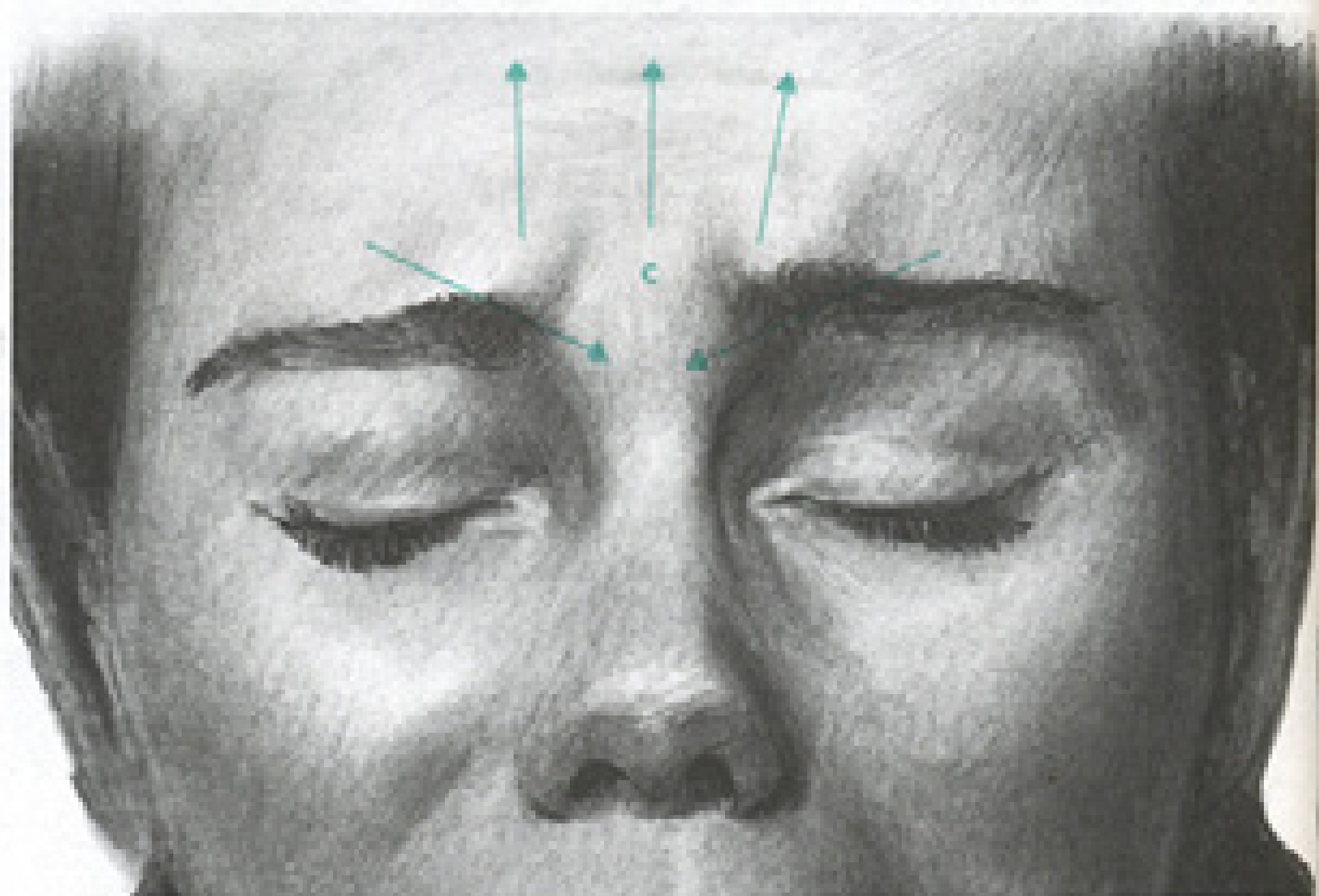


THE MOUTH AND CHIN

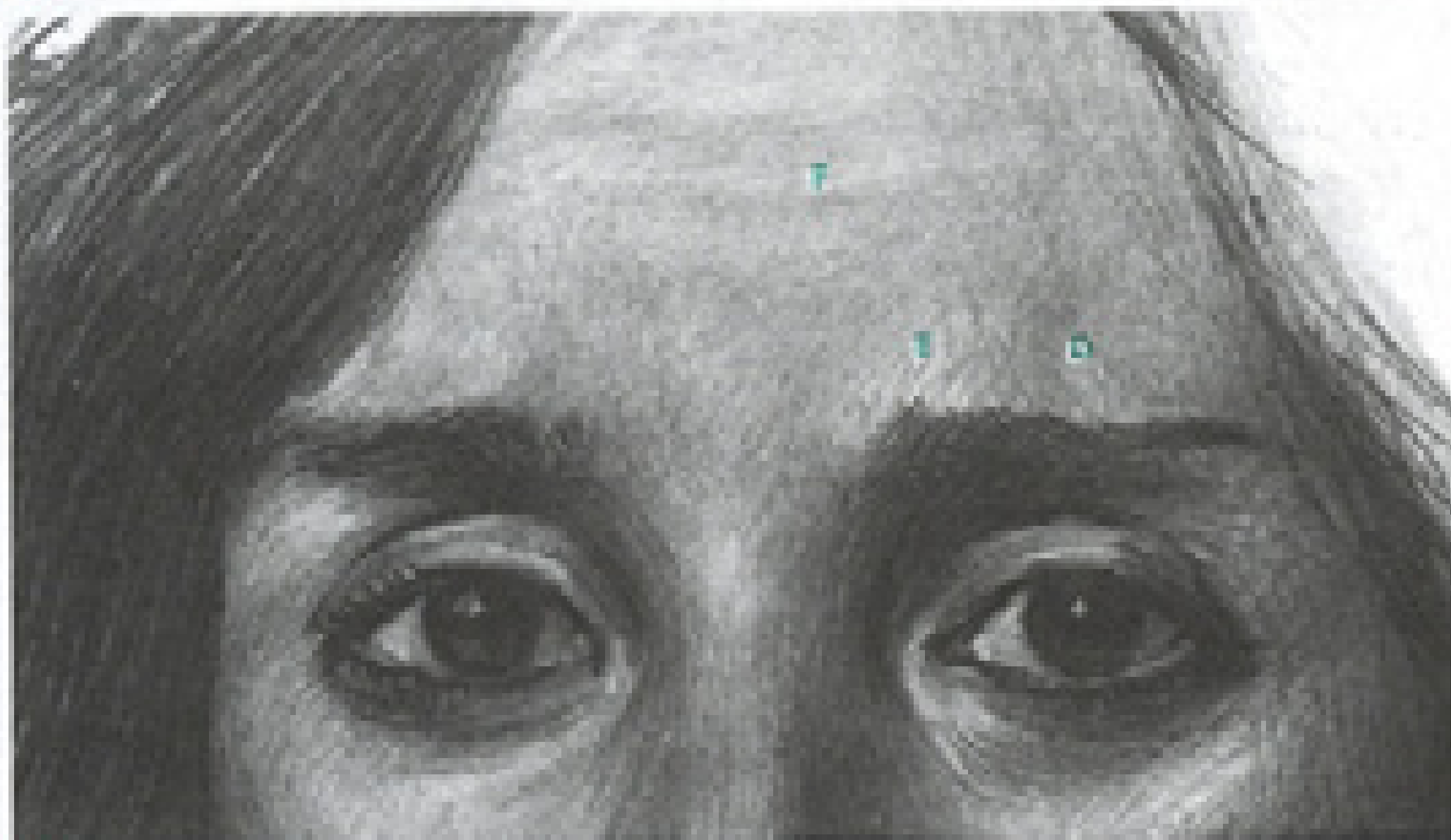
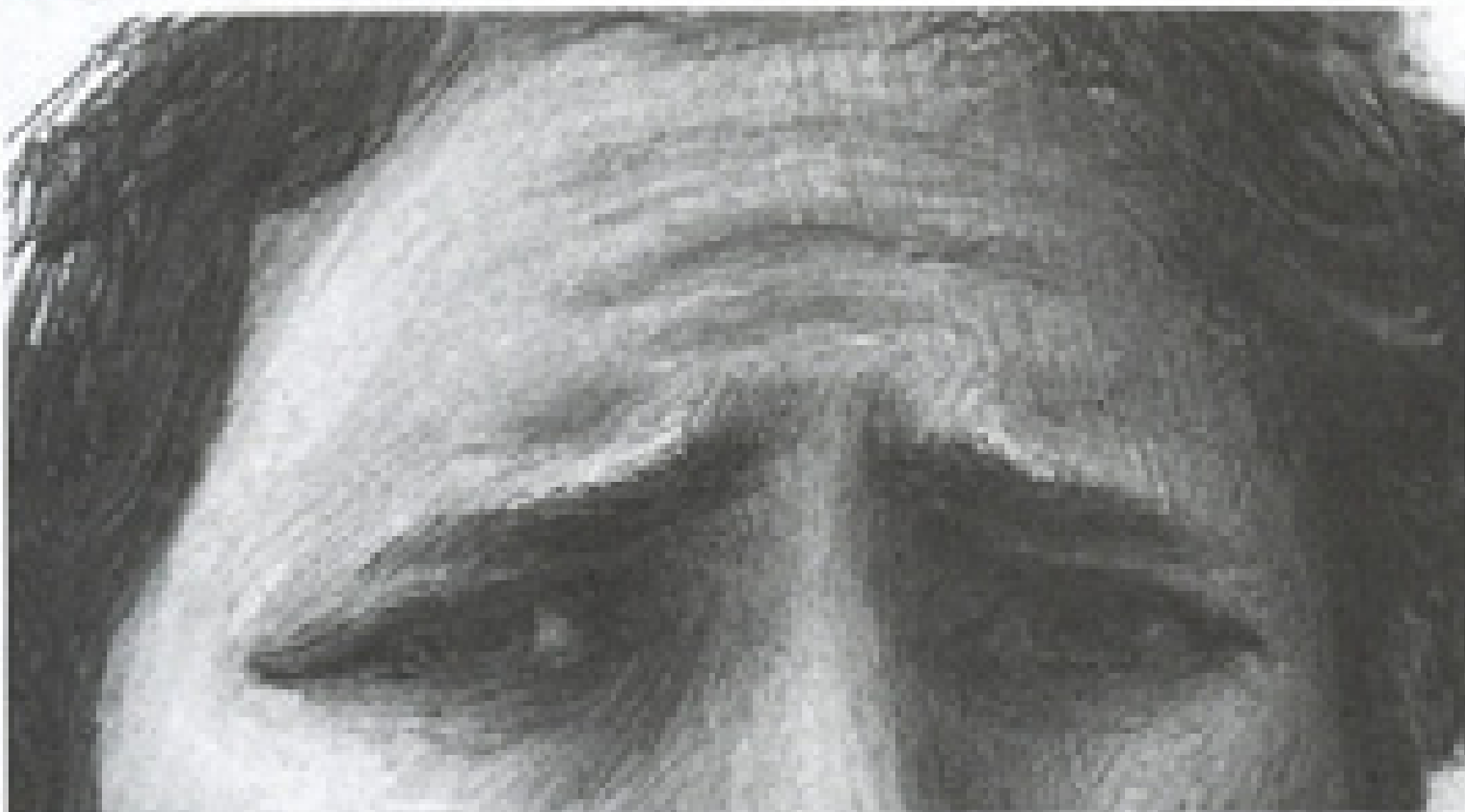
Three interacting forces stretch and compress the mouth. The strongest action is that of the risorius/platysma (**A**), making the lips taut as it widens the mouth. The hook-shaped cords beside the mouth corner are the signature wrinkle of the triangularis (**B**), but its downward pull isn't as strong as the pull outward. The action of the mentalis (**C**) balls up the chin (creating the sharp crease [**D**]) and pushes the lips together. Compressed lips do not bow upward (as happens in open-mouthed cry), but lower lip begins to turn outward instead.

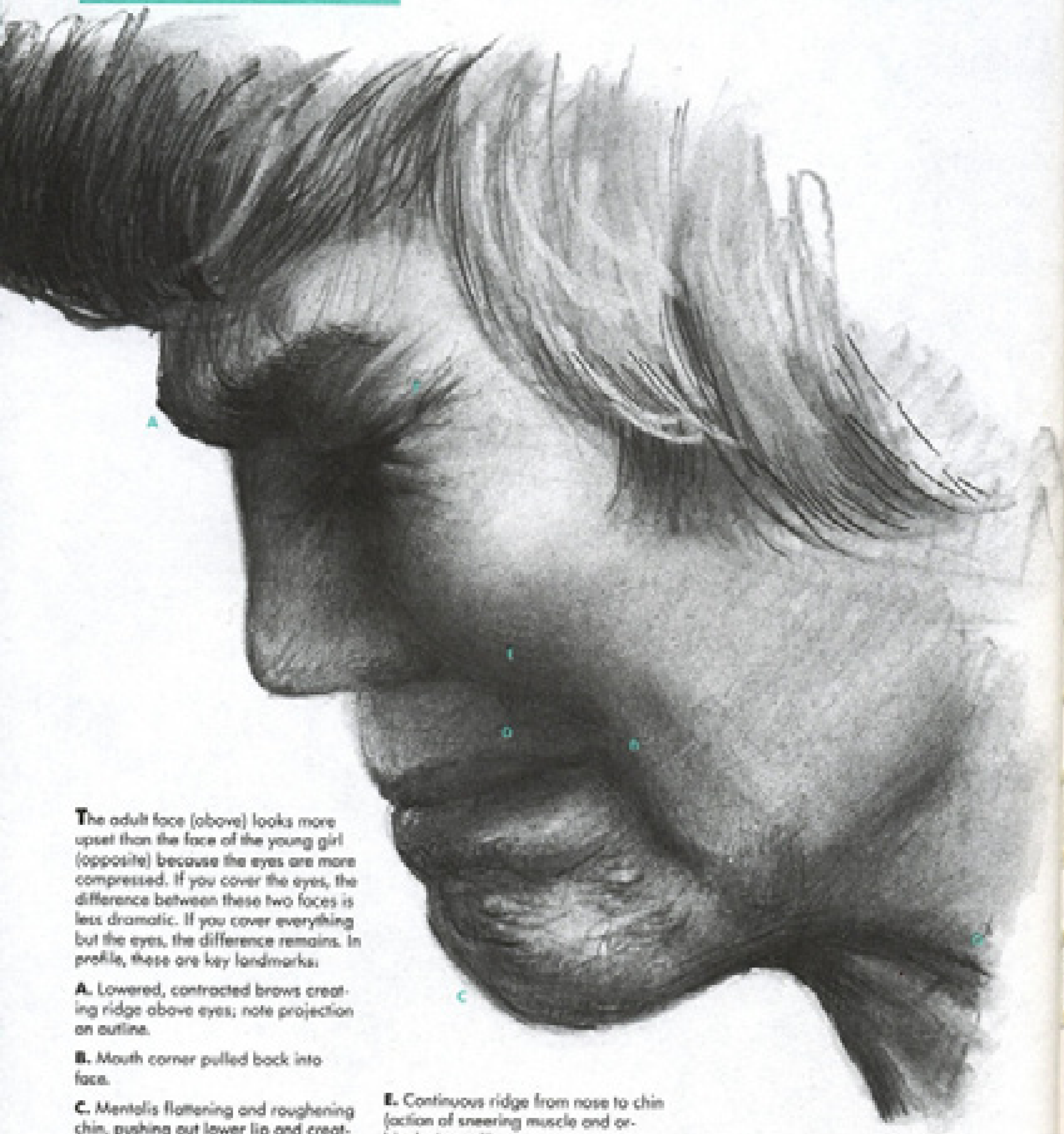
THE BROW OF GRIEF

Few forms are more suggestive of a particular emotion than the brow of grief is of sadness. The stretched mouth and clenched eye do not by themselves lend the face an unambiguous air of distress. The brow of grief does. The brow of grief is an action of restraint. In the most intense cry, the orbicularis oculi (A) is fully contracted, an action that triggers the corrugator (B), the frowning muscle. When distress is less intense (bottom), the pull downward on the brow is resisted by the middle fibers of frontalis (C), creating horizontal middle-brow wrinkles and pulling up on the inner end of the eyebrow. The relaxed eyebrow never assumes this form. Vertical creases and dimples show that the corrugator is still active.



VARIATIONS ON THE BROW OF GRIEF





The adult face (above) looks more upset than the face of the young girl (opposite) because the eyes are more compressed. If you cover the eyes, the difference between these two faces is less dramatic. If you cover everything but the eyes, the difference remains. In profile, these are key landmarks:

A. Lowered, contracted brows creating ridge above eyes; note projection on outline.

B. Mouth corner pulled back into face.

C. Mentalis flattening and roughening chin, pushing out lower lip and creating sharp wrinkle under lip.

D. Pulling up of outer part of upper lip (action of sneering muscle and orbicularis oculi).

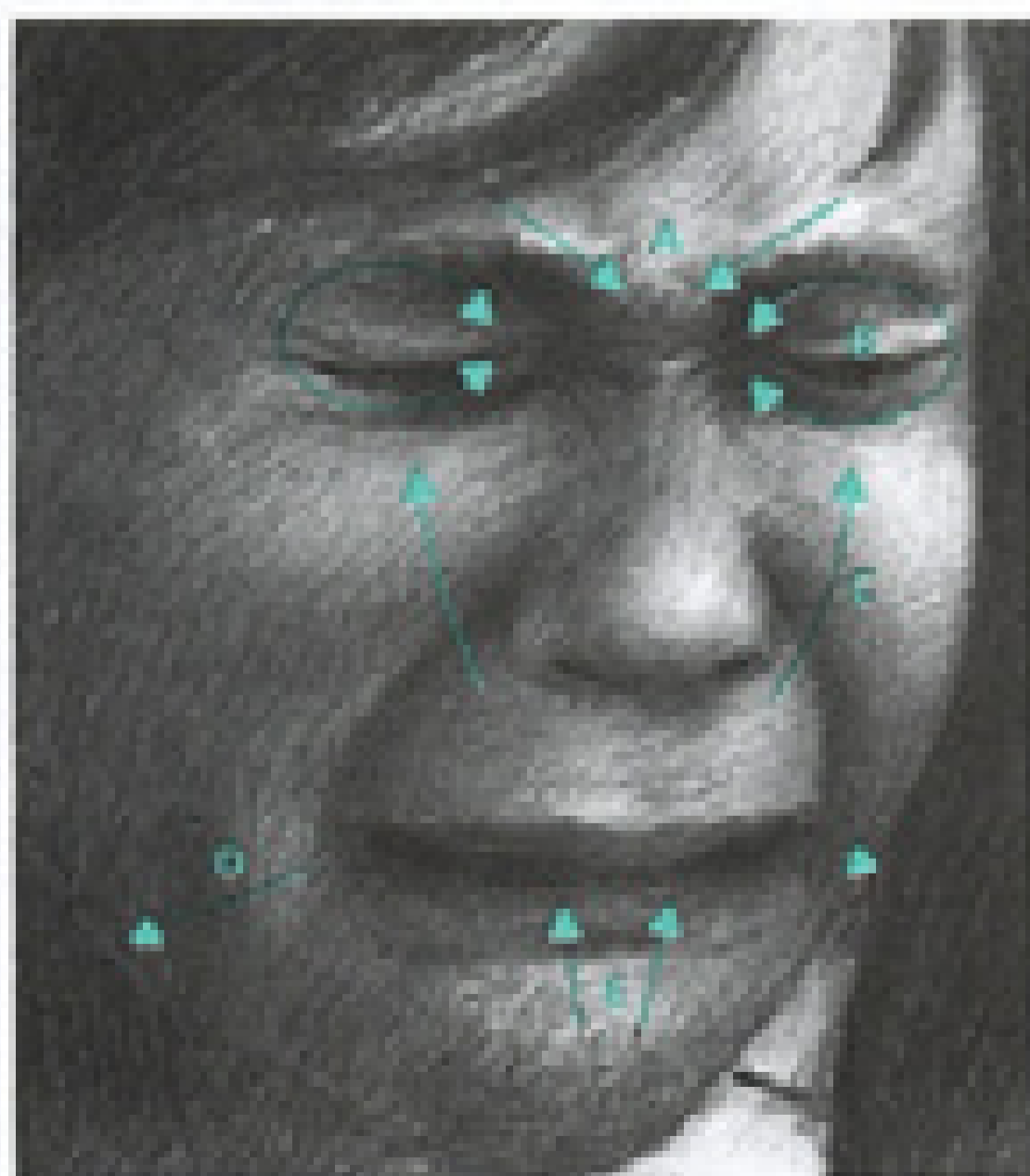
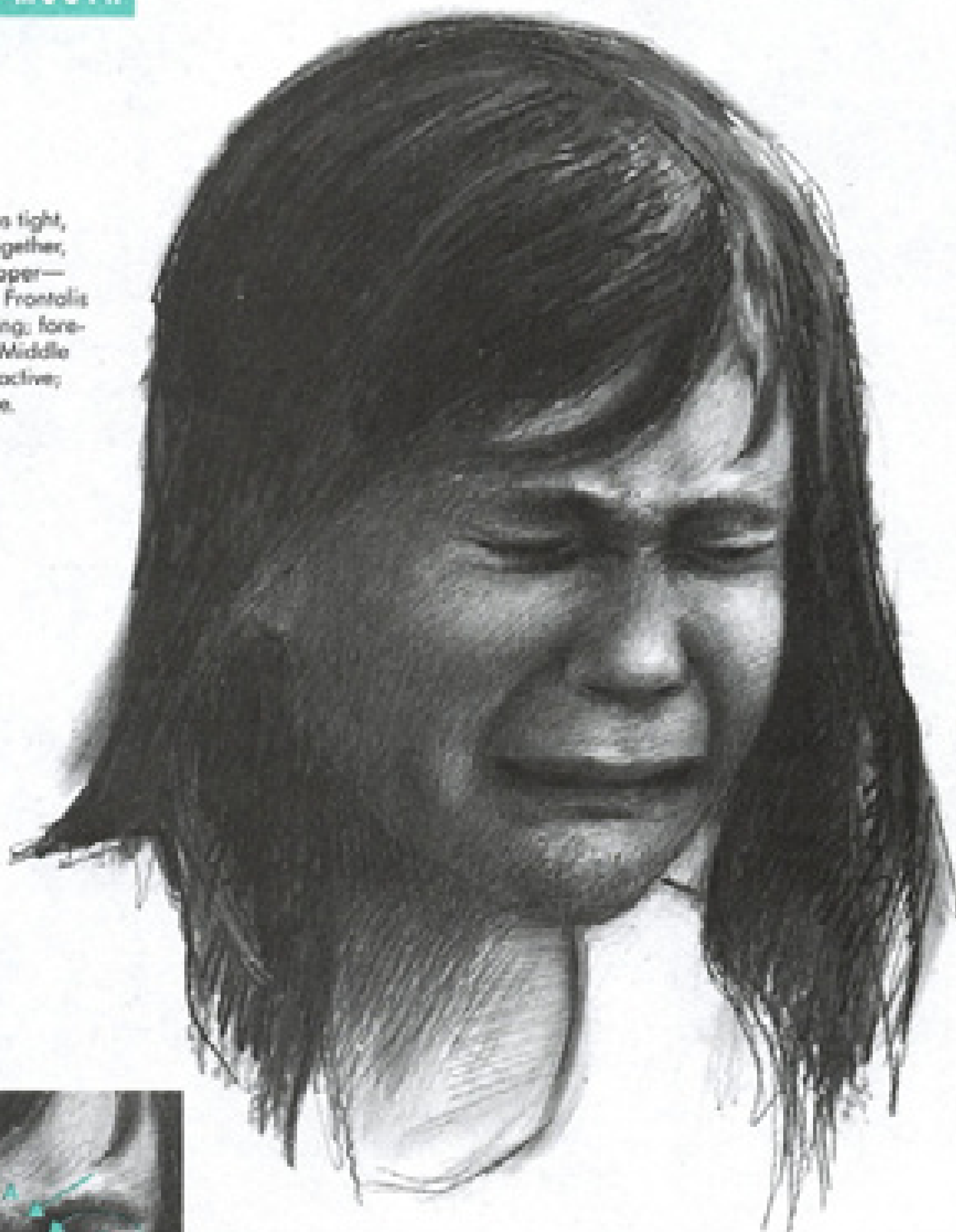
E. Continuous ridge from nose to chin (action of sneering muscle and orbicularis oculi).

F. Intense wrinkling around eye.

G. Strands of platysma standing out on neck.

CRYING: CLOSED-MOUTH

Lips appear narrow as well as tight, turned inward and pressed together, with lower lip tucked under upper—action often part of weeping. Frontalis is not active in full-blown crying; forehead above brow is smooth. Middle branch of sneering muscle is active; crease is deep alongside nose.



- A. Action of corrugator.
- B. Action of orbicularis oculi.
- C. Action of levator labii superioris.
- D. Action of risorius/platysma.
- E. Action of mentalis.

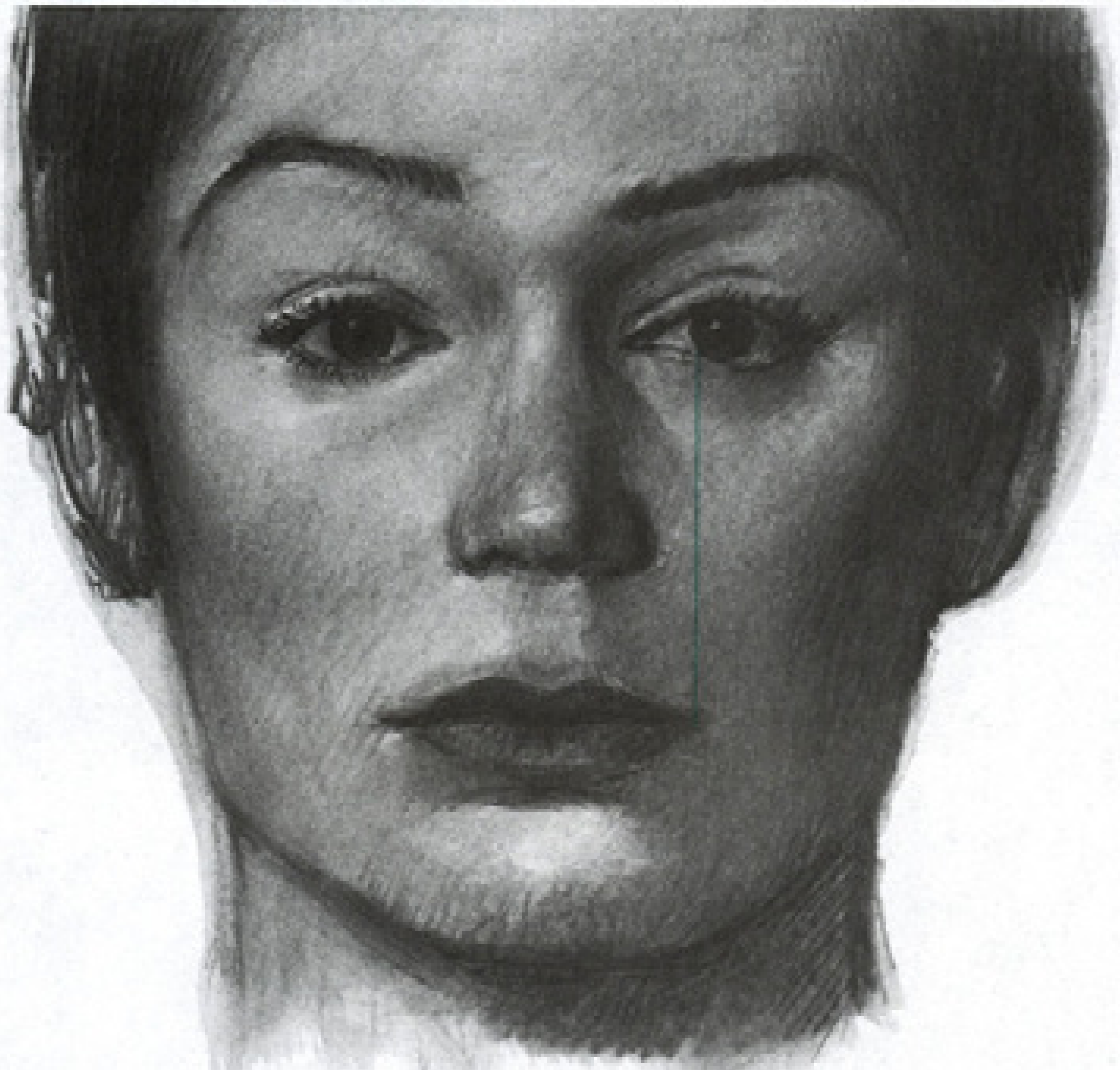
SADNESS: ON THE VERGE OF TEARS

Though almost seventy years of age separate these two individuals (below), their expressions are strikingly similar. Both seem on the verge of tears. The primal expressions, including sadness, do not vary throughout life.

When all lower teeth show, it's a bad sign. It's also a sign of trouble when the mouth is open and the inner outline, both above and below, is so straight. With such a young face, there's little creasing on the brow, but the faint bumps between the eyebrows, and the oblique direction of their line, indicate clearly the brows of grief. Note the lifting of the lower lid and slight pouch underneath, strong pull of zygomatic minor, creating mid-way wrinkle (A) and puffing the cheeks, and the pull of risorius/platysma (B), stretching the mouth.



- A. Bunching of corrugator, creating crescent-shaped mound around inner eyebrow.
- B. Oblique skin fold across upper lid.
- C. Mouth stretched sideways, exposing lower teeth.
- D. Flattened, rumped chin owing to mentalis.



NEUTRAL FACE

The drawings on these two pages seem like a sequence with the last picture missing—the one where she bursts into tears. Unlike the neutral face above, we tend to see the face with so much activity (opposite) as leading up to something. In the final stage, the weeping face, the eyes will tightly shut.

THE EYES AND BROW

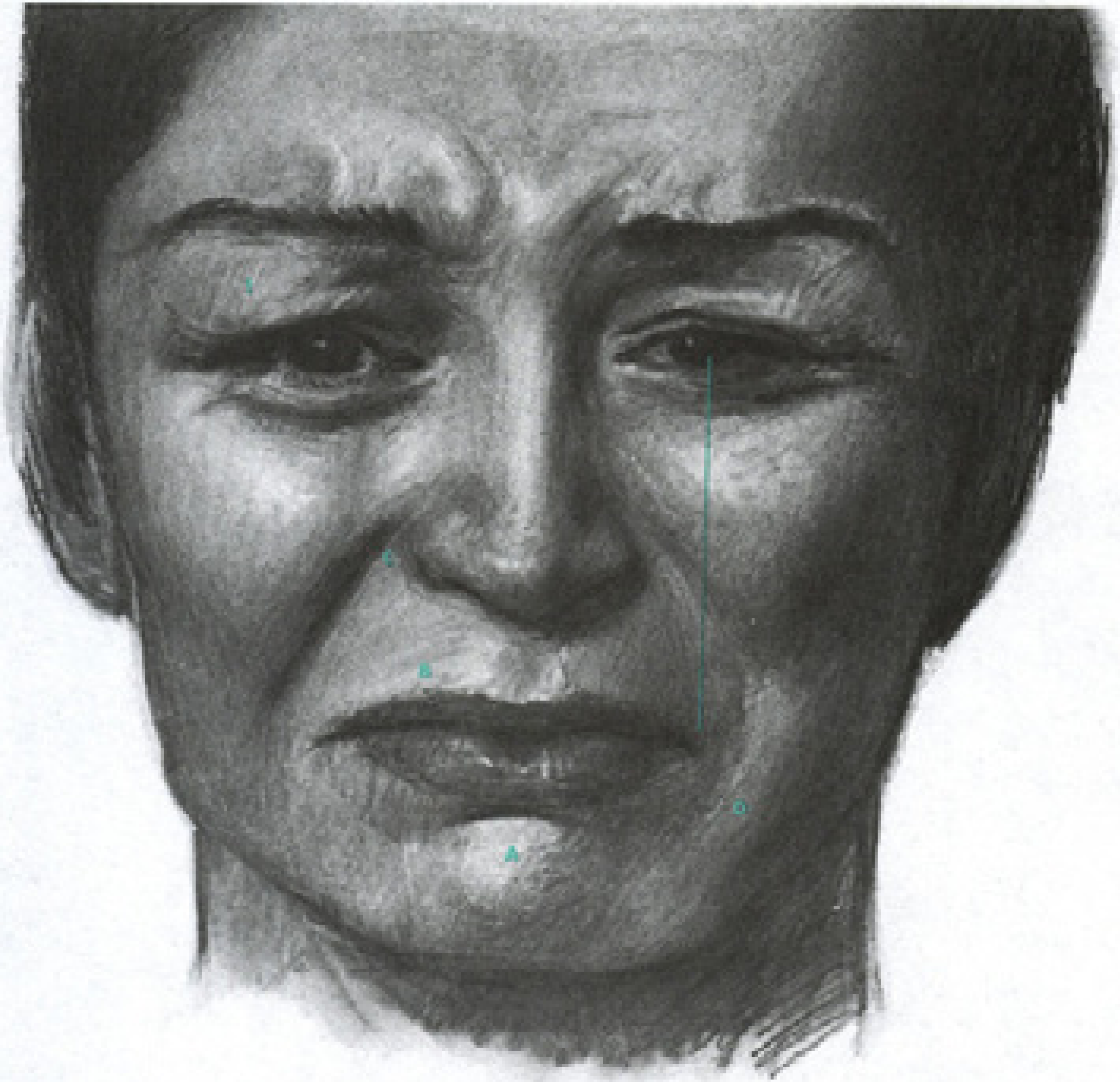
Sad eyes look out of the world through partly shuttered lids. The orbicularis oculi is partially contracted,



SADNESS PATTERN

creating crow's feet, raised lower lids (compare sad iris shape with that of relaxed eye above), and fold under the eye. Above the eye, the drag of skin upward and toward the middle creates a new skin fold (I), cutting across the upper lid. It hides part of the lid and pushes downward on it, narrowing the eye from above.

The basic sad eye pattern is oblique; brows, upper lid fold, slant at similar angles. Frontalis (green) is under entire forehead, but only central fibers (darkest tone) contract in sadness. At no other time does its central part contract alone.



THE MOUTH AND CHEEKS

The mouth is the most transitional element. If it was fully stretched, as in crying, the lips would be thinner and more uniform. In simple sadness, the mouth is not stretched at all. Mentalis and triangularis are active, as is the sneering muscle. The "sneer" element here is strong; the nose is lifted up by the wings, the crease by the nose is deep. Note also the puffing of the cheeks. Vertical line indicates how relationship of eye to mouth corner changes as mouth widens.

- A. Balled up chin, crease above due to mentalis
- B. Squared upper lip
- C. Deep nasolabial fold
- D. Wrinkles, down corner of triangularis

SADNESS: TIGHT-LIPPED

Nearly every expression is at times opposed by the muscle of the lips, the orbicularis oris. Its action, tight compression of the lips, is likely both an unconscious effort of restraint and a sheer physical outlet. In suppressed sadness, this action doesn't prevent the other lower-face muscles of grief from contracting, but it partly overcomes their effects—a suppressed expression is often just as expressive as the unrestrained look.

TIGHT-LIPPED MOUTHS COMPARED

In the angry mouth (top), the contraction of mentalis and triangularis is the strongest action, creating the upside-down smile shape. Orbicularis oris is only partly contracted; the lips are not fully compressed.

In the suppressed smile (middle), the orbicularis oris is again only moderately contracted, but this is strong enough to prevent the zygomatic major, the smiling muscle, from lifting the mouth corner. Mentalis aids in compressing the lips (A); triangularis aids in holding the mouth corner down (B).

In the suppressed sob (bottom), the mouth is similar to that of anger with two key differences: it's stretched sideways by risorius/platysma, and the compression of the orbicularis oris is more intense—the lips are straightened and thinned.



ANGER



SMILE



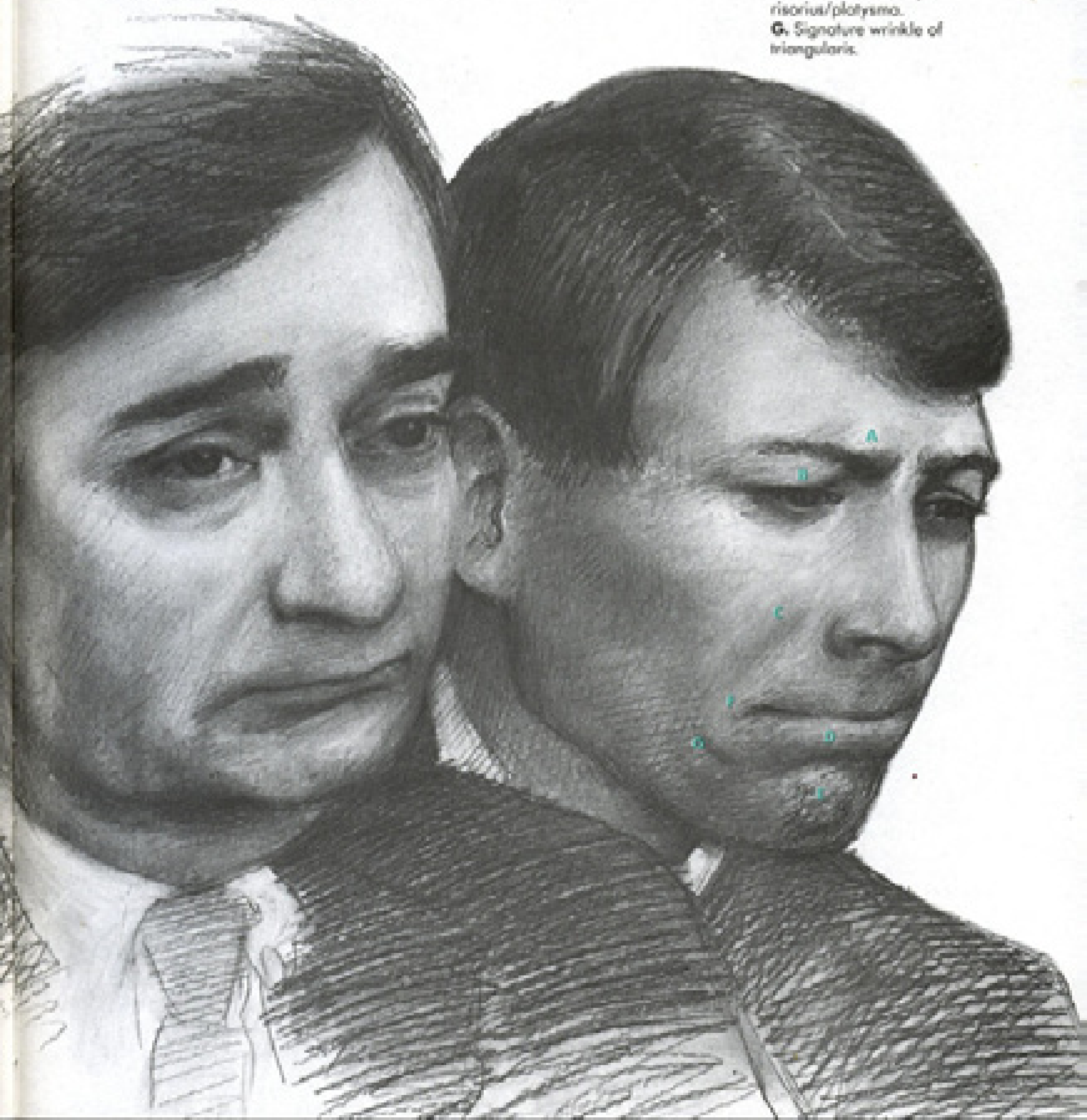
SADNESS



SADNESS: TIGHT-LIPPED

These two men are expressing their sadness quite differently. The sadness in the face of the man on the left is quite subtle. Just enough of the grief pattern is visible in his eyebrows and eyes to suggest his distress; depending on how you see his eyes, his mouth looks either sad or neutral—the cues are ambiguous. The cues are much clearer on the face of the other man, and his look is that of someone whose grief is barely under control.

- A.** Eyebrows with kink in inner third.
- B.** Oblique across-the-lid fold.
- C.** "Floating" crease of zygomatic minor.
- D.** Compression of orbicularis oris thins upper lip, bulges out lower.
- E.** Action of mentalis.
- F.** Mouth widened by risorius/platysma.
- G.** Signature wrinkle of triangularis.



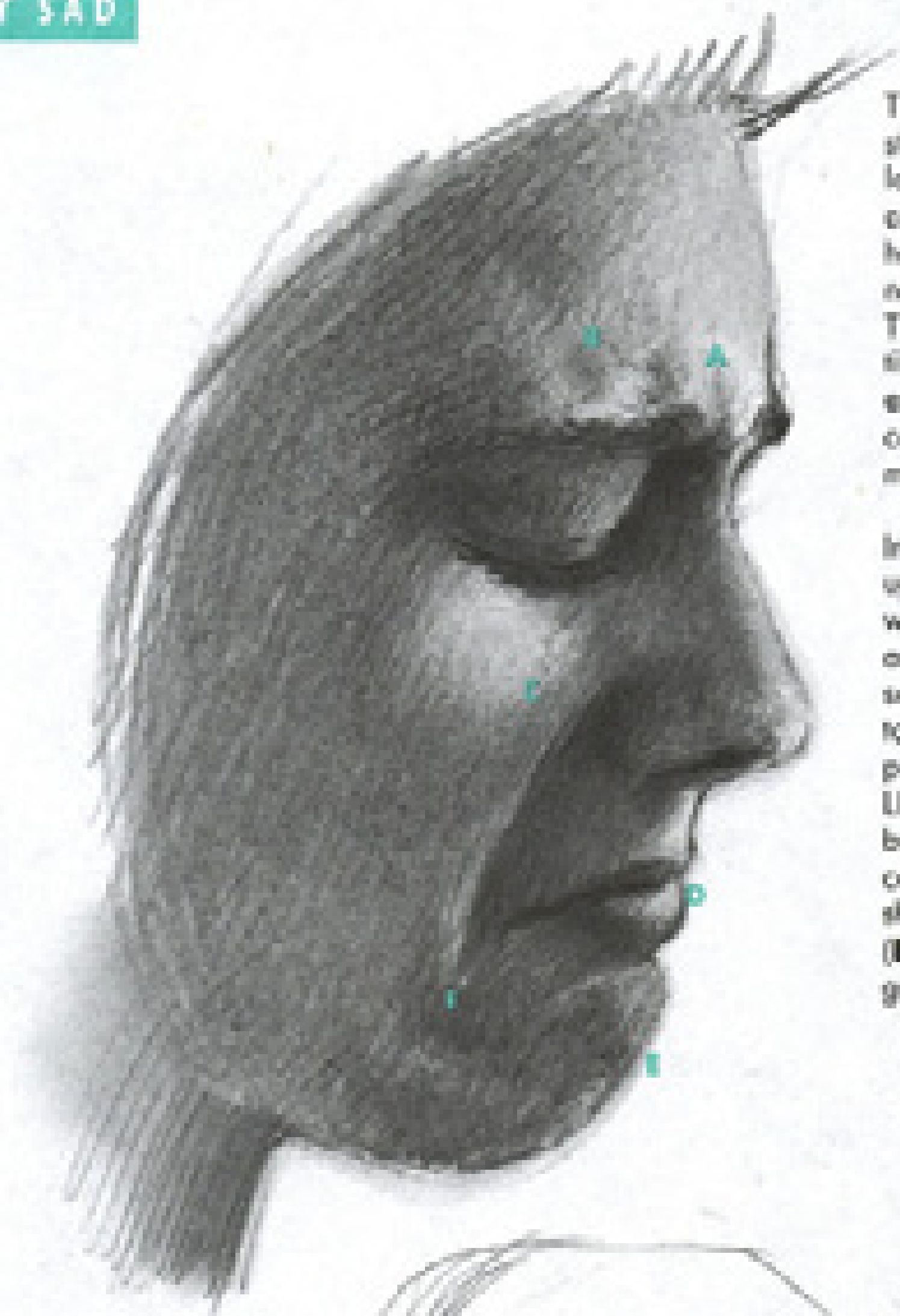


Every person performs learned actions differently; everyone's instinctive actions are the same. Fighting back tears will invariably trigger the muscles that bulge and roughen the chin and the muscle that stretches the lips. Above are several faces where this action is in progress, and the same pattern is strikingly repeated.

Presidential campaigns are times when feelings run high. These four people are staff members watching their candidate give an emotional speech withdrawing from the campaign. They're not happy about it. On each successive face (clockwise from lower right) the lip-pressing conflict of distress and restraint is progressively more intense. The mouth at (A) is being stretched and compressed; the pattern below her mouth (raised island of mentalis, with sausage-like bulge above) is precisely repeated at (B). At (C) and (D), crease and puffed cheek of zygomatic minor are barely visible. At (E), he's "biting his lip" with so much pressure that it has curled completely under itself. Little curled bulge of triangularis (F) is repeated at a similar spot on each face. (But does the woman on the right look sad because she's surrounded by sad people or because of some cue we see in her face?)

SADNESS: SIMPLY SAD

When crying fades, the muscles of a sad face gradually relax. First to go is the mouth-stretching risorius/platysma, then the eye-squeezing orbicularis oculi. As the latter goes slack, the cheeks lose their fullness and the lower lid its tension. What lingers is the pout and the grieving brow. Eventually, even the pout relaxes, leaving the twisted eyebrow as the only sign of the last stage of grief. The sad faces on this page have unhappy-looking brows and strong pouts.

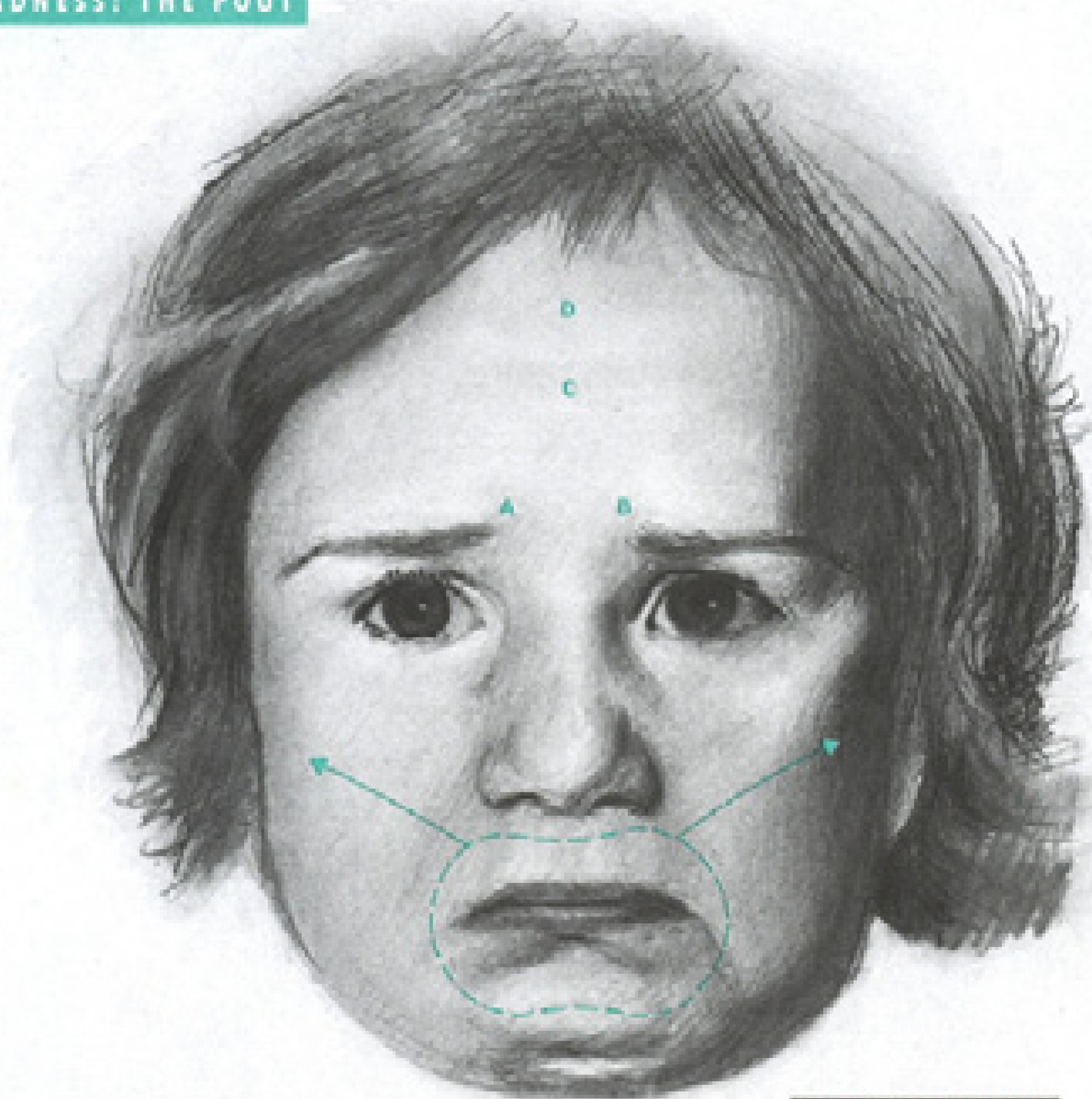


Though her pout is quite strong, this woman (top) looks so terribly sad because of her brow. Cover her brow, and the effect is nowhere near as intense. The downcast eyes and occlusive mouth complement the expression on the brow but cannot replace it; the brow makes us see them as sad.

Inner eyebrow end bunched up by corrugator, bent upward by frontalis; key folds at (A) and (B). Deep nasolabial fold (C) mostly due to zygomatic minor. Lip pushed up in middle (D), LBL pulled down in corner by mentalis-triangularis combination. Chin profile shows action of mentalis (E). Curved folds of triangularis (F).

A fine face of sadness, though not the one the model was wearing; this is an "accidental" pout. All the right cues are present: upturned eyebrows, oblique upper eyelids, lower lip with sharp, straight fold underneath; all, according to the student artist, were unintentional. "Mistakes" can sometimes lead to interesting results.





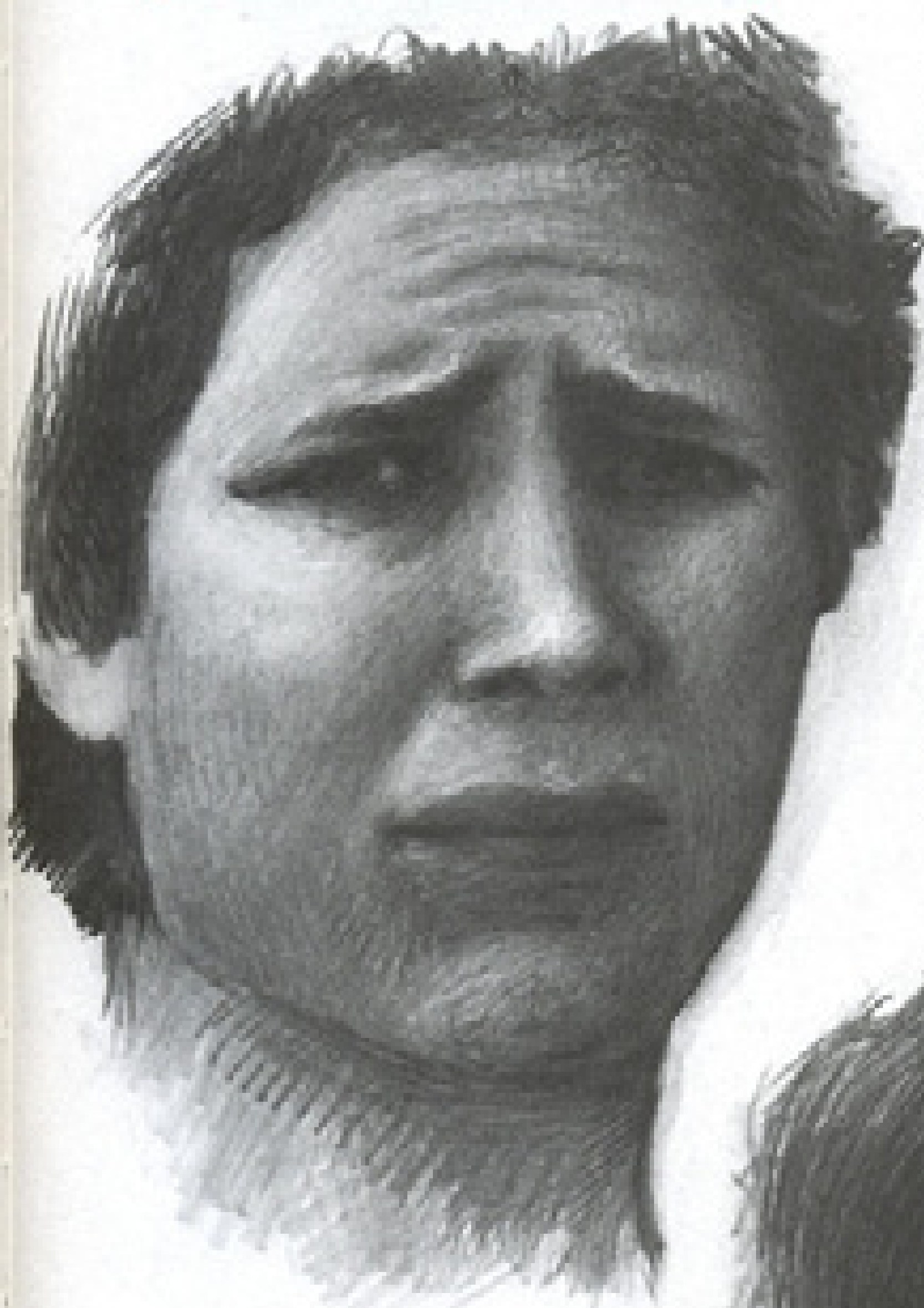
Much is expressed in the face of this sad little girl, but little is actually visible. Sadness can be a powerful presence, even when the signs are so subtle. Surprisingly, the eyes in isolation (bottom) are not sad but appear sad beneath the kinked brow (top). Little creasing is visible on so young a face, but soft darkening at (A) and (B) is spot where frown lines will probably appear when she's older; darkening at (C) and (D) is beginning of worry lines.



ACTION OF THE POUT

In the pout, center section of upper lip and LBL is unnaturally long, and drops off quickly at corners. Upper lip is an even width across. Shape's due to pull of zygomatic minor (arrows) on rim of orbicularis oris (circle), changing upper lip indirectly. Lower lip is slightly thinned. "Platform" underneath sharply defined, with deep, curved middle crease, all due to mentalis.

SADNESS: UPPER FACE ONLY



Of all the expressions, sadness requires the fewest movements to suggest. The least twist of the brow in an otherwise relaxed face will do, even without the accompaniment of wrinkles in forehead or changes in eye. But when an expression is so subtle, the message it carries is altered: we sense an ongoing mood rather than a moment of crisis. This stage of sadness—the look of melancholy, resting entirely in upper face—is most often portrayed by artists.

The action (left) is in the top half of the face, though at first glance it seems otherwise. Isolated from the brow, the mouth has no particular expression (right). Only in the face as a whole do we notice the upper-lip shape and the crease in the cheek, which we interpret as part of the sad look. With facial expression, it's important to know what leads and what follows.



Mouth alone appears neutral; action of zygomatic minor may be present but is so slight as to be debatable.

Her brows (right) make the rest of her face look sad. Emphasizing details—the platform under the lips, darkness under the eyes—suggest activity in otherwise neutral features. Mouth alone (below) appears neutral; dark platform beneath suggests pout. Faint, horizontal middle-brow folds (A). Dimple appears where corrugator attaches to skin; kink in brow begins at that point (B). Slight change in value defines bulge at inner brow end (C); no vertical crease in this slight action.



SADNESS AND THE ART OF PORTRAITURE

Because the expression of sadness can be so slight, it crosses that imaginary line that separates expressions of crises and extremity from those that seem more commonplace, more part of a long-term mood. Sadness would not seem out of place in a formal portrait the way fear or surprise might.

It would certainly have a compelling effect. Part of the fascination of a portrait is our interest in drawing conclusions from the face about personality of the sitter. This does not happen if an extreme expression is portrayed, as we often use intense expressions as temporary events, in a sense masking the person beneath. With slight sadness, we feel the personality lies much closer to the surface. (Even a perfectly neutral, relaxed face will inspire all sorts of conjecture about the personality of the subject. The artist has limited input about the form such conjecture might take; with no expression visible, a face becomes a blank slate for the observer to project on: compassion, anger, intelligence, passivity—whatever mood the observer might be feeling at the time.)

SADNESS: EXAMPLES FROM ART

Extreme expressions are responses to extreme events. Passionate faces full of anguish or anger appear in narrative, action paintings. Portraits, focusing as they usually do on individuals in a neutral setting, suggest a quieter expression. A touch of melancholy hovers over all the following faces. It is an expression that seems at home in a portrait, suggesting the course of thought of someone left to oneself, to one's own sad musings.



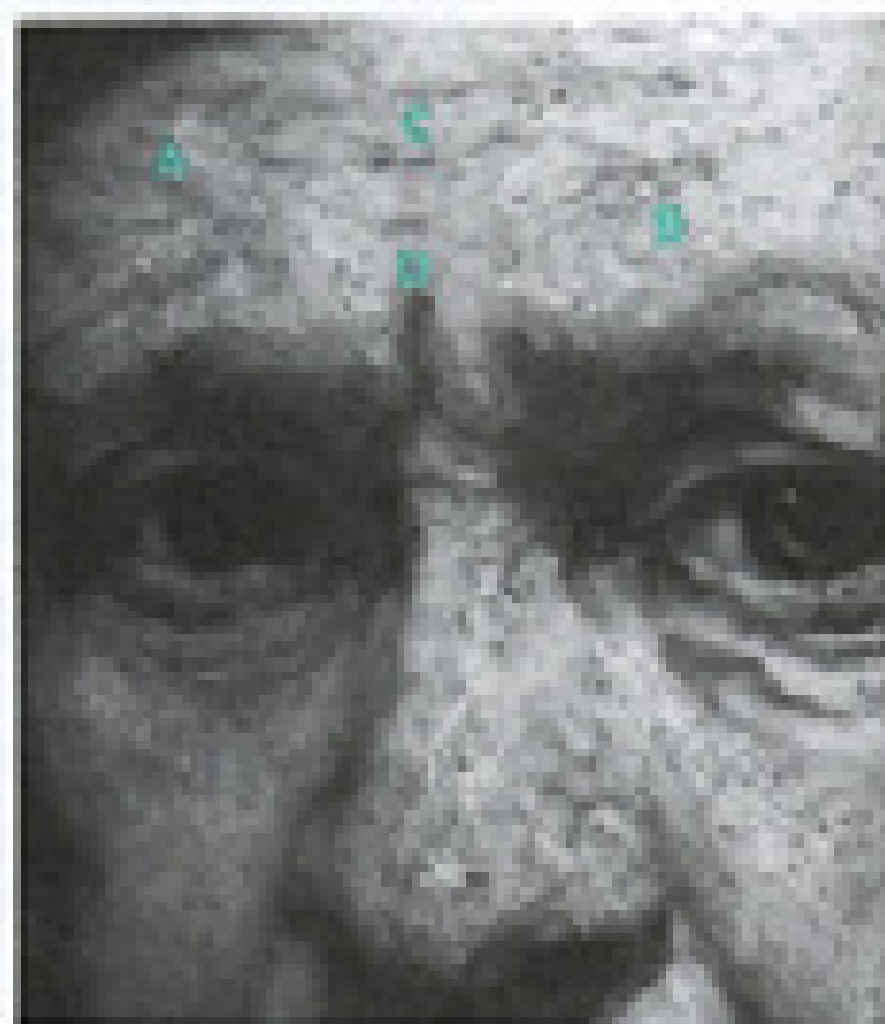
When do we cross the borderline from "slightly sad" to "neutral"? This portrait by Thomas Eakins is on the margin between the two and is capable of being viewed either way, depending on who is doing the viewing and in what particular mood the viewer is. Many of Eakins's portraits have a similar air of vague, undefined distress about them—part of the reason we find them so fascinating (and part of the reason he was not a sought-after portrait painter). Here the puzzle revolves, as usual, around the brow and mouth—is the brow on the right up-turned; is the mouth slightly pressed upward from below?

SADNESS: EXAMPLES FROM ART



Mary Cassatt's portrait of a little girl depicts a very distinct pout. And yet the mouth has very little to do with it. The mouth is ambiguous—the lip line is wrong for a pout (it doesn't rise in the middle); the under-the-lip detail is more suggestive. What clinches the expression is the eye on the right and its brow. Looked at by itself, the eye and brow appear sad—the brow is upturned, the upper lid oblique. The other eye and brow are neutral (the brow is borderline); but in this case, one active side is enough.

How clearly the image of the elderly Rembrandt, weighed down (we suppose) by his domestic and financial difficulties, is embedded in our minds. This is one of the sadder of the late self-portraits; I find something terribly affecting about the tired, sagging lines under his eyes. The movements and wrinkles of the brow of grief are painted with a knowing eye.



- A.** Shallow, diagonal crease due to corrugator.
- B.** Dimple at corrugator skin insertion.
- C.** Horizontal middle-brow folds.
- D.** Frown lines.



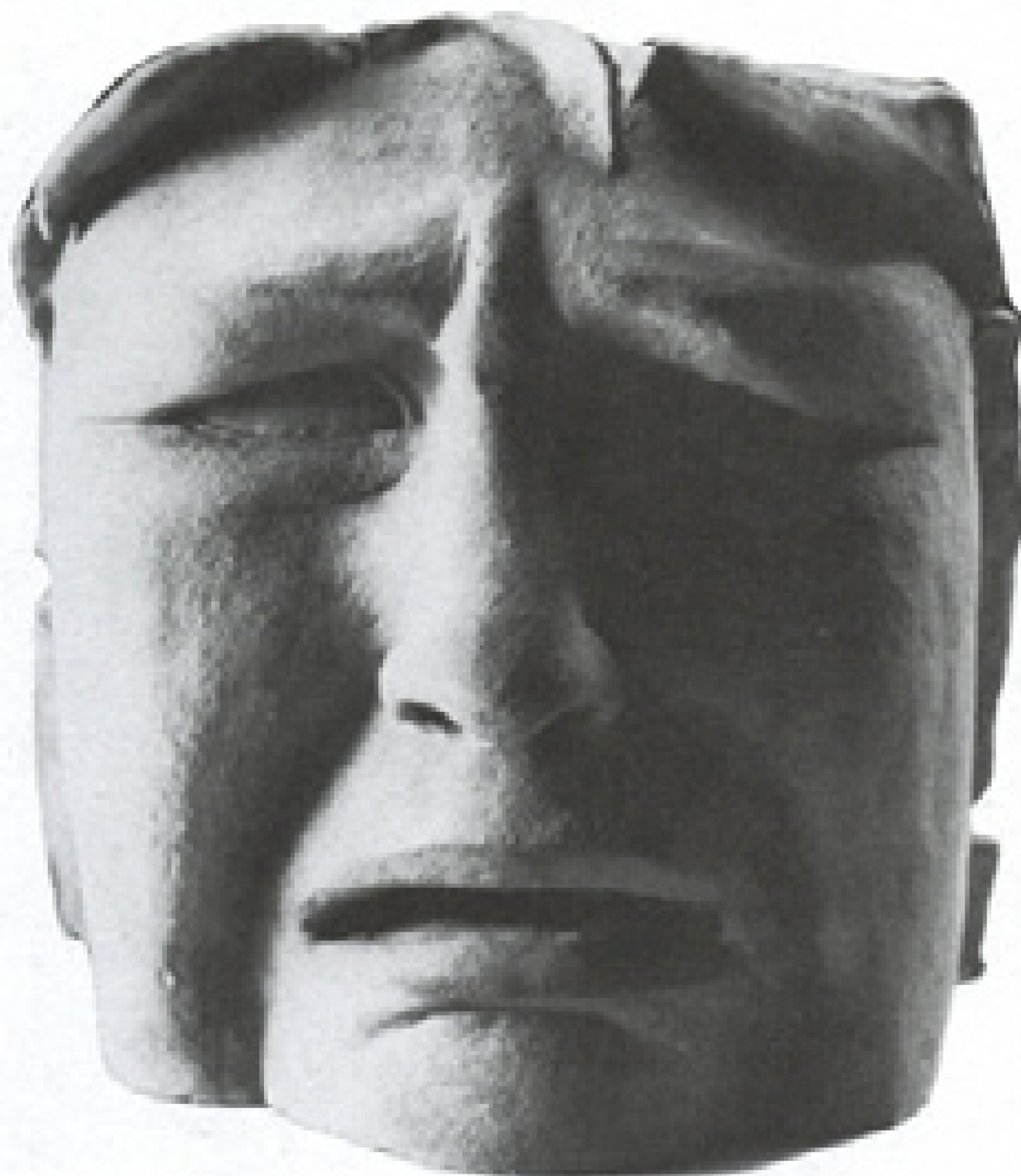
SADNESS: EXAMPLES FROM ART

Sadness lends itself well to understatement, and understatement works well in portraiture. This portrait by Hilary Holmes has no pout, no signature wrinkles, and only one feature that is not neutral—the two, slightly bent eyebrows. The artist said he perceived an expression of “noble melancholy” after the sitter lost a close friend.



In Caravaggio's interpretation, the response of Christ to his betrayal is sadness. His passive acceptance of his arrest and downward gaze lead us to see resignation in his face as well. Deep shadows filling his eye sockets make more emphatic the angular direction of the brows above; horizontal frontalis creases appear across his middle brow (A). The expression of Judas, giving the kiss, is harder to read; his brow and forehead suggest fear—his eyes do not.





This sculpture, part of a series of remarkable self-portraits by Nancy Fried, is an excellent example of the open-mouthed cry.

SUMMARY

Sadness is the most lingering emotion in more ways than one. Emotionally, it can take a long, long time to get over a great loss, like the death of a loved one. No other emotion can stay with us so tenaciously. Sadness can also be persistent as an expression, resting like a shadow on the face, long after other, more fleeting expressions have faded.

The eyebrows are involved in every level of sadness. In sadness, they're bent upward, in crying pulled downward. But when sadness is at its most extreme, the eyes are the key feature—how tightly they're squeezed determines the intensity we sense in the cry. Though the eyes are always squeezed shut, only rarely do we cry

outright, with mouth wide. More typical of the act of weeping is a closed mouth with tight lips pressed from below, pulled toward the sides, and lifted from above. Crying is a spasmodic action, and the mouth takes the brunt of its force.

As the cry ceases, the first thing on the face to relax is the eye-circling muscle, the *orbicularis oculi*. When it slackens, the forehead muscle, *frontalis*, contracts, and the forehead becomes creased and troubled looking, the result of the *frontalis* and *corrugator* pulling at the inner end of the eyebrow in the opposite directions.

For a time, the lip-stretching muscle—*risorius/platysma*—refuses to relax, giving the face the look of someone

about to burst into tears. When we've calmed enough for it to lose its tension, the pout and squared upper lip remain, along with the troubled brow. The strong pull of the brow may reshape the upper eyelid, and the lower lid may be slightly raised; the narrowed lids give the eye a withdrawn, inward look. Downcast eyes are also common.

Finally, all outward signs disappear from the face except the changes in the eyebrow. The slight, sudden twist upward at its inner end is different with every face; just on its own, it can make the entire face look gloomy.

The basis of the crying code is a stretched mouth and compressed eyes; the sadness code is based on the pout and the upturned eyebrow.



1



2



3



The expression of anger revolves around the eyes. The eyes widen in anger, and the wider they open, the angrier we look. What complicates matters slightly is the effect of the brow on the widened eye. Once the artist learns to account for this, great control over the expression of anger follows.

THE BROW VS. THE EYE: WHAT MAKES THE EYES LOOK INTENSE

- 1. Neutral. A man's eyes, with heavy eyebrows quite close to the top of the upper lid.
- 2. Brow down. Simple contraction of corrugator, pulling the brows slightly closer together and downward. Brows are lower than top of upper lid. This pushes down on upper lid, narrowing eye.
- 3. Eyes widened. The eyelid lifter has contracted. Its lift is strong enough to partly counteract the pressure of the brow, and eye opens wider. The combination of lowered brow plus widened eye creates the angry glare.

The glaring eyes of a woman. It is not necessary for white to show above the iris to recognize a glare—the iris, though, must be less than three-fourths covered by the upper lid. Upper eyelid line seems to run into eyebrow.

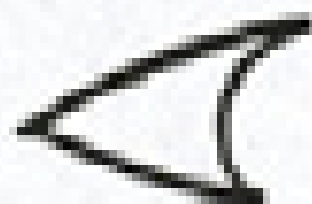
ANGER: THE EYES FROM A DISTANCE



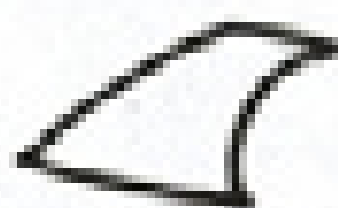
We don't need a lot of detail to read the expression in the gunman's eyes. They seem to glow out of the television fuzz, making even more sinister a sinister scene. Instinctively, we are reading the negative shapes of the eye whites as the signal of menace. The high contrast of the whites to the dark center of the eyes, and to the dark eyelid margin, allows the expressive shapes to communicate even at a distance.



SHAPE OF EYE WHITE



NEUTRAL SHAPE



ANGRY SHAPE

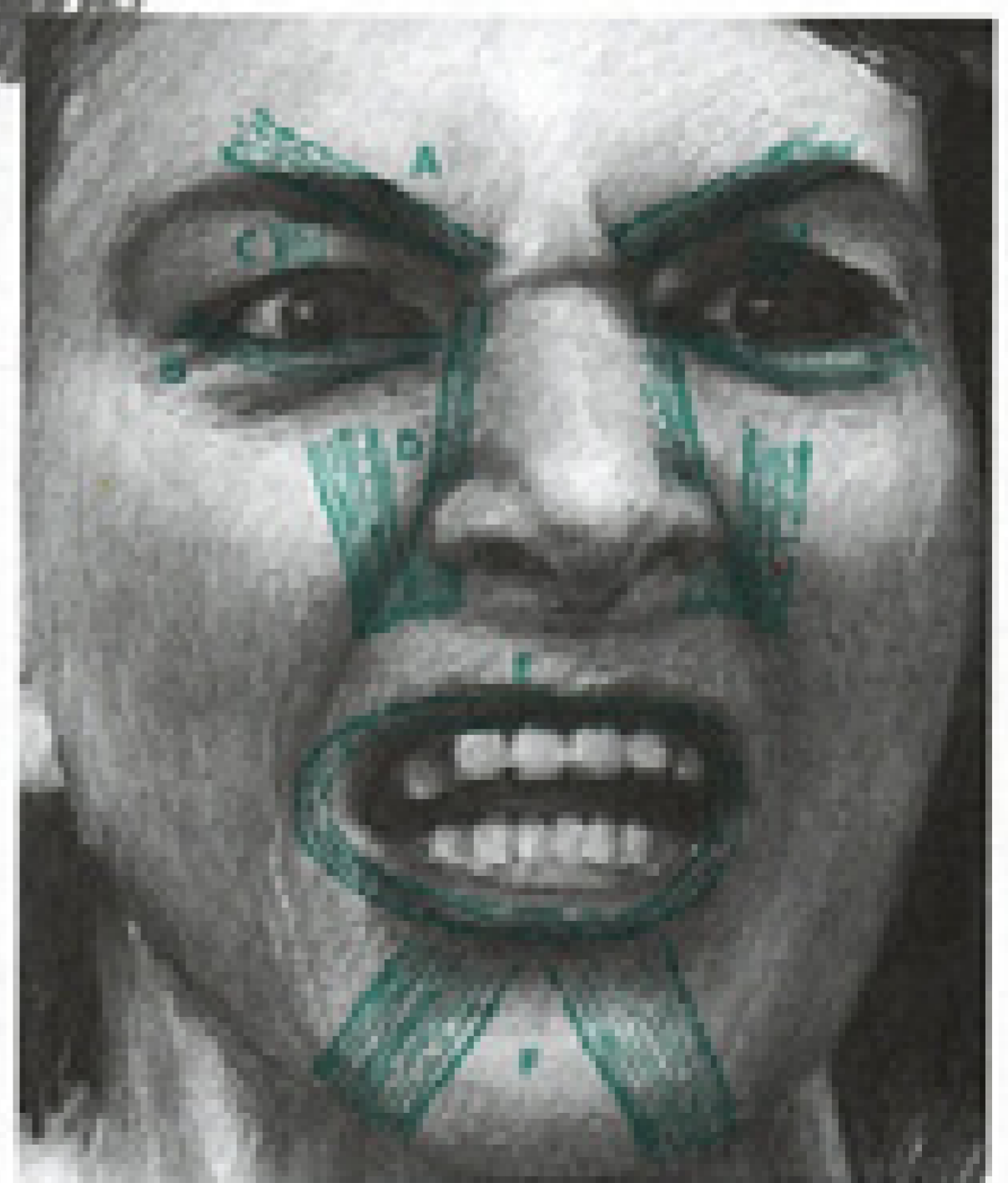
SHAPE ALONE INDICATES WIDENED EYE,
LOWERED BROW, STRAIGHT LOWER LID.

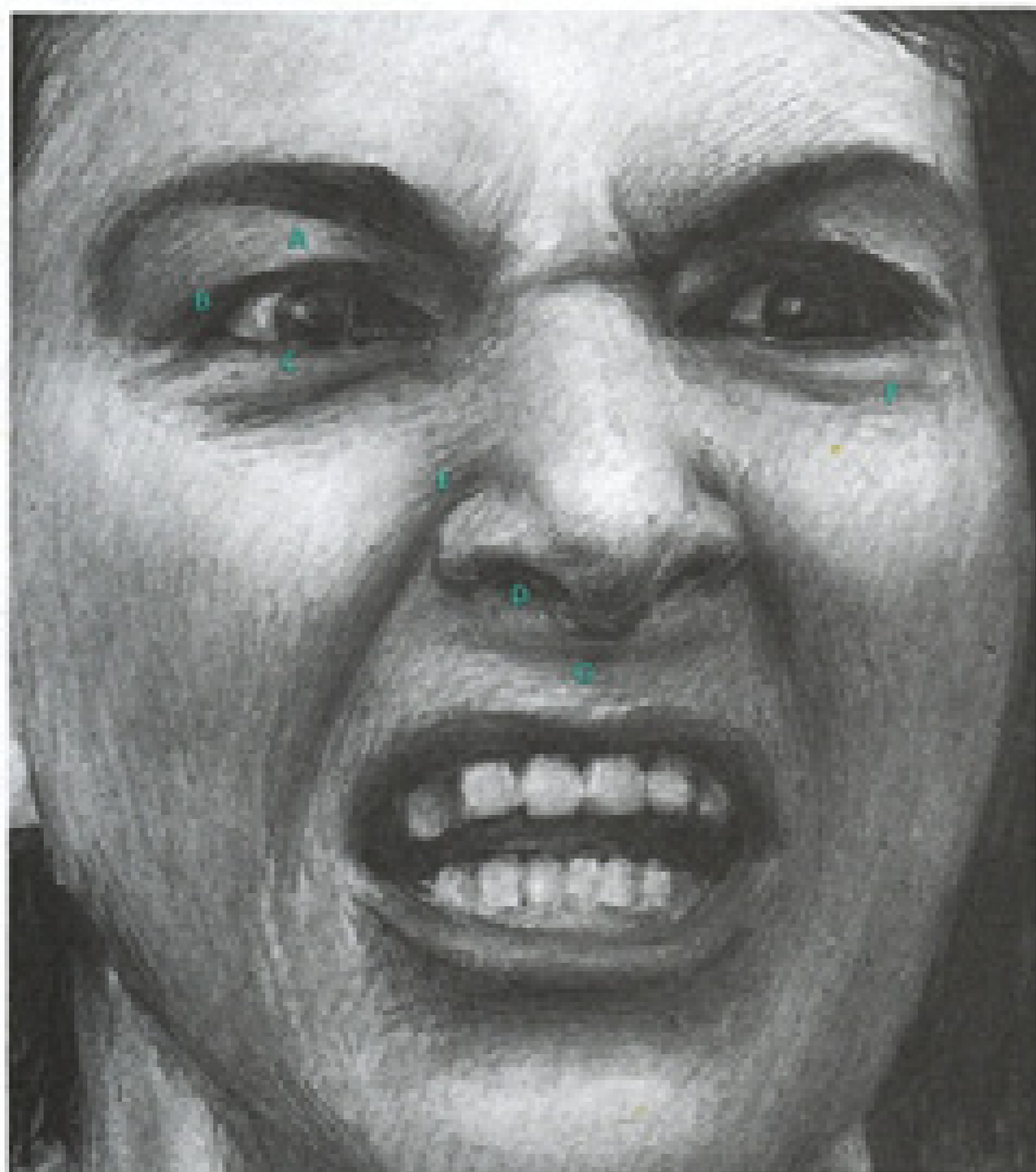


In the expression of rage, fierce, glaring eyes are almost always accompanied by a mouth shaped for shouting: lips tensed, teeth bared, jaw dropped. Even the nose contributes to the angry look. Not only is it distorted into a sneer by the sneering muscle, but its nostrils have flared.

MUSCLES INVOLVED

- A. Corrugator.
- B. Orbicularis oculi (eyelid portion).
- C. Levator palpebrae superioris.
- D. Levator labii superioris.
- E. Orbicularis oris (lip portion only).
- F. Depressor labii inferioris.





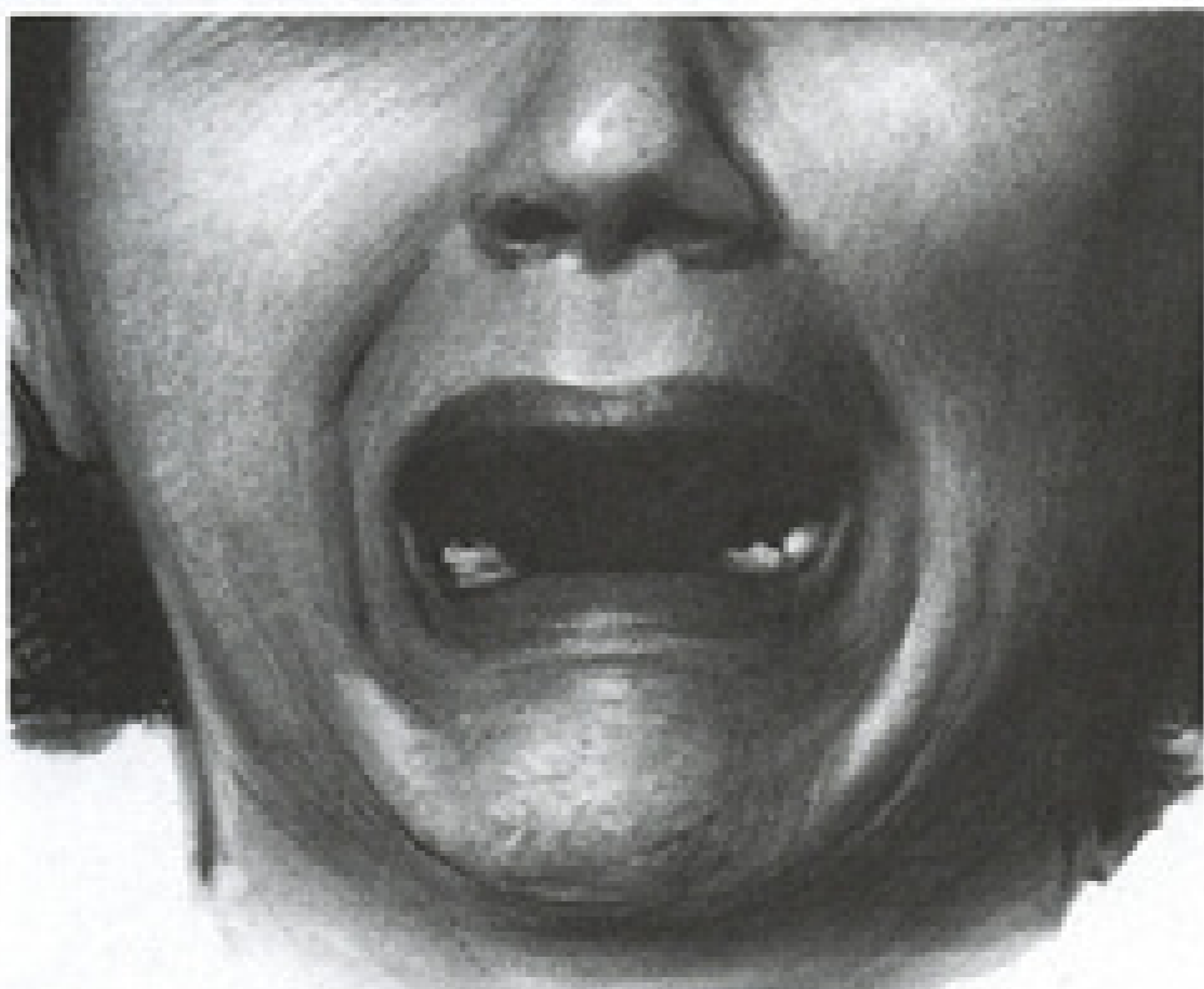
ANGER

THE EYES AND BROW

Corrugator contraction pulls a horizontal fold (A) across the upper lid. (A similar fold in sadness angles upward.) Though the upper lid (B) line is cut off by the across-the-eyelid fold, we mentally complete its arc, observing that if extended, it would pass well above the iris. The straightness of the lower lid (C) adds a harsh, staring quality to the eye. Its shape is due to the contraction of the eyelid portion of the orbicularis oculi.

THE NOSE AND CHEEKS

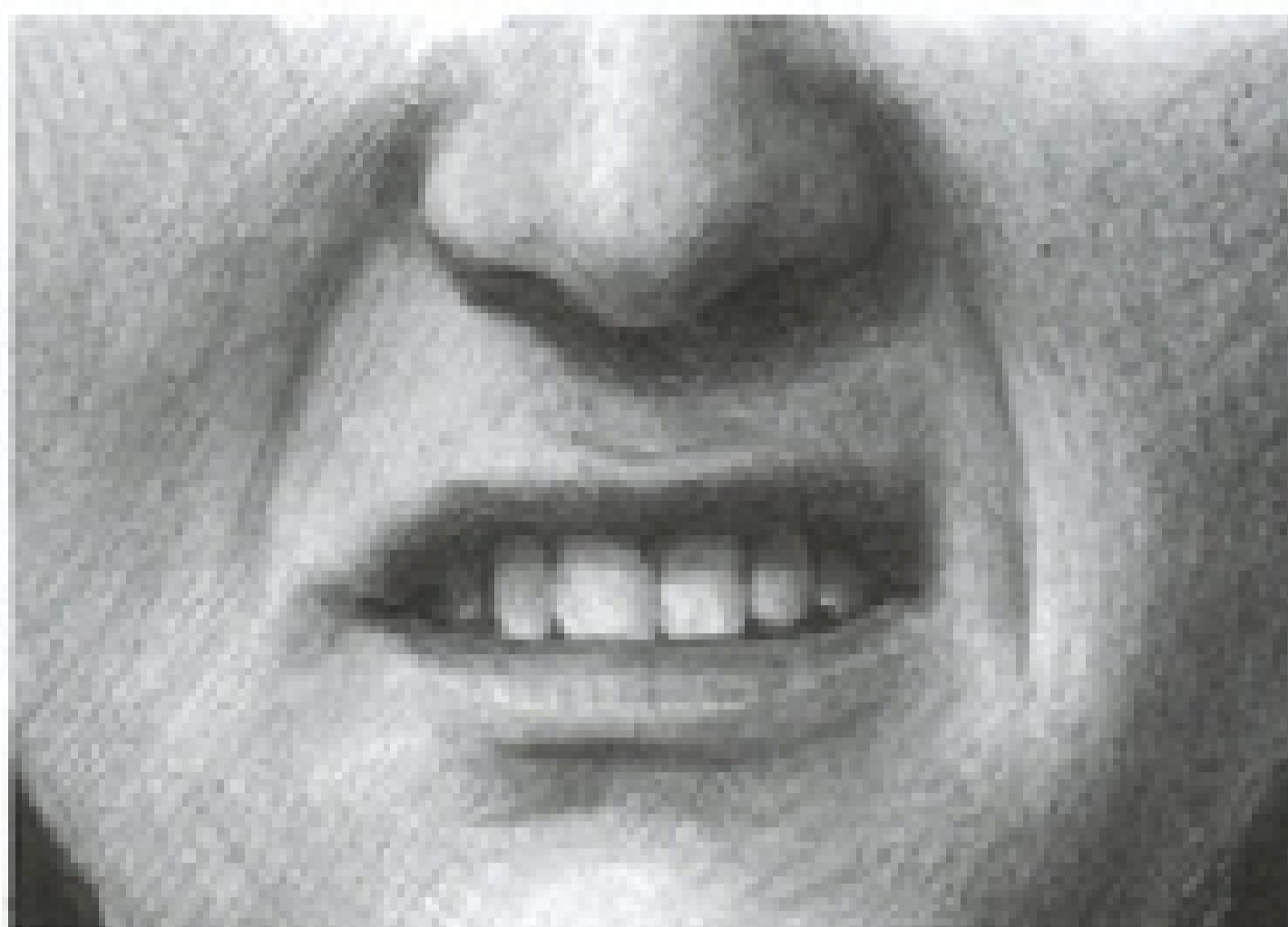
There are three branches to the sneering muscle. In crying, most of the work of lifting the upper lip is done by the cheekbone branch, which avoids the nose. In the mouth of anger, the lift shifts to the middle and inner branches. The nose is completely reshaped, lifted up into a sneer by the wings, giving it a pointed look. Nostrils are flared (D). A deep crease with pocket above appears alongside (E). The cheeks puff; bags appear under the eyes (F), and a little wrinkle appears above the upper lip (G).



SADNESS

THE SHOUTING MOUTH: VERSION 1

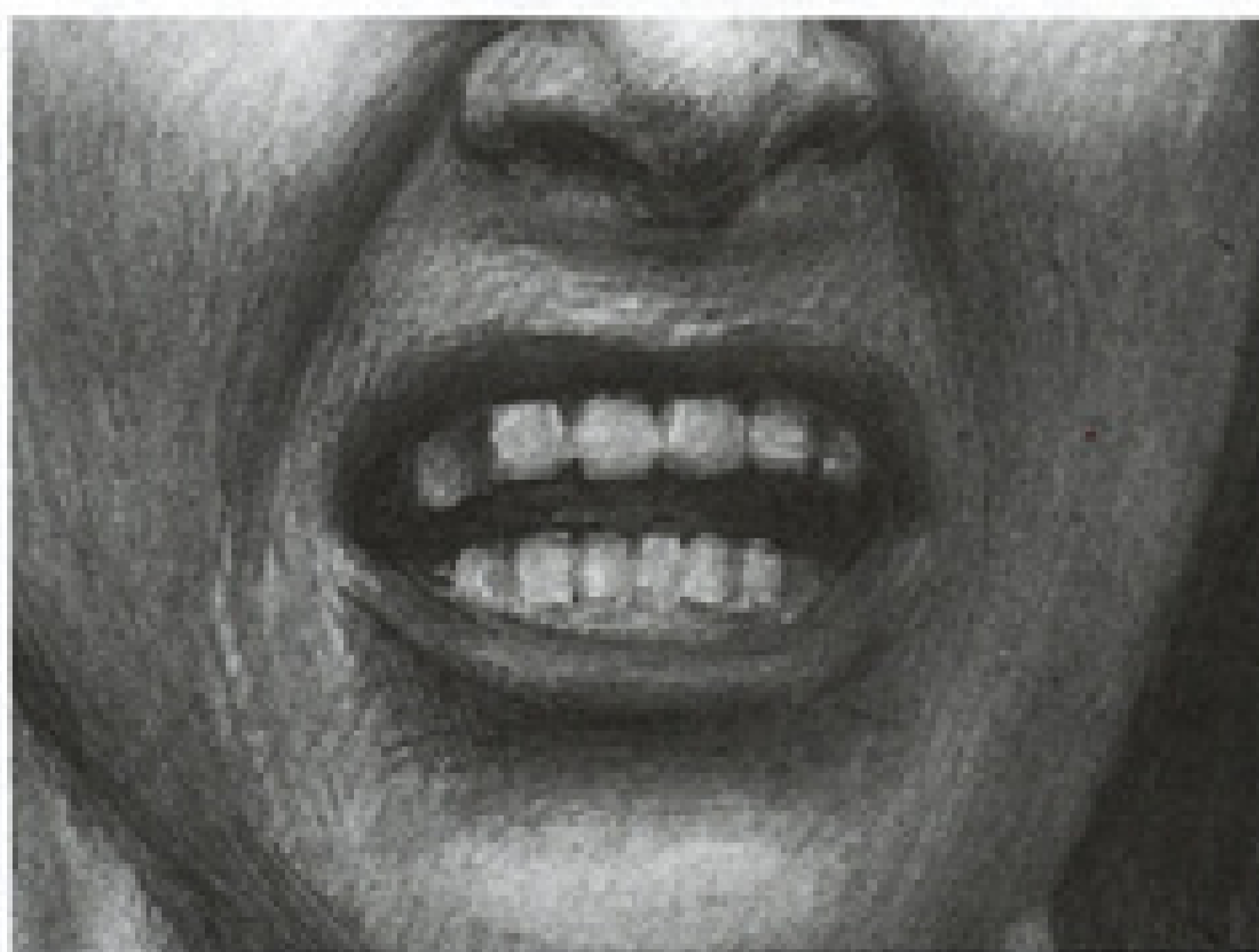
When someone is angry and shouting, the mouth seems to compromise between the proper shape for the production of lots of noise and a desire to expose the upper, biting teeth. "Biting" involves the sneering muscle (top)—the upward pull of the lip off the upper teeth. This may have evolved from a real threat to use the teeth, as in the lip-curling snarl of an angry dog or cat. "Producing lots of noise" requires shaping the lips for speech. The depressor labii inferioris and the orbicularis oris are working together here (bottom). The depressor labii is pulling the lower lip down in a U shape, exposing the lower teeth and gums. The orbicularis oris is contracting, giving the lips a straight, tight edge, important in loud speech. It curls the lips in on themselves; their tension makes both the sneer (top) and the lower-lip pull (middle) less obvious than otherwise.



ACTION OF SNEERING MUSCLE



ACTION OF LIP DEPRESSOR

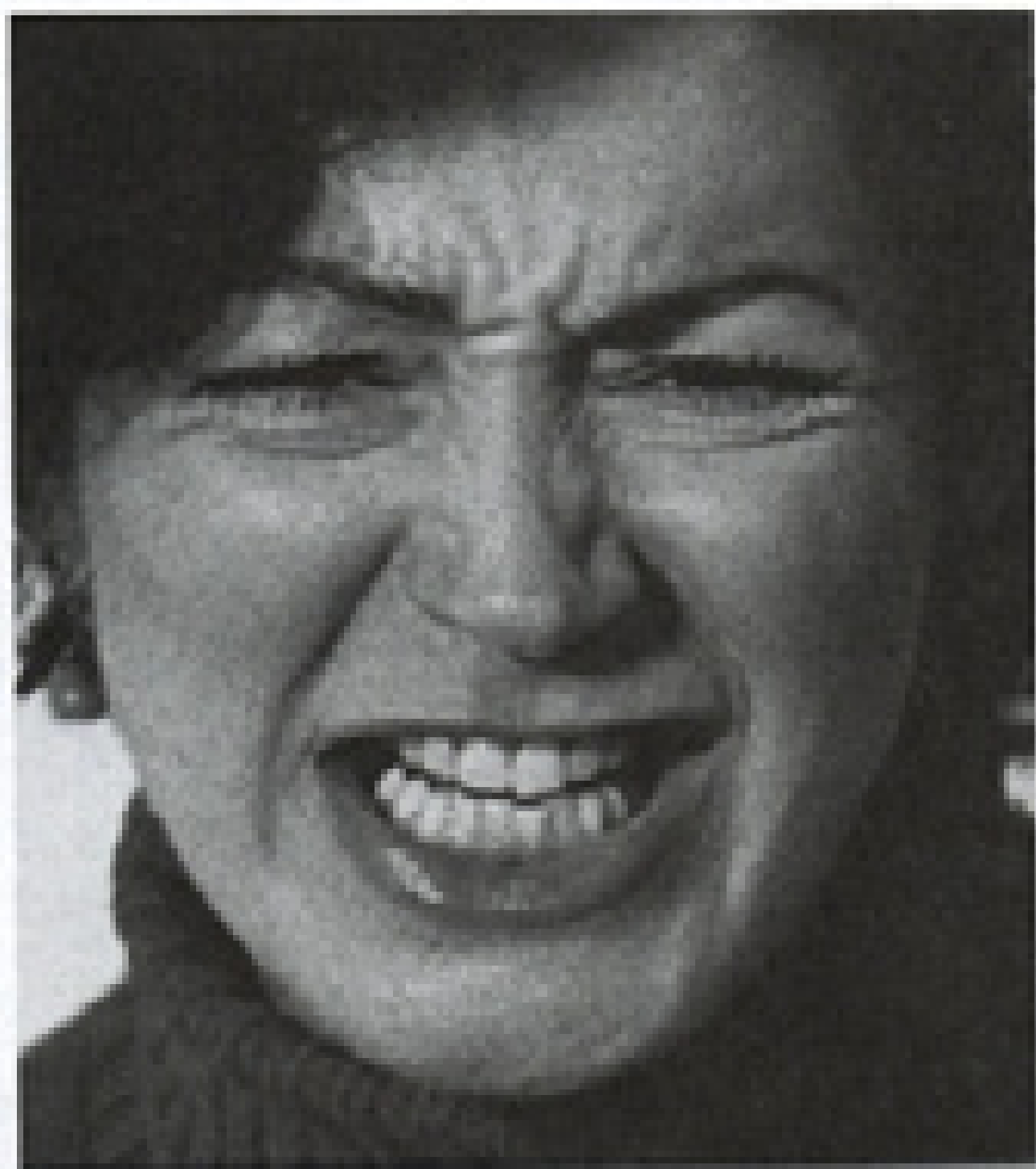


Shouting mouth version 1: The angry mouth shows lots of teeth.



You don't need two eyes to look angry. The basic anger code—wide eyes, lowered brow, and shouting mouth—is equally as recognizable on the face of a one-eyed monster as on a human face. Legendary animator Roy Harryhausen's cyclops resembles the woman pictured below; its single eyebrow, for example, looks like hers would if they were joined in the middle. The exaggerated glare is calculated; cover the upper rim of the iris and note how much less furious the cyclops seems.

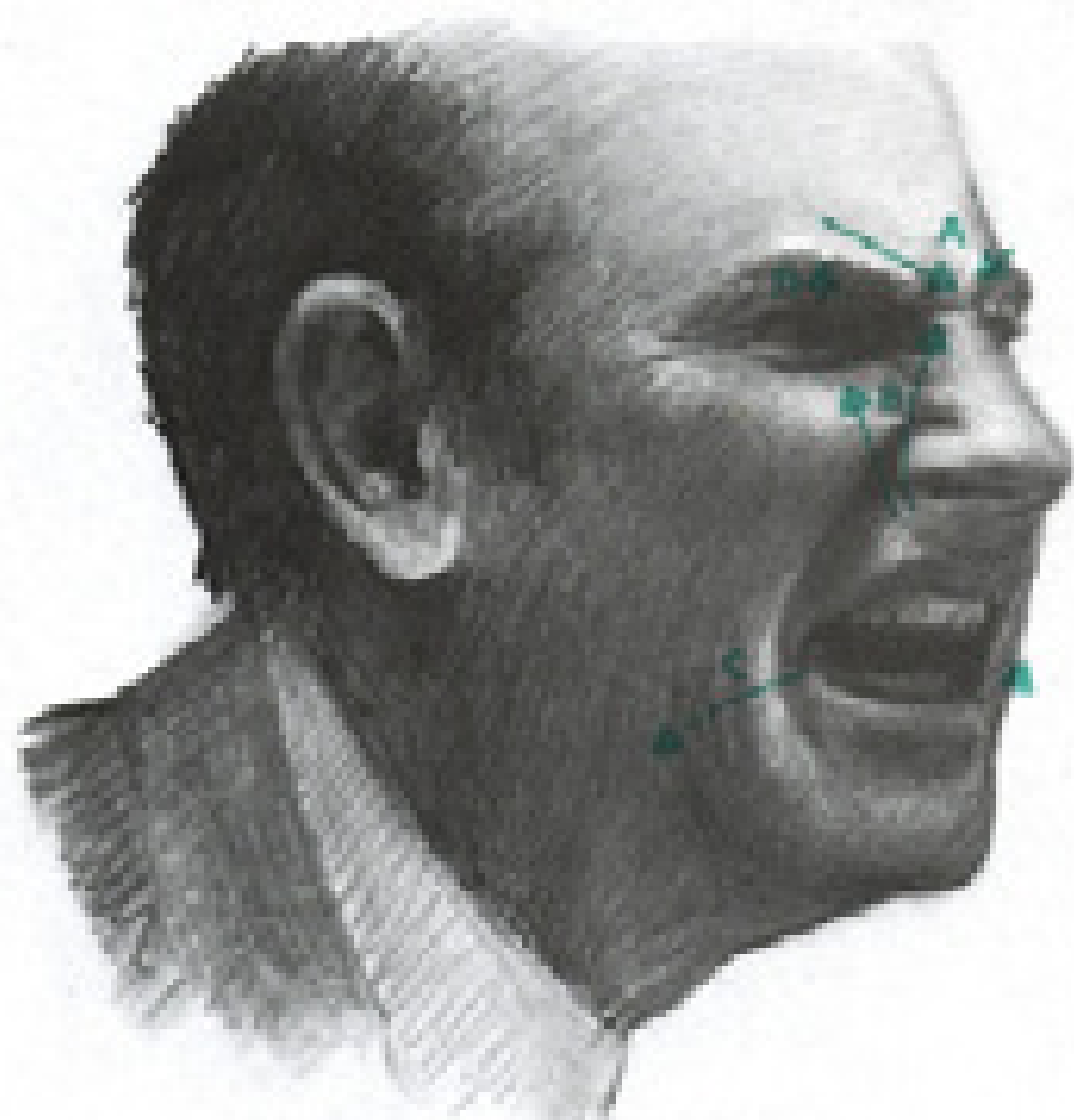
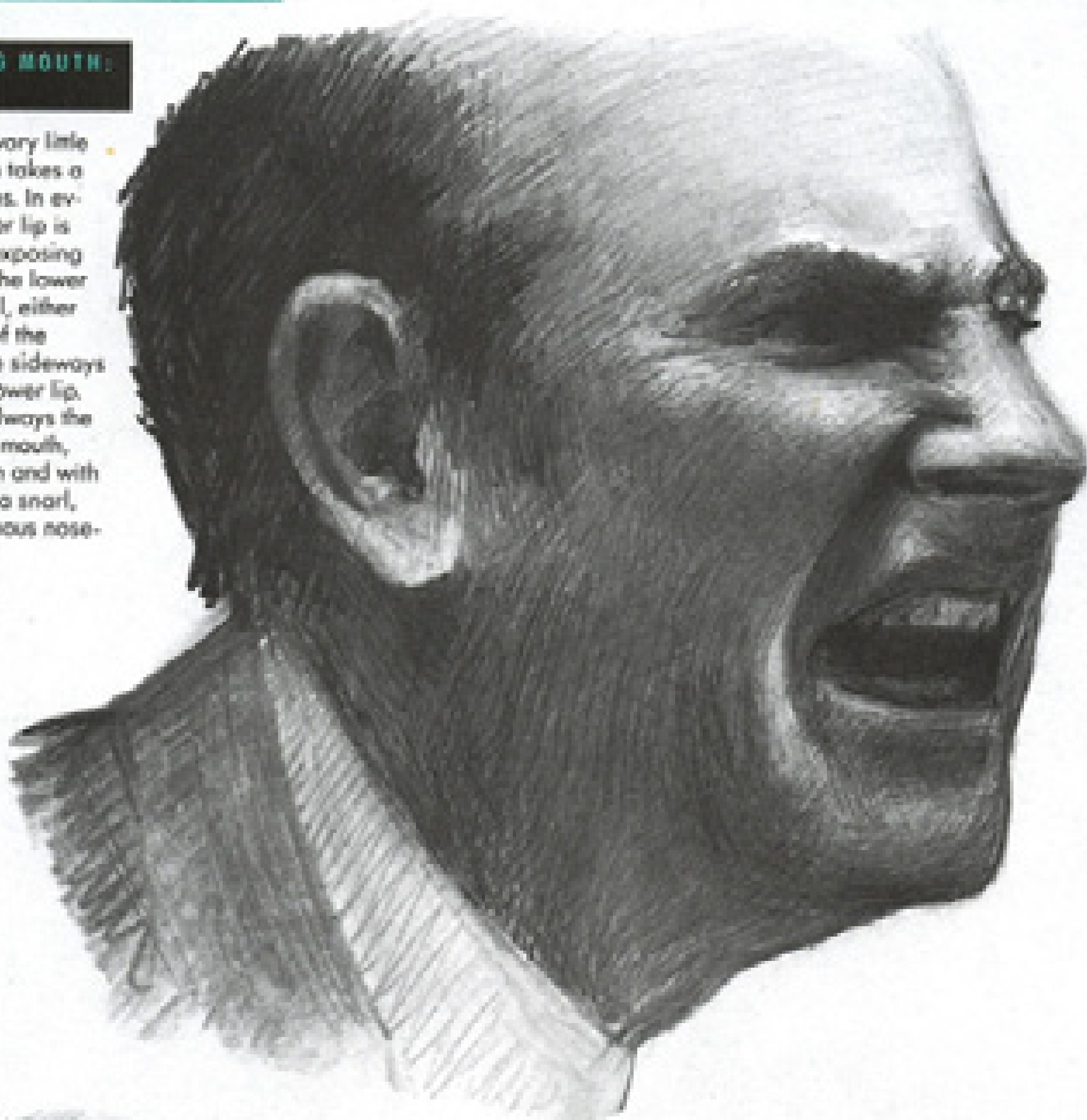
Using anatomy as a decorative element, this mask from the Japanese Noh theater makes a design out of the signature wrinkles of the corrugator. The V shape in the center of the forehead is a designer version of the frown lines. The coshew-shaped bulge at the inner end of the eyebrow is interpreted as a sweeping, curved form, repeated in the moustache and nose curves. The mouth is speaking in anger, with lip edges thinned. The widening of the eyes under the lowered brow is clear.



Simply because an expression exists does not mean that it's effective in a picture. Though this is a picture of an angry person, she is captured at a stage of shouting, with eyes squinting, where our most important cue, the widened eyes, is missing.

**THE SHOOTING MOUTH:
VERSION 2**

Though the eyes vary little in rage, the mouth takes a variety of positions. In every case, the upper lip is lifted in a sneer, exposing the upper teeth. The lower teeth show as well, either by the dropping of the lower lip or by the sideways stretching of the lower lip. The net effect is always the same: a squarish mouth, bristling with teeth and with a strong sense of a snarl, framed by continuous nose-to-chin folds.



This man is putting a lot of energy into whatever he's saying. In ordinary speaking, the teeth are never separated this much, nor is the mouth stretched this wide. This shouting mouth, unlike version 1, is dominated by the lip stretcher, risorius/platysma. (Cards stand out on the neck, as they do whenever mouth is stretched by risorius/platysma.) There is also a strong contraction of the inner branch of the sneering muscle, lifting the wings of the nose, crinkling the eye, and creating a high, lifted cheek with a smile-shaped fold above.

- A. Action of corrugator.
- B. Action of levator labii superioris (middle and inner branches).
- C. Action of risorius/platysma.
- D. Action of levator palpebrae.

THE SHOUTING MOUTH:
VERSION 2

The stretched-mouth shout has a shape that apparently lends itself to simplification—in the hands of a cartoonist, it becomes a rectangle with teeth. Real life is more complex; the little girl (below) shows an angry mouth that compromises between versions 1 and 2.



Version 1: Lips tightened, thinned; lower lip pulled downward. Slightly oval look to mouth shape.



Version 2: Lips stretched; lower lip stretched sideways, not downward. Squared-off look to mouth shape.



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The square shape of the shout is nearly rectangular in this simplified version, with clear nasolabial fold. Upper lid arches high and disappears behind lowered brow. Vertical, not horizontal, forehead folds are in anger pattern.



The face of a furious four-year-old. Both risorius/platysma and lip depressor muscles are active, but neither is fully contracted. Mouth takes compromise position—note dip downward in lower corner (A), shown nicely in cartoon mouth of (B).



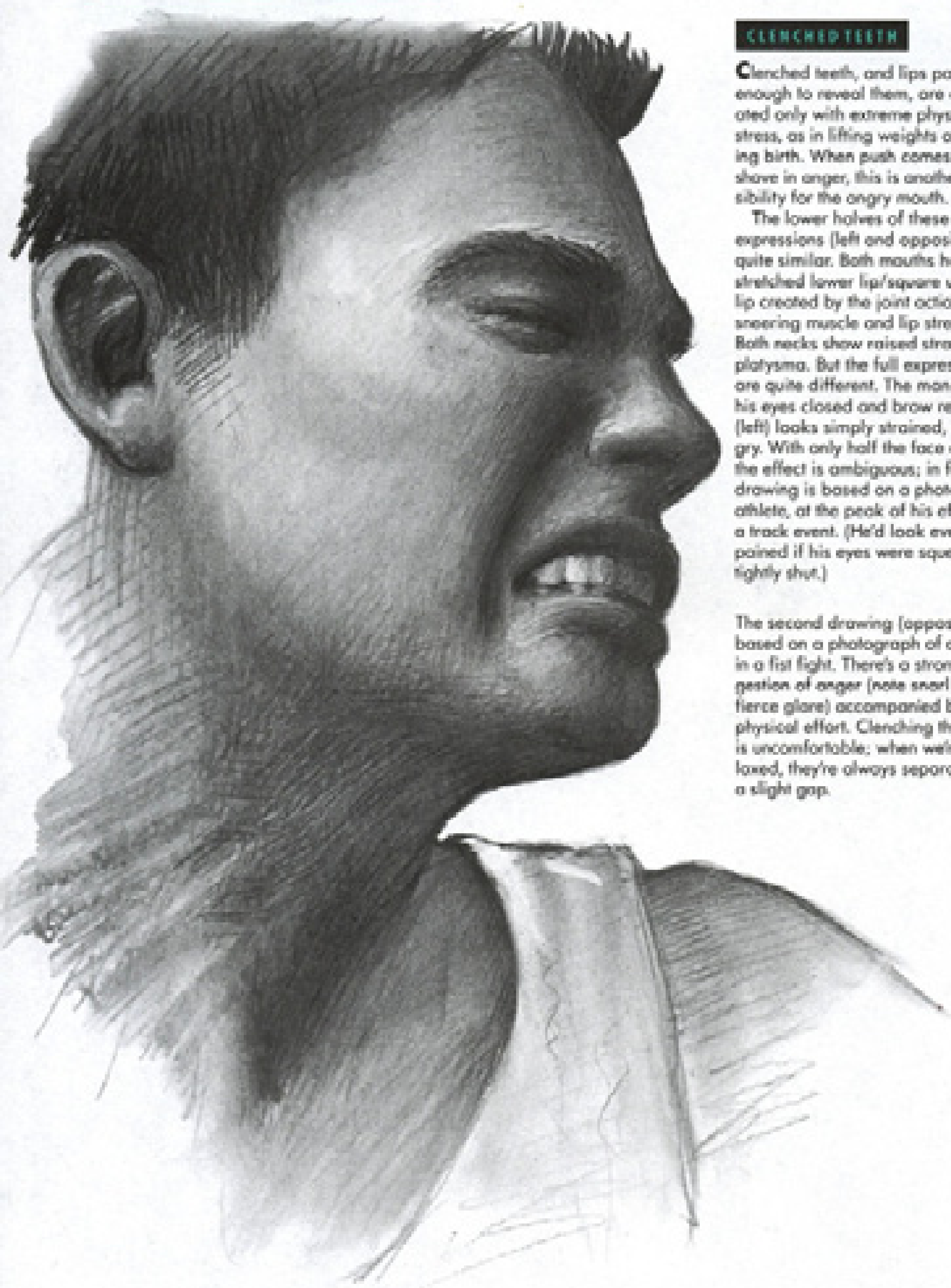
One form stands for two: lowered eyebrow is combined with across-the-lid fold. Note also (1) suggestion of light lower lid.



Drawing by Sherman, © 1984 Warner Bros. Pictures, Inc.

Same expression—even simpler square mouth. Outer curve of the eye-line, rising as high as it does (2), cleverly suggests and exaggerates effect of raised, partly hidden upper eyelid. This is the rage pattern reduced to absolute essentials.

"Wrong number? This never happened with Ma Bell!"



CLENCHED TEETH

Clenched teeth, and lips parted enough to reveal them, are associated only with extreme physical stress, as in lifting weights or giving birth. When push comes to shove in anger, this is another possibility for the angry mouth.

The lower halves of these two expressions (left and opposite) are quite similar. Both mouths have the stretched lower lip/square upper lip created by the joint action of the sneering muscle and lip stretcher. Both necks show raised strands of platysma. But the full expressions are quite different. The man with his eyes closed and brow relaxed (left) looks simply strained, not angry. With only half the face active, the effect is ambiguous; in fact, this drawing is based on a photo of an athlete, at the peak of his effort in a track event. (He'd look even more pained if his eyes were squeezed tightly shut.)

The second drawing (opposite) is based on a photograph of a man in a fist fight. There's a strong suggestion of anger (note snarl and fierce glare) accompanied by physical effort. Clenching the teeth is uncomfortable; when we're relaxed, they're always separated by a slight gap.



This snarl is on a war helmet, used by the Tingot Indians of the Pacific Northwest. As suggested by the mask, the snarl is often a lopsided expression, with the lip curled much higher on one side than the other. Grid-like treatment of clenched teeth is very much like that in the cartoon below. Wrinkles are used here for decorative effect; lots of extra ones are to the left of the mouth and below the left eye. Note deep sneer pocket beside the nose.

A cartoon interpretation of the angry grimace. The square mouth is quite literally square; the clenched teeth are portrayed by a simple grid. The cartoonist has left us to imagine the eyes glaring behind the blank glasses, underneath the lowered brow. An interesting device is used in the woman's eye; as her mood changes from pleased to concerned (and her brow goes from down to up), her iris widens.



ANGER: THE FACE OF RAGE

With anger, you either capture it precisely or not at all. Bearing that in mind, it's instructive to compare these two copies of a lost Leonardo painting, one by Lorenzo Zocchia, the other by Peter Paul Reubens. Reubens clearly was far more familiar than Zocchia with the key element of anger—the arched, widened eyes.



THE DIFFERENCE IN THE EYES

Reubens's copy captures the emotion of rage by paying attention to detail; Zocchia's lockluster copy glosses over the fine points. Zocchia's soldier (A), for example, merely has his mouth open with his eye vague. The same eye in Reubens's (B), with its intense glare, energizes the entire expression. The difference between the horses' eyes is even more striking. Reubens has achieved furious looks at (C) and (D) by showing lots of eye white above the iris, while at the same time suggesting an eyebrow (which horses actually lack), lowered and overlapping the top of the eye. Compare with the dead looks at (E) and (F).





**THE DIFFERENCE
IN THE MOUTHS**

It's also instructive to compare the two artists' treatment of the angry mouth and cheeks. In Rubens's drawing, the mouth (G) is far more stretched sideways (by risorius/platysma) with a far more evident sneer than Zacchia's rendering (H). Note also Rubens's careful suggestion of the upper and lower teeth, missing in Zacchia's, and the glowering eye of the same face—it has a lowered brow but no fire at all in Zacchia's. It is no coincidence that the greatest painters have also been the most skillful masters of facial expression.



SCREAMING MEN

Dramatic confrontations and screams of rage. Sadness is a solitary, withdrawn emotion; being furious is a state of engagement and conflict. We express rage with our entire body—head thrust forward on the neck, arms and hands gesticulating. These images have those things and more in common—the mouth shapes, the brows, and in two of the images, the ridge-lined necks.



Messianic would be a good word to describe the face of the angry John Brown in John Stuart Curry's mural. Not only the face and arms but the beard and hair become part of the expression, their agitated waves repeated in the flag and sky. Curry was well aware of the power of the whites of the eyes; in a mural meant to be seen from a distance, he exaggerated their size and shape, and lightened their tone, making their contrast with the dark brows the most intense spot, and therefore the focal point, of the entire painting. Anatomically, we might question two details: the missing upper front teeth (which always show in the angry shout) and the emphatic horizontal brow ridges. The brow creases may be meant to repeat yet again the wave motif.

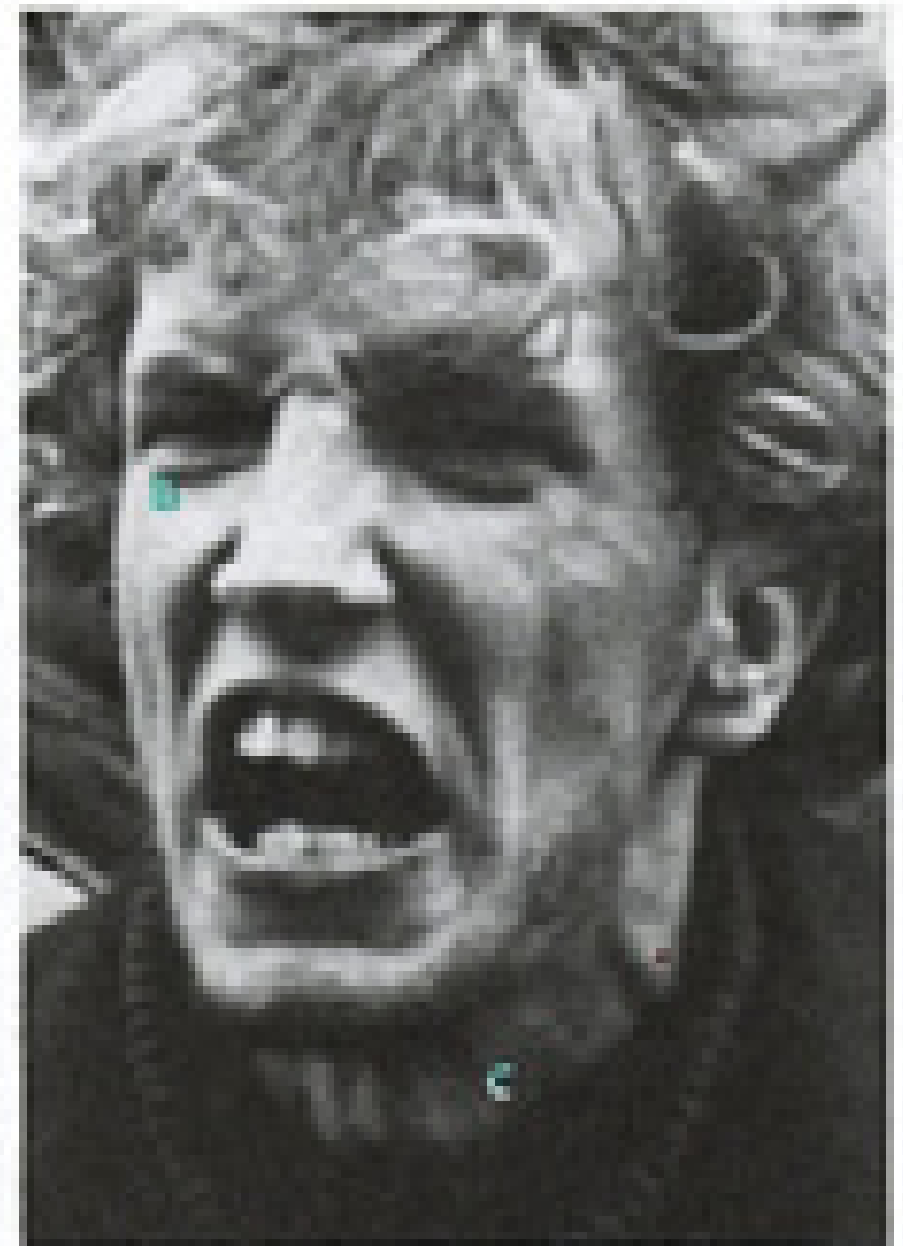




Medieval art is full of surprises. This Romanesque carving, a column capital from twelfth-century France, has a threatening, furious devil. Most curious is the way the artist has depicted the ridges of platysma in the neck (if always contracts in a wide-mouthed shout) as square-sided, decorative bands (A). The expression of Christ, whose stone face is much the worse for wear, is indecipherable; his disciple, however, looks a bit nervous.



The power of a vivid expression can produce an image that, in its intensity, becomes part of our collective experience. Of course, this picture has more than expression going for it; the composition would do an old master proud: the line of the billy club leading up to the contorted face and hands; the way the very expressive hands emerge out of the dark background; the faceless bulk of the policeman in the foreground—everything works. Note the sharp columns of the contracted platysma in the demonstrator's neck.



Action of the inner branch of sneer muscle is strong—note the squinting eyes and sharp folds under lids (B). The mouth shows strong action of the orbicularis oris (flatt lips), lip depressor, and lip stretcher, whose action triggers cords in neck (C).

CLOSED-MOUTH ANGER

When we aren't yelling at somebody we're furious with, we're going to be showing that anger nonetheless. All that energy has to go somewhere. Rather than baring our teeth in a snarl, however, we're more likely to be pressing our lips together in a fashion almost as threatening: the tight-lipped look. Though less is happening verbally when we're glowering at someone with our lips pursed, the sense of an impending explosion can be strong; in some ways, that may be worse.

When tight lips combine with glaring eyes, we might describe the resulting face as furious, irate, or just plain angry.

The Irate Look: Compressed Mouth

In the irate look, we again confront muscular effort being expended in an

effort to *prevent* something from happening—to prevent the mouth from opening into a shout. This is an unconscious effort, of course. The mentalis, the triangularis, and the orbicularis oris work together to compress the mouth. The “three-muscle press” that results narrows the lips, wrinkles the chin, and creates a sense of bulging all around the mouth, especially below.

The sneer aspect of anger is here very subtle; that is, it's not very strong. The sneer muscle is only active enough to slightly deepen the crease alongside the nose.

The Irate Look: Glaring Eyes

By now it should be clear that the main variable in the eyes of anger is not the strength with which someone pulls down the eyebrows; in fact, so long as

there is a noticeable contraction of the corrugator, no extra amount of contraction will make any difference, as far as the expression goes. If you're a parent scolding a child, don't waste your time furrowing your brow extra hard if you want to make an impression; it won't make your threats any more threatening. Nor will you frighten your child with an extreme version of the lip clench; combining a stern lowered brow and a tight lip clench might just get you laughed at.

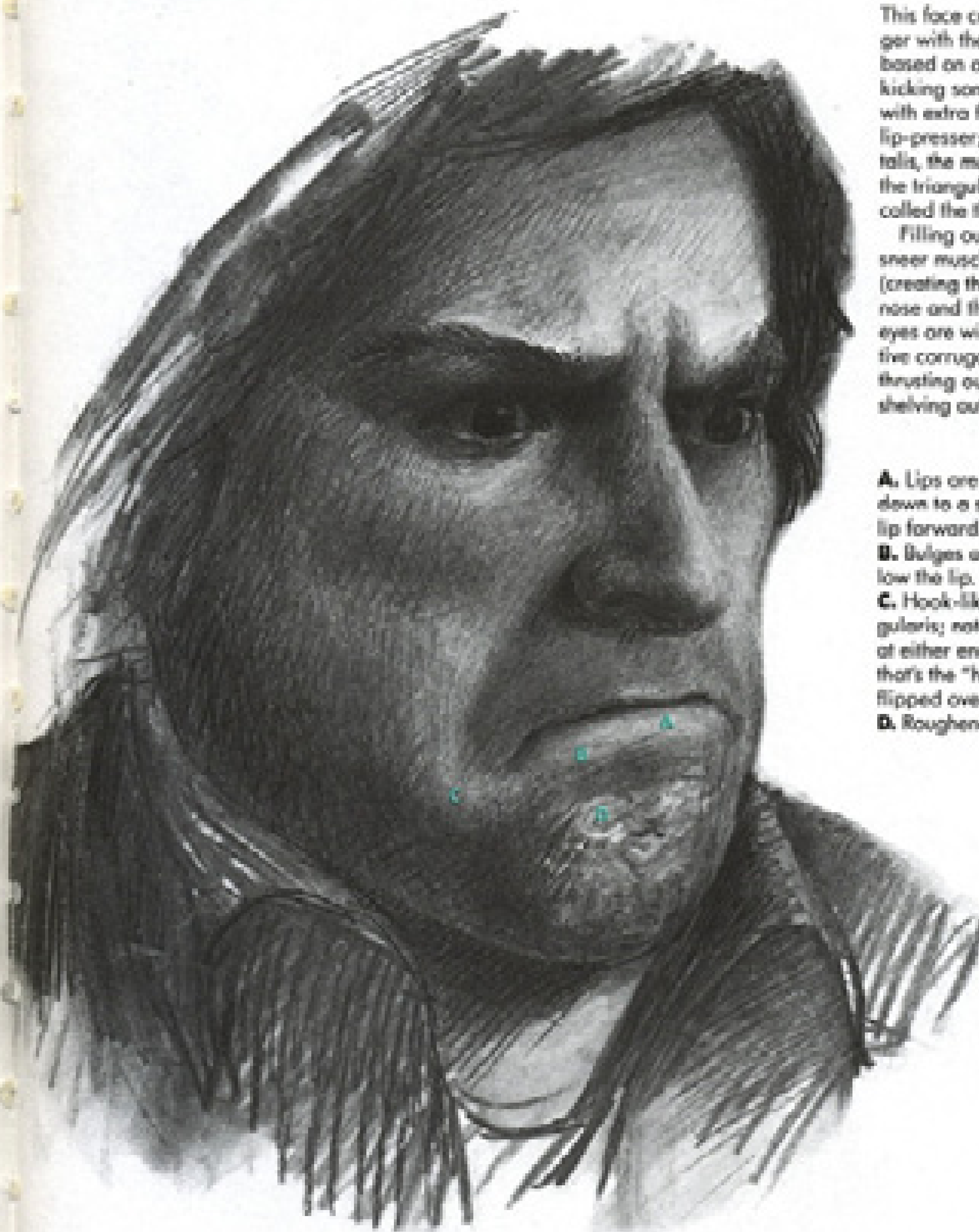
The only thing capable of tipping the scales and really putting the fear into a loved one (and sending him or her running to clean up their room) is the little levator palpebral—the muscle that puts the extra lift on the upper lid, widening the eye in combination with the lowered brow, creating the baleful glare.

ANGER: COMPRESSED LIPS

We can understand why when mothers get angry with children, there's a level of restraint in their expression of anger. Restraint as expressed in the face usually means the strong, lip-pressing contraction of orbicularis oris. But the compressed mouth may also relieve nervous energy in the same way as clenched teeth or a squinting eye.



ANGER: COMPRESSED LIPS



This face combines a high state of anger with the effect of hard work; it is based on a photo of a man in a fight kicking someone. Closing your mouth with extra force always involves the lip-pressor; almost always the mentalis, the muscle of the chin; and often the triangularis. The full action is called the three-muscle press.

Filling out the picture: He's got his sneer muscle, middle branch, working (creating the deep crease beside his nose and the puffed-up cheek); his eyes are wide and fiery beneath active corrugators; and finally, he is thrusting out his lower jaw, further shelving out the chin and lower lip.

- A.** Lips are completely narrowed down to a single, straight line; lower lip forward.
- B.** Bulges appear both above and below the lip.
- C.** Hook-like mound created by triangularis; note also extended mouth line at either end. This is the mouth shape that's the "have a nice day" smile flipped over.
- D.** Roughened chin due to mentalis.

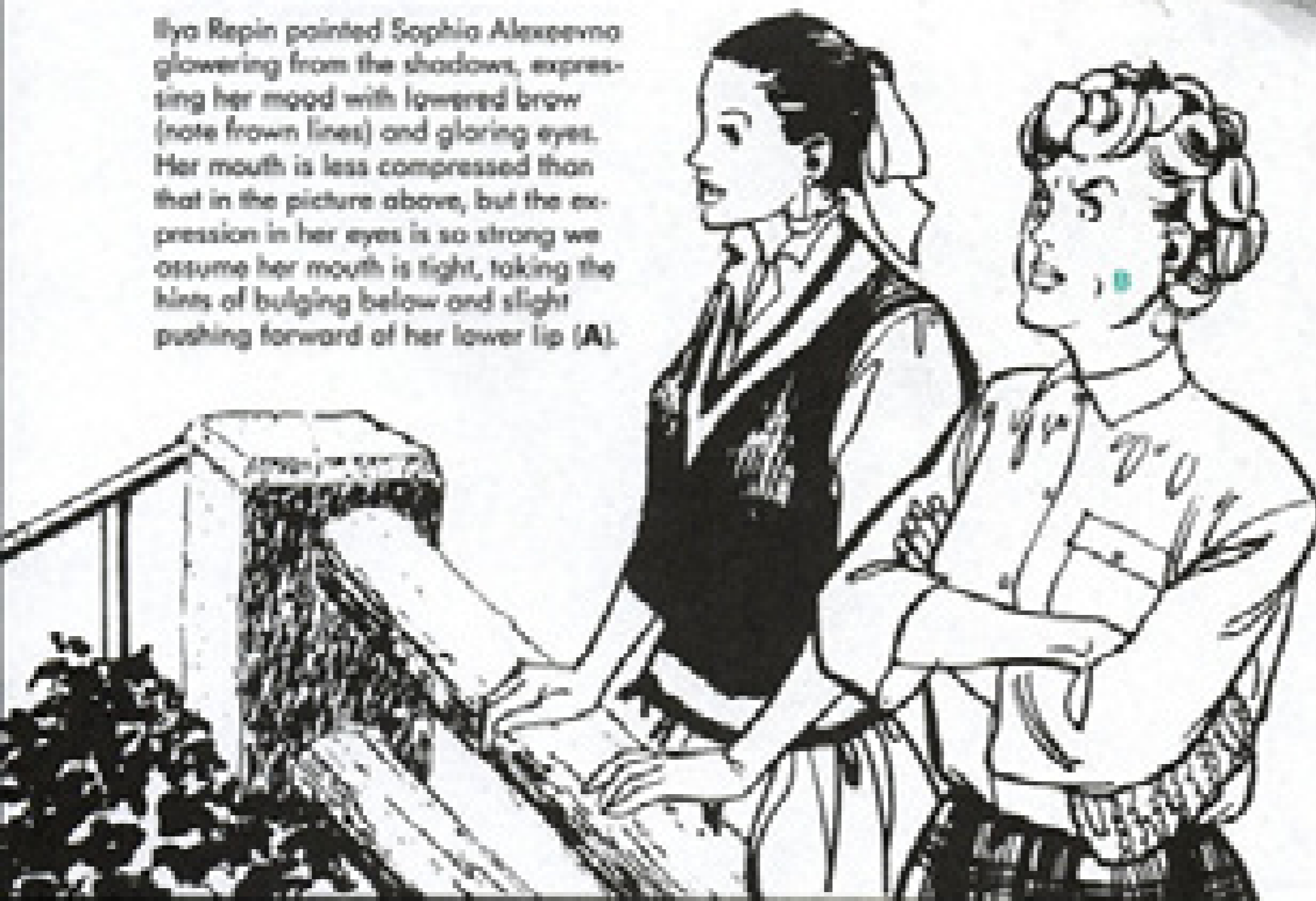
1. Action of levator palpebrae.
2. Action of levator labii superioris.
3. Action of triangularis.
4. Action of mentalis.
5. Action of orbicularis oris.
6. Action of corrugator.

ANGER: COMPRESSED LIPS

Though the sneer is almost gone, the anger remains. But tight-lipped anger could be tight-lipped anything without the widened eyes and the lowered brow. By itself, the mouth of the woman (right) could be that of nervousness or concentration. Add lowered brows, and she might look determined; the full expression requires the glaring eyes.



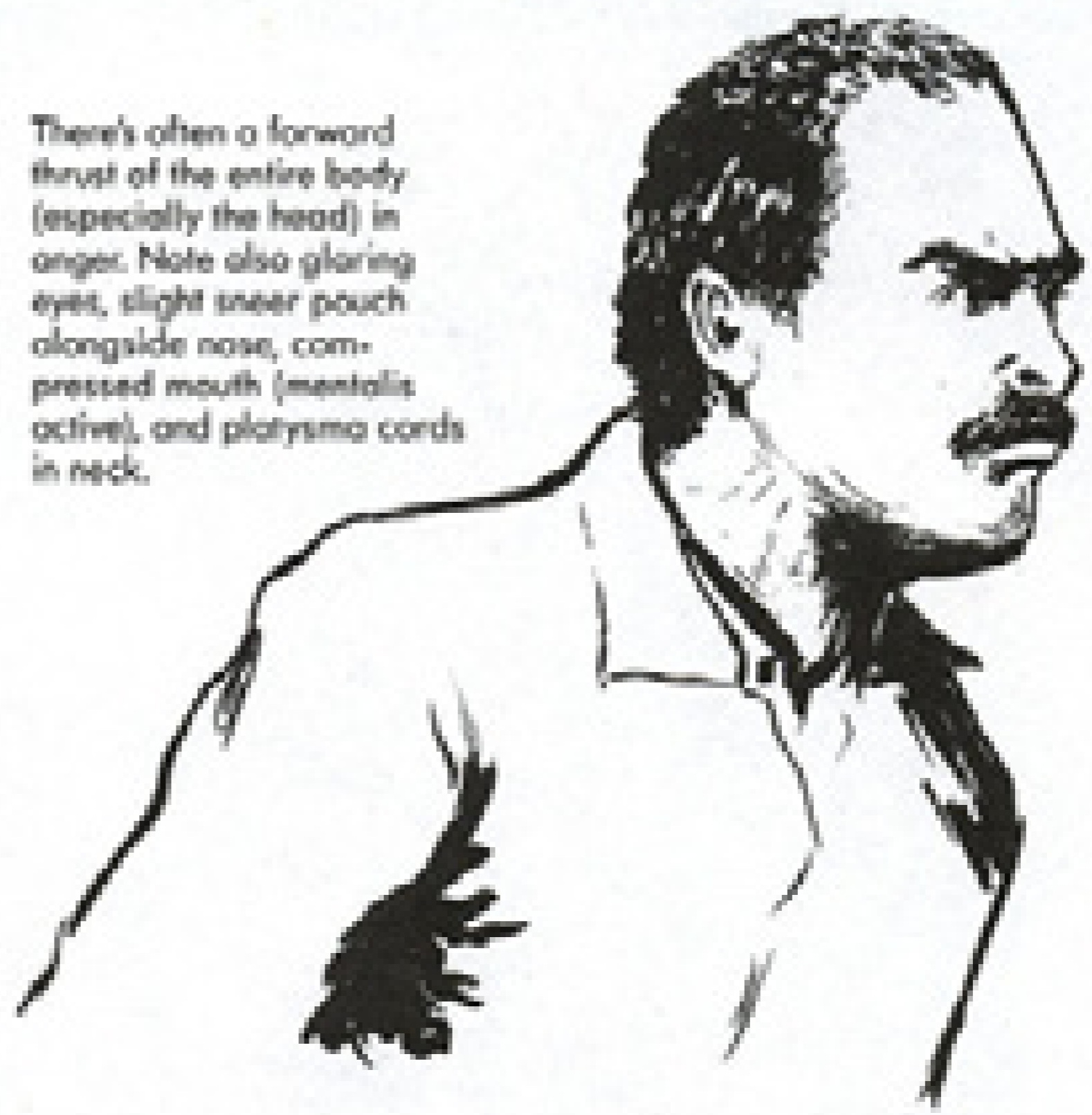
Ilya Repin painted Sophia Alexeevna glowering from the shadows, expressing her mood with lowered brow (note frown lines) and glaring eyes. Her mouth is less compressed than that in the picture above, but the expression in her eyes is so strong we assume her mouth is tight, taking the hints of bulging below and slight pushing forward of her lower lip (A).



An irate woman from the newspaper comic strip *Mary Worth*. Besides the tucked-in arms, the artist has emphasized her anger with her stiff posture and out-thrust chin. Wide eyes and corrugated brows are clear, but the mouth is nearly neutral, with slight squaring of upper lip, and a suggestion of the triangularis bulge (B).

ANGER: COMPRESSED LIPS

There's often a forward thrust of the entire body (especially the head) in anger. Note also glaring eyes, slight sneer pouch alongside nose, compressed mouth (mentalis active), and platysma cords in neck.



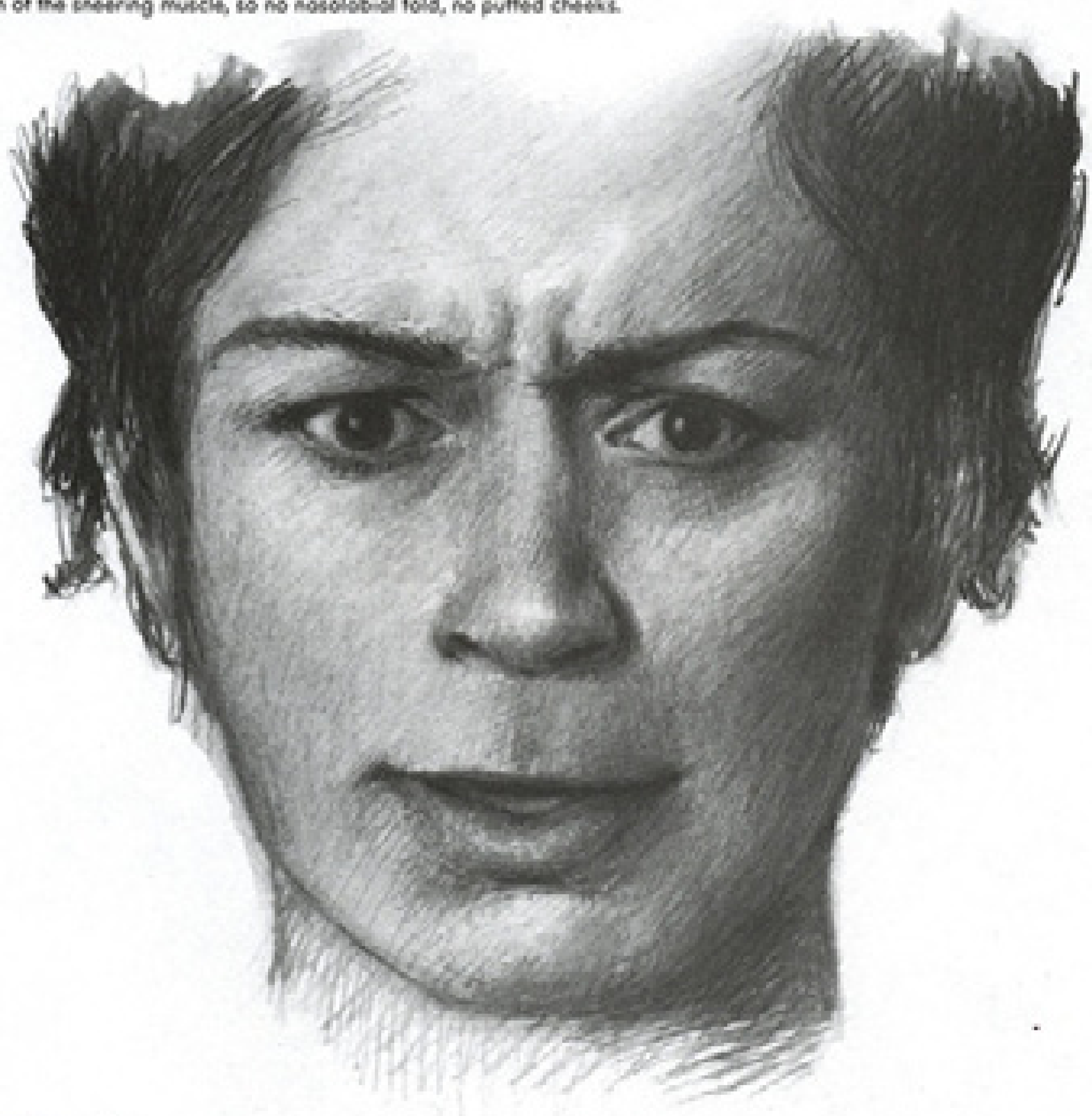
Another man in a fight, Bernini's *David*, shows the strain of physical effort in his mouth as well. The expression is identical with that of the man above except in one respect: his eyes are not quite so wide, and when eyes are less wide open, the expression tends to look more like effort and less like anger.



ANGER: VERY ANGRY EYES, NOT SO ANGRY MOUTHS

Anger on the wane! As shouting dies down and the mouth relaxes, it becomes harder to tell from a picture if someone's angry. Here, we retain the flashing eyes, but lose the matching level of intensity in the mouth. Because there is less agreement between mouth and eyes, the face looks more ambiguous, less mad.

The woman below is seen by many people as angry, although it is often expressed as anger and something. The message is mixed because the eyes carry the weight: her mouth may be angry; then again, maybe not. Also, there's no action of the sneering muscle, so no nasolabial fold, no puffed cheeks.

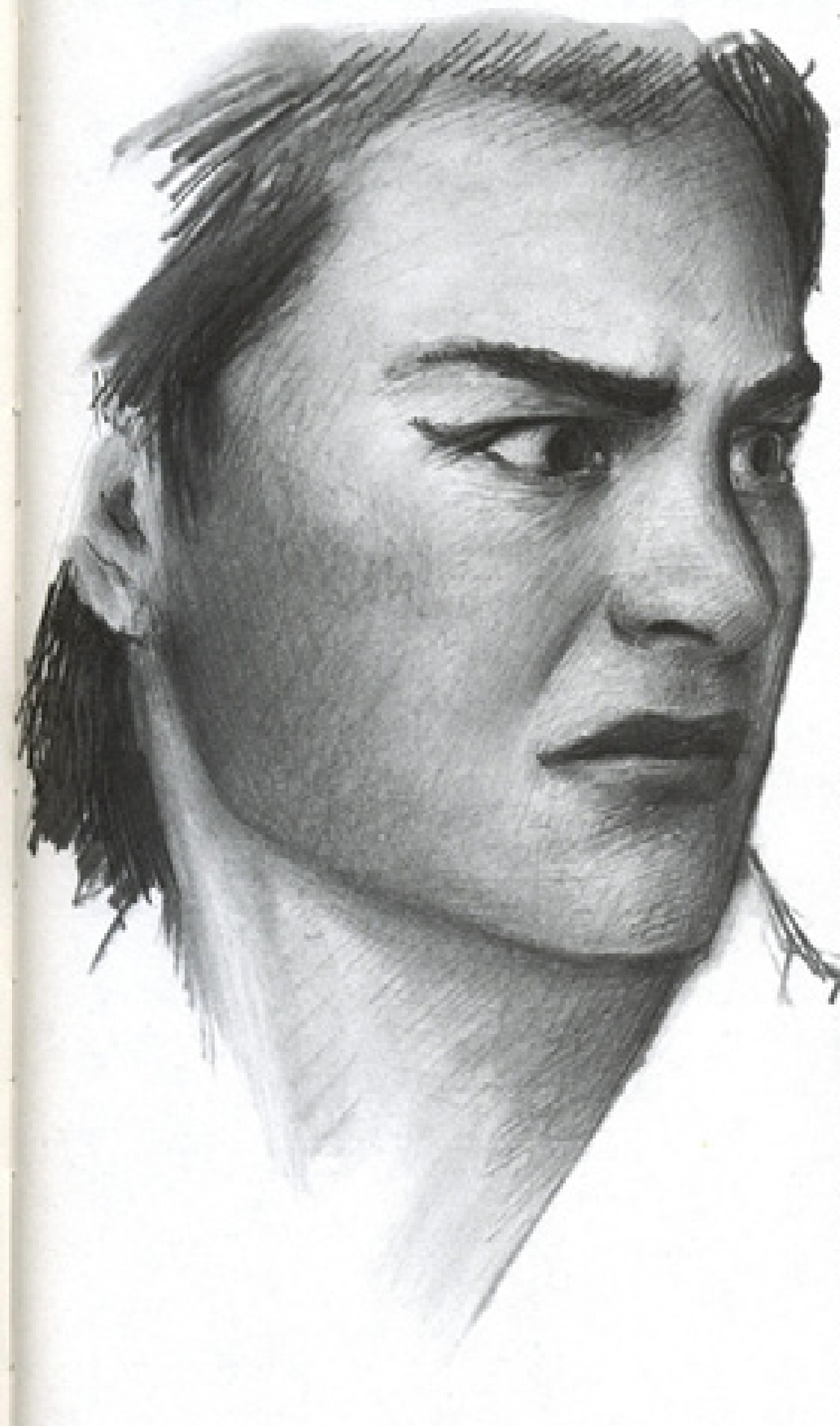


THE MOUTH

In faces of rage, the open mouth is pulled upward by the sneering muscle and down- or outward by risorius/platysma or the lip depressor. Here the mouth's open only a bit; clearest change from a neutral open mouth is narrowed upper lip, owing to contraction of just half of orbicularis oris. Her mouth doesn't look too angry; cover the eyes and she could just be having a conversation.

THE EYES

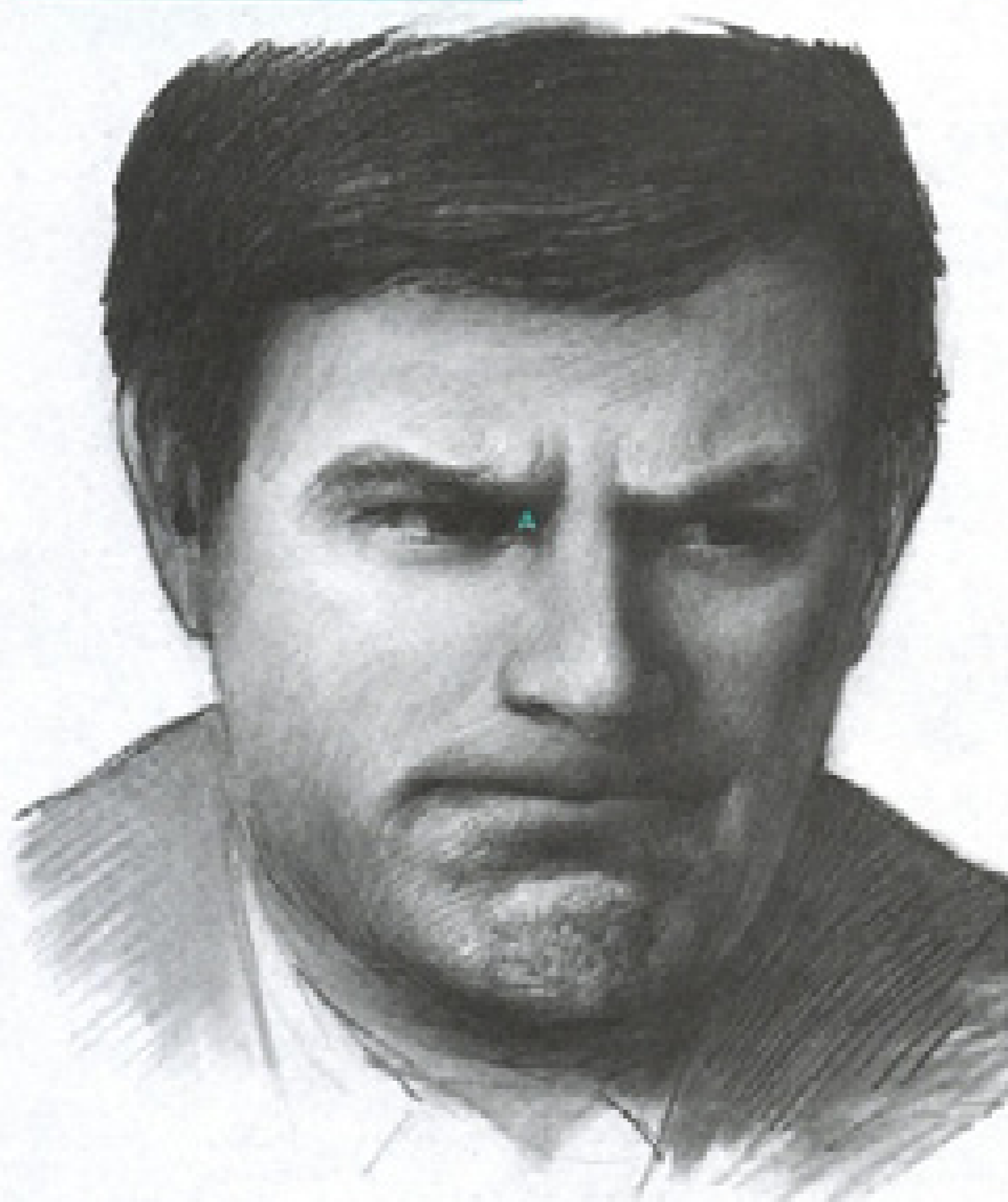
The eyes tip the scales. The brows are very strongly contracted, and the upper lids are partly covered by the horizontal across-the-lid fold. Given the strong lowering activity of the brow, the irises appear particularly intensified. And since the mouth could be speaking in anger, we tend to interpret it as angry. This is another example of one feature weighing our emotional perception of another.



"Get that person out of here!" This drawing is based on a backstage photo of a performer demanding to be rid of an unwelcome visitor. The suggestion of sneer in the upper lip is strong enough, however, so that some have read this first as disgust, second as anger, but in disgust, the eyes are neutral. Here, we clearly read the presence of corrugator contraction from the trajectory of the eyebrow; that, combined with the white showing above the iris, leads us to see her eyes as glaring and her face as angry. Thus the sneer becomes a snarl; in fact, this is a picture of the moment before a scream, with the lip caught in the first stage of its lifting action. Note crease alongside nose created by contraction of sneering muscle.

The eyes make this warrior mask look fierce. The relaxed brow may slant downward, but never enough so that it crosses below top of the eye. The eyebrow slant is combined with eyes with plenty of white above the iris. Eyes this intense, combined with the aggressive gesture, don't need much assistance from the mouth; it's slightly squared, as with woman above.



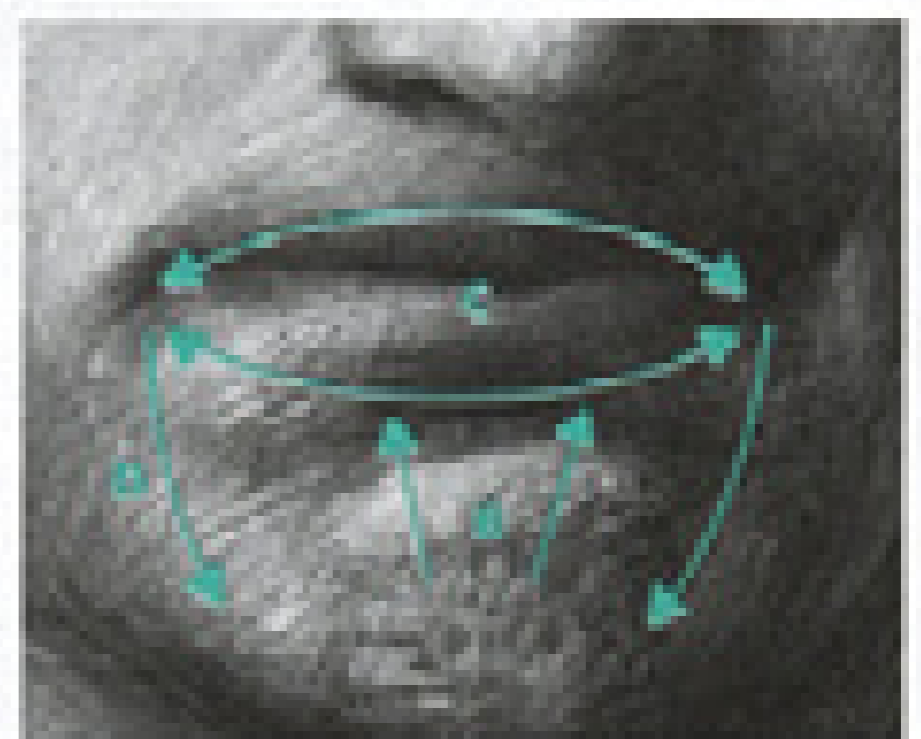


Like most expressions, anger at its least marked appears more like a mood than a momentary passion. The widened eye, the controlling feature of intense anger, doesn't last very long; changes expressive of mild states of anger, like a lowered brow and thinned lips, are more lingering. To most people, the man in the drawing (left) looks mad in a smoldering, frustrated way. The expression of the man below looks more like a permanent condition: we read the anger cues in his face as signs of a harsh, unyielding personality.

THE EYES

The irises are slightly more than half-covered by the upper lid. This is normal when the brows are lowered and the upper lid is not retracted. Note deep shadow (A), below shelf where contracted brow is most raised off surface of face.

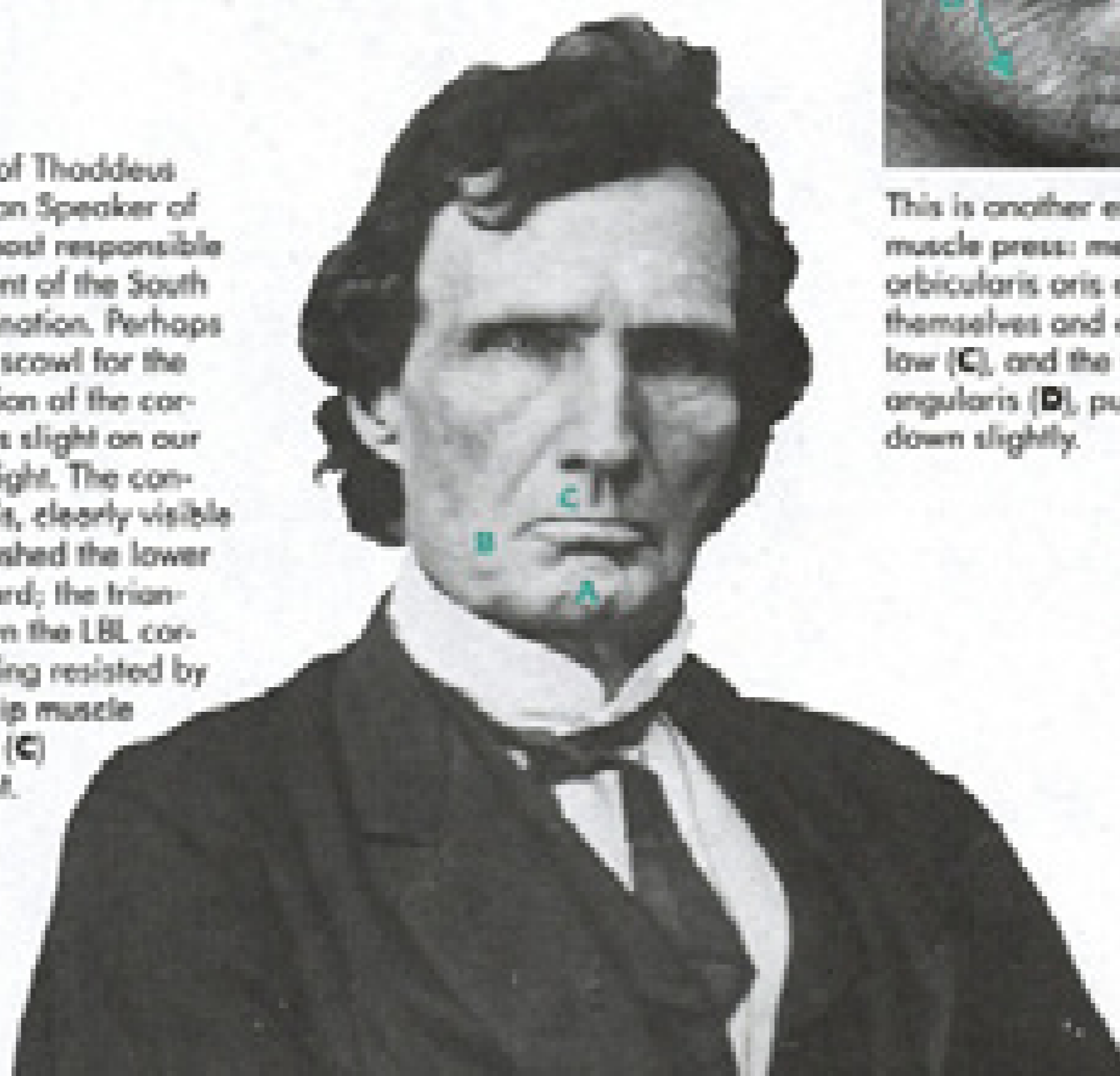
THE MOUTH



This is another example of the three-muscle press: mentalis in the chin (A), orbicularis oris curling the lips in on themselves and creating the bulge below (C), and the weak action of the triangularis (B), pulling the LBL corners down slightly.

STERN/HARSH

The grim face is that of Thaddeus Stevens, the Republican Speaker of the House who was most responsible for the severe treatment of the South after Lincoln's assassination. Perhaps he put on his nastiest scowl for the camera. The contraction of the corrugator in the brows is slight on our left, stronger on our right. The contraction of the mentalis, clearly visible in the chin (A), has pushed the lower lip upward and forward; the triangularis is pulling down the LBL corners (B); all this is being resisted by the upper half of the lip muscle thinning the upper lip (C) and keeping it straight.



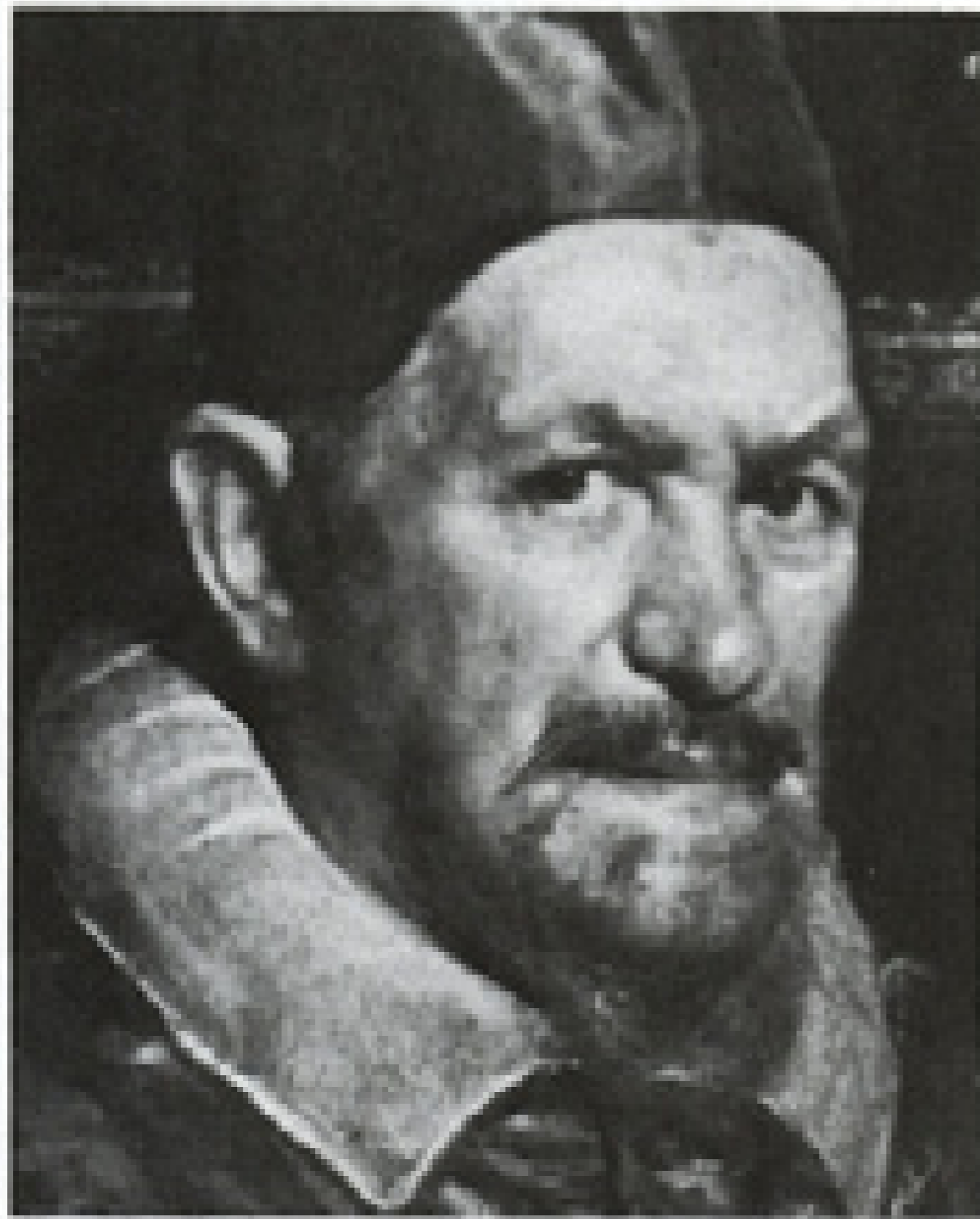


The self-portrait bust (above, right) of the Renaissance artist Montegna now surmounts his tomb in Mantua. Montegna takes the Roman scowl one step further, adding a bit of a sneer (raised nose wings, deep nasolabial fold; **A**). The downward, have-a-bad-day pull of triangularis is particularly strong.

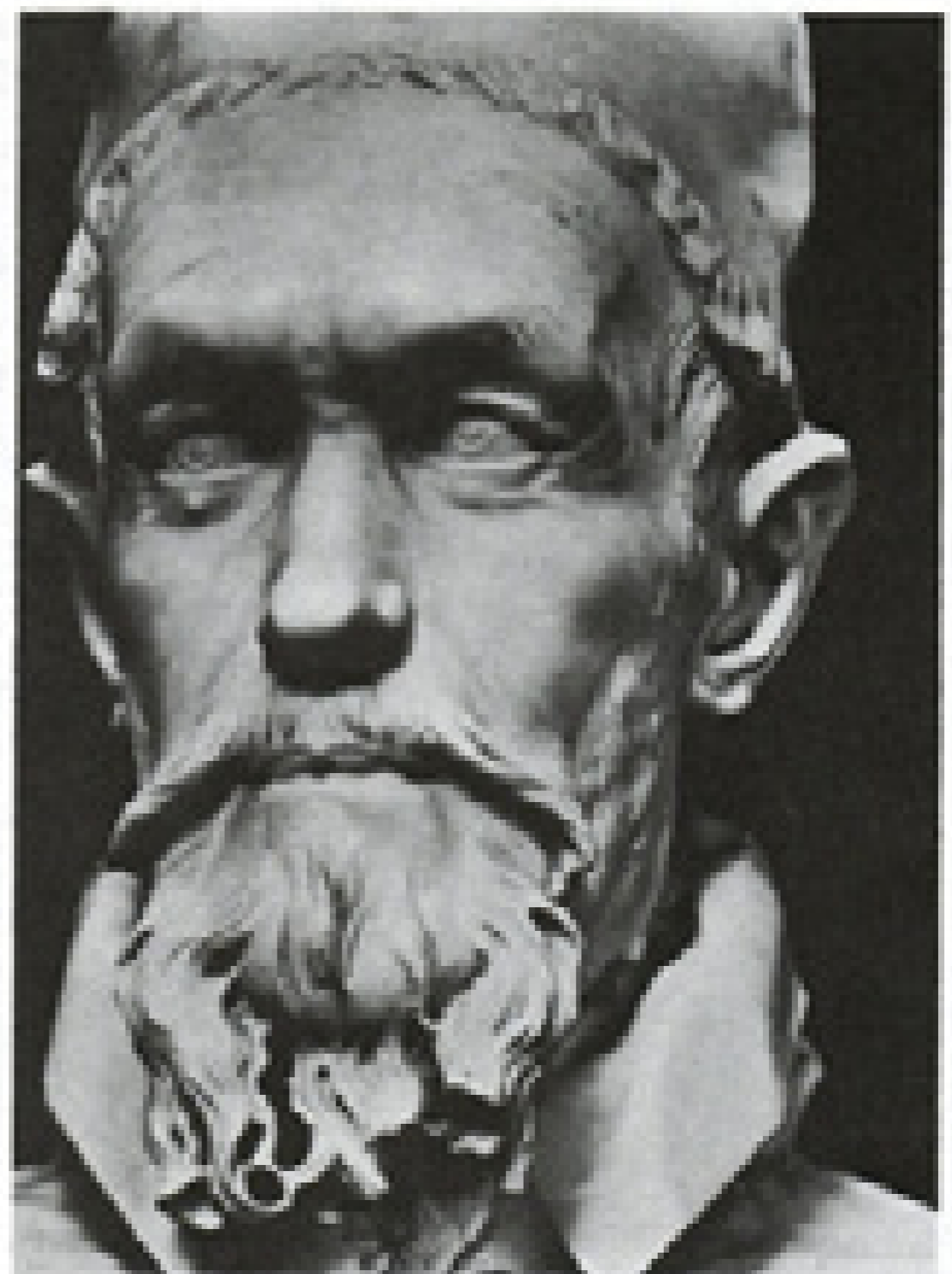
MEN TO BE RECKONED WITH

The severe countenance of the Roman emperor Caracalla (above, left) is an example of the forbidding scowl immortalized in art. The Romans seem to have used the frown as the mask of authority, for it appears over and over in their portraits of the rich and powerful (right). Similar images of prominent men who were (or wished to be seen as) harsh and austere appear throughout art history.

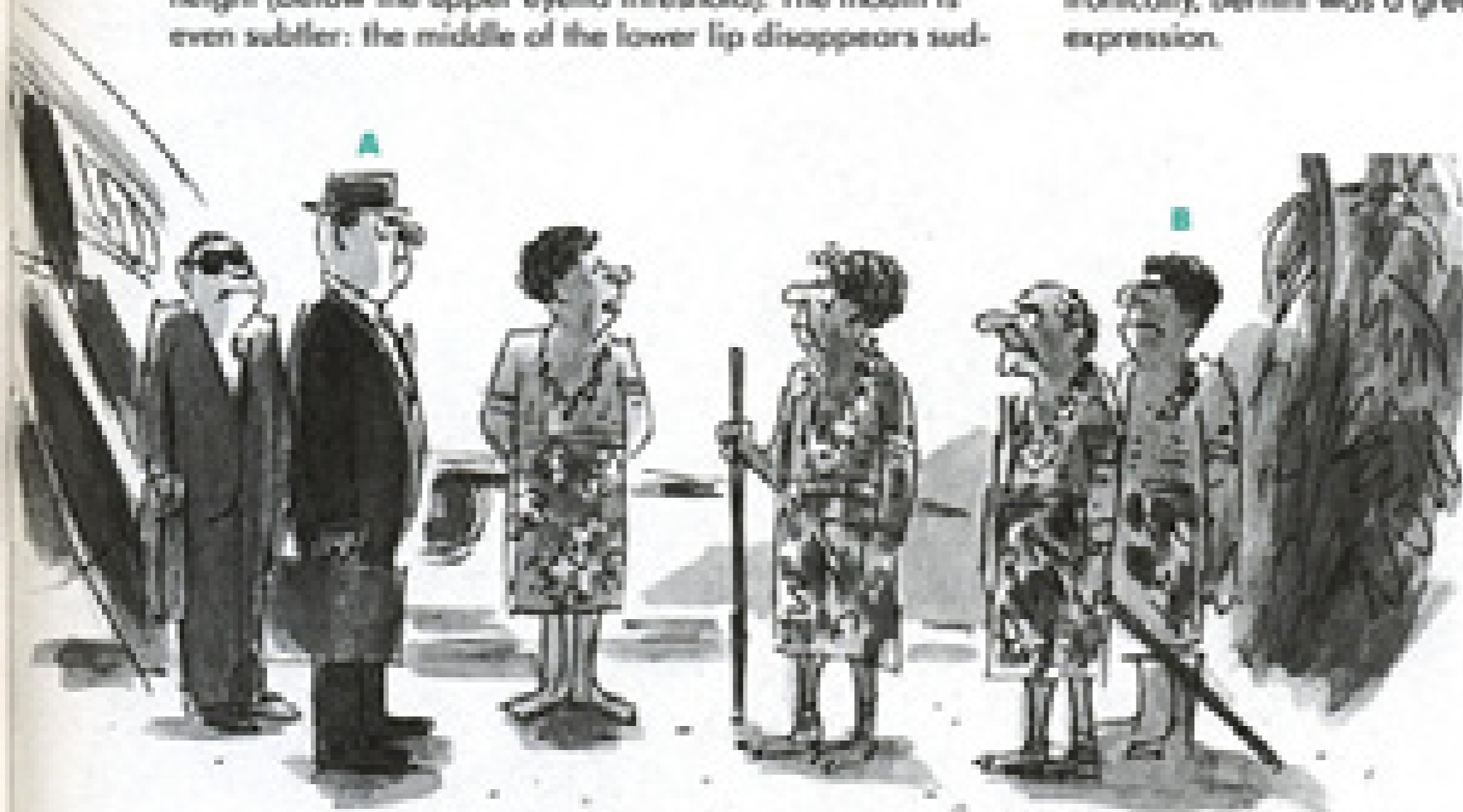




What's good enough for an emperor should be good enough for a Pope. Velázquez captured a face of powerful, calculating authority with his famous portrait of Pope Innocent X (left). It has the classic lowered brow and compressed lips. The action of these two elements is rather subtle; we know the brows are lowered because of their shape (too extreme to be natural) and because of their height (below the upper eyelid threshold). The mouth is even subtler: the middle of the lower lip disappears sud-



denly, complementing a similar narrowing in the middle of the upper lip. The pressure of the lips is thus mostly in the middle; the visual clues are just enough to recognize the mouth as a participant in the face of sternness. In the Bernini portrait of the same Pope (right) the relaxed lips and neutral brow completely defuse the personality captured by Velázquez; the result is a bland "official" portrait. Ironically, Bernini was a great master of the sculpted expression.



A cartoon version of authority figures wearing the stern/angry face. The artist, James Stevenson, clearly subscribes to the idea of the universality of expression, at least on both sides of the Pacific. Note the projection of the lower lip forward of the upper (the opposite is usually true) on figures **A** and **B**; this occurs when mentalis action is strong.

"The Ambassador says he does not care what we have heard—he speaks for both Secretary Weinberger and Secretary Shultz."

Drawing by Stevenson, © 1984 The New Yorker Magazine, Inc.



It's only natural (though incorrect) to assume that animals smile and scowl the same way we do. These are examples from the long, long history of transferring human expressions to the faces of beasts; in fact, there are no expressions (except, perhaps, the monkey's grin) that look just the same on them as on us.

It's a fair bet that neither Reubens nor any of his contemporaries had any idea what wild lions really looked like. We're still ready to find his lions fierce and threatening and may see nothing strange in the

close resemblance to human faces of anger. The main device he uses is the suggestion of contracting corrugators and lowered brows (A, B, and C). No matter that lions don't even have such a corrugator. Snarl (D) is also closely based on a human model.

Though far less fierce-looking to our eyes, this is how an angry cat really looks. According to the artist, Charles R. Knight, an enraged tiger flattens its ears, opens its eyes wider, and snarls—it does not lower its brows.



THE SCOWLING BEAST

If you were an artist assigned to create a coat-of-arms for a beer label topped by a regal head of a horse, what better model for noble bearing (or noble arrogance) than the Roman portrait bust? The artist has solved the technical problem of clearly suggesting the frown by inventing heavy eyebrows for his imaginary horse to contract. Real horses (as in the Charles Knight drawing right) lack eyebrows entirely.



If a lion and a horse can do it, why not an eagle? Few animals are exempt from our humanizing impulse. This fierce, frowning eagle is a relic of New York's grand old Penn Station. The lowered brow has a curved, stylized line reminiscent of midcentury streamlining. Like the lowered brow on a human face, it throws the eye below into shadow.

SUMMARY

The main constant through all the faces of anger is the lowered eyebrows; nearly all angry faces have lowered eyebrows in common. The main variables are the wideness of the eyes and the openness or tightness of the mouth. The openness of the eye, as we've seen, is the crucial intensity control, and no depiction of anger can be convincing without special attention to the detailing of the eye. In rage, the upper lid has to have a high enough arc so that it clears, or nearly clears, the top of the iris. The wider the eye, the angrier the look; but given equally wide eyes, people who are shouting mad generally look angrier than people who show anger with tight lips.

At the lowest levels of full-face anger, the eye is no more than ordinarily opened, and the combination of lowered brow and compressed lips tends to be read more as a sort of strength of character than as out-and-out anger; this kind of expression of sternness/anger has appeared most often in portraiture. Any expression with a less-than-glaring eye may be interpreted as determination or thoughtfulness.

The angry mouth is the most tricky element to pin down. In shouting anger, the open mouth can take a variety of forms depending on what's being said. The lower lip varies the most; the upper lip is always raised in a snarl. The stretched lower lip position is the one that is the most clearly recognizable and simplest to depict. In closed-mouth anger, the mouth is compressed rather than stretched, and either the mentalis or the orbicularis oris will be dominant. If the orbicularis oris is stronger, the lips curl inward on themselves and disappear; if the mentalis is stronger, the lower lip becomes extra-prominent and is pushed upward and forward. The resistance of the orbicularis oris in the upper lip keeps the lips from being pushed up into a pout.

The key elements in the anger code are: lowered brows (which must drop below the top edge of the upper lids); widened eyes (to appear glaring, the iris must be no more than a quarter covered by the upper lid); and an active mouth, either open and showing lots of teeth or closed and tight.

The expression of joy is not only pleasant to look at, it's efficient. All the changes in the face below are the work of just two muscles, the zygomatic major, which pulls on the mouth, and the orbicularis oculi, which narrows the eye. This team action is the essential mechanism in the smile; unless both muscles are active, we don't look happy. Both muscles contract in even the slightest shy grin.



RELAXED



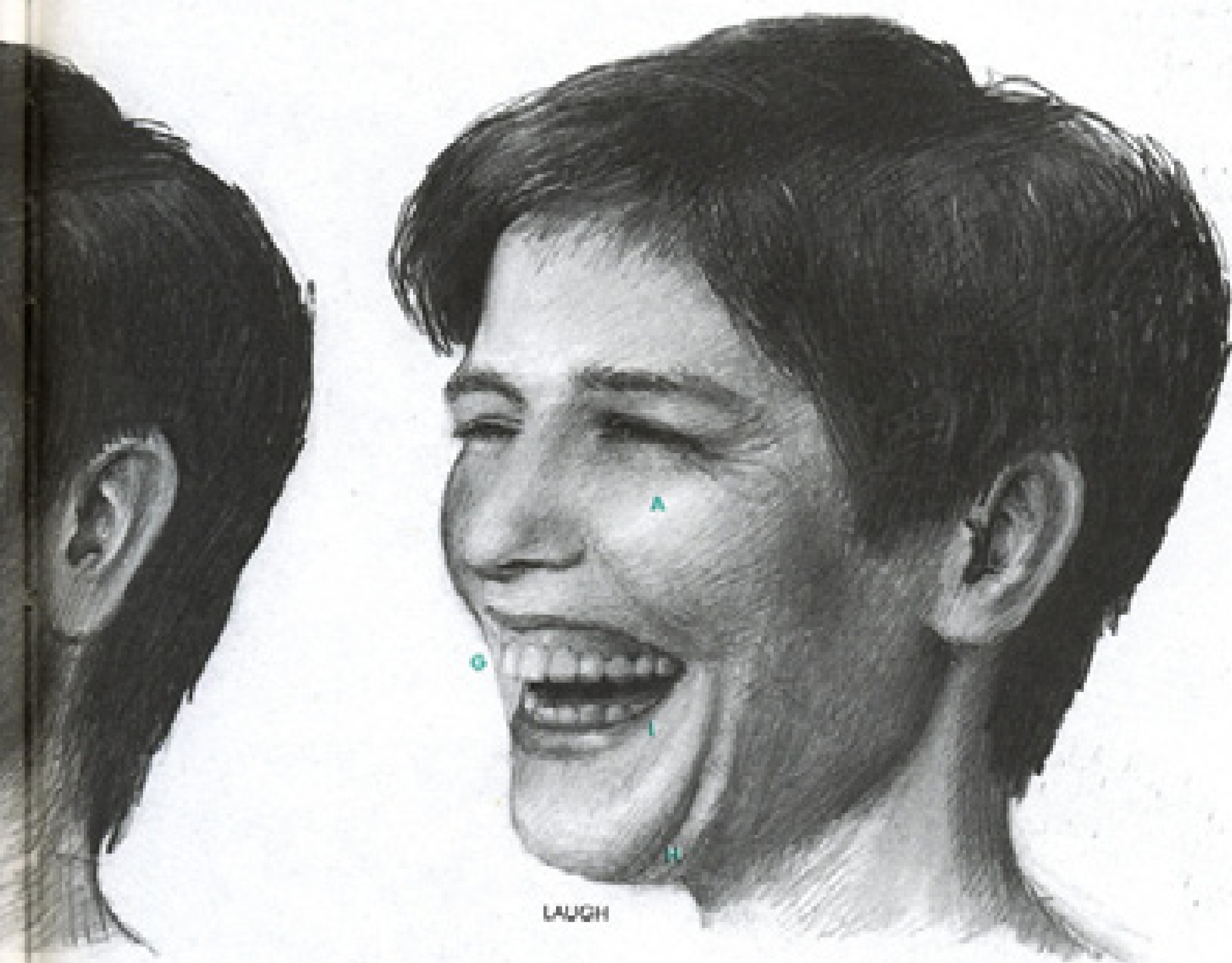
SMILE

THE EYES

These faces show the link between the degree of eye narrowing and the action of smiling. The laugh produces the most squint; a slight smile produces less of a squint; the relaxed face none at all.

When we simply smile, a weak contraction of orbicularis oculi is always triggered, preparing for a laugh that never comes; compare with relaxed eye (left). The lower lid bulges, shortens, and rises up on the eye, covering part of the iris; crow's feet wrinkles appear at the outer eye corner; cheek bunches up below eye, with smile-shaped wrinkle between cheek and lid.

In the laugh, the eye is closed more from below. The upper lid moves downward only slightly; the lower lid tightens and slides further up the eye. The lid's direction may even seem to reverse and arc upward slightly. Crow's feet deepen. The nasolabial fold swings further out than in the smile, and the cheek tightens more, making a sharp highlight (A).



LAUGH

THE MOUTH

When we begin to smile, the cheek swells and the skin on the surface tightens. The thickest bulge is the “apple” form centered at the level of the nose wings (B). The bulge has steep edges above (C) and below (D), a gradual dropoff at (E) and (F). This form is less full in insincere smiles (without squint).

This relaxed mouth has an arched upper lip, so the smiling lip will ride higher than usual on the teeth.

The jaw drops in the laugh, stretching skin. Note straighter outline (G) with “hollowed-out” look. The chin moves down and back, pushing up “chinstrap” folds between chin and neck (H). The mouth is more stretched in the laugh. As a result, the laughing lips, particularly the upper one, are more thinned and stretched; upper lip has also slid further up the teeth. The lower lip is less changed—the sharp highlight indicates a tighter surface. Counterfeit laughs often lack this level of lip-thinning. Inner outline stays much the same from the smile to the laugh except for sharper angle (I) where outer leg turns upward.

JOY: LAUGHING

In spite of the differences in age, sex, and body type, virtually every major form in the face of the elderly gentleman is repeated in the face of the woman. Notice how laughter pulls the mouth and its region tight against the skull, showing the cheeks out of the way.

- A. Eye closed with mild force; prominent bulge below.
- B. Steep edge of cheek.
- C. Nose wings pulled upward in laugh, not in smile.
- D. Deep, angled edge.
- E. Lips and skin around mouth follow teeth.
- F. Chin is smooth.
- G. Chinstrap folds.



1. Action of orbicularis oculi.
2. Action of zygomatic major.

JOY: LAUGHING VS. CRYING

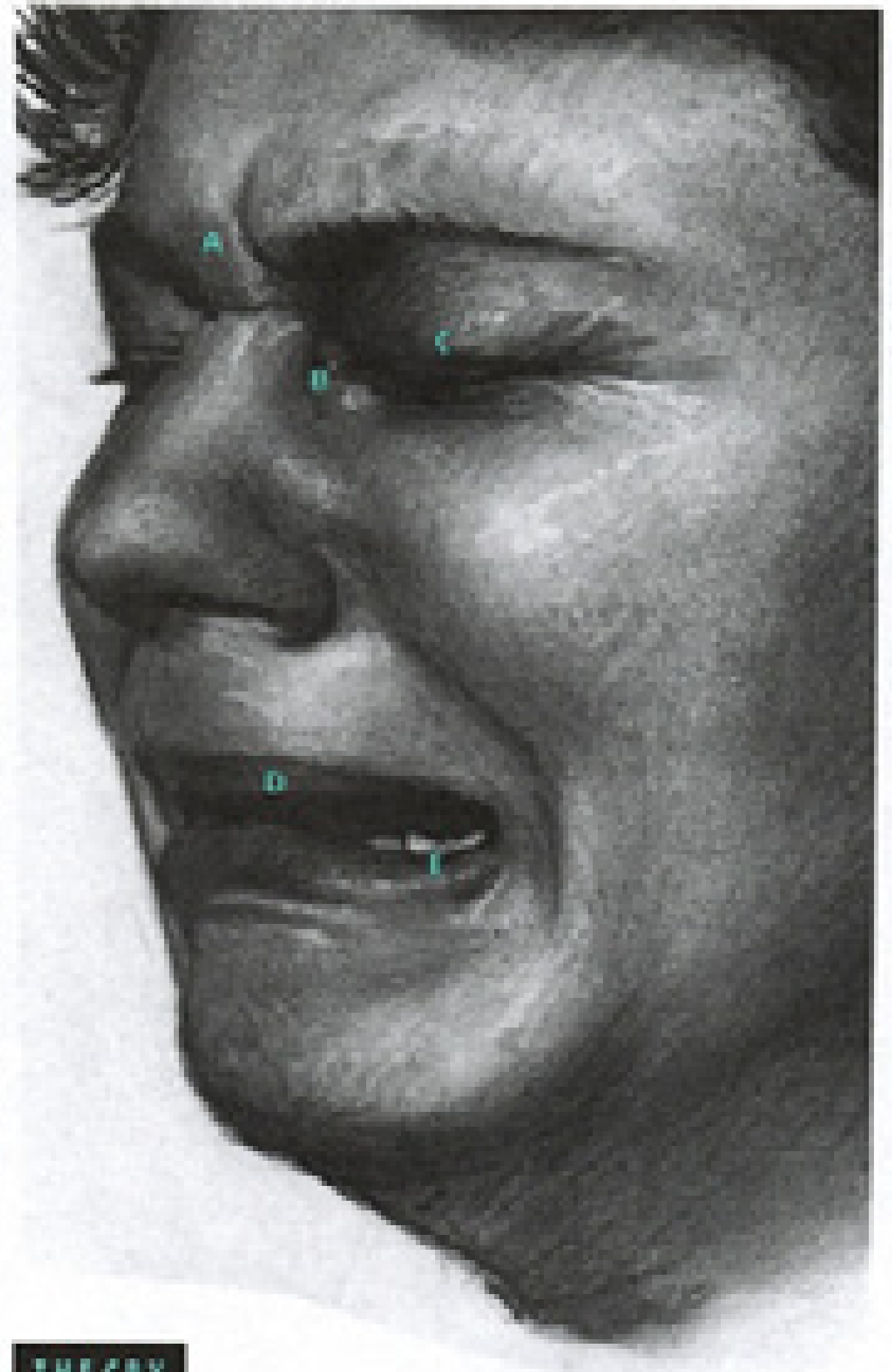
In the broadest sense the laugh and the cry are similar—both are convulsive, vocal actions that drop the jaw, stretch the mouth, and squeeze tight the eye and cheeks. But the differences, particularly the degree of tightening around the eyes and the shape of the mouth, are usually dramatic enough to make the distinction clear. The look of the cheeks is quite similar, but the cry has harsher lines around the eye and a flatter line to the lower lip.

The reflexive closing of the eye in the laugh is necessary to make the laugh appear genuine and is gentler than the closing of the eye in a crying face. The laugh is gentler because only part of the eye muscle is contracted—the upper portion is relaxed.



THE LAUGH

- A. Forehead smooth, brows relaxed.
- B. Eye gently squeezed shut, upper lid moves less.
- C. Mouth shows upper teeth from lip to base.
- D. Mouth corner sideways and back toward ear.
- E. Lower lip shows tips of teeth only, and none in corner.



THE CRY

- A. Corrugator contracted, frown lines and lowered brow.
- B. Stress pattern of eye wrinkles, inside and out.
- C. Upper lid pulled down tightly.
- D. Upper teeth show only tips or not at all.
- E. Lower lip stays low, even if mouth opens wide, showing teeth in corner.



This is a less clear-cut case. The most confusing feature is the mouth, because the upper teeth show and the corner seems to be pulled up. The eyes here are the key. Intense compression of full orbicularis oculi creates a stress pattern that would never be this deep or widespread in laughter. The eye is so tight that the mouth corner is dragged upward, indirectly mimicking action of zygomatic major, which is not active.

The mouth by itself isn't quite right for a smile—the upper lip should be higher, showing full height of teeth, and teeth at (A) shouldn't show. But it's close.

JOY: LAUGHING VS. CRYING

The problem with photography is that it can capture an in-between moment, when an action is not fully resolved and then present it as the "truth." That's exactly the case here. I was there—she was laughing. But you wouldn't know it from the picture—this expression is exactly on the borderline between the look of joy and pain.



Part of the confusion is the prominent frown lines (A), which the camera has emphasized, making them seem active (they are not). Mouth is captured midway to smile position, so upper teeth (B) are not fully shown—next moment they would be. And corner (C) is perfectly ambiguous—neither angled upward enough for laugh, nor sideways enough for cry.



A similar question is posed, but much more cunningly, in this drawing by Sidney Goodman. On the surface it's a cheerful enough domestic scene, but something draws one's eyes to the man's face, so hidden in the shadows. Goodman has obscured just that part of the face where we get our clues as to the laugh or the cry. We can tell from what we see that it's one or the other: the cheeks are full and the nasolabial fold is pulled back—but ambiguity remains. A related study seems to reveal what the artist had in mind (left). With more detail in the shadows, the expression is identified—a rather pained grimace, with contracted brows and tight mouth.

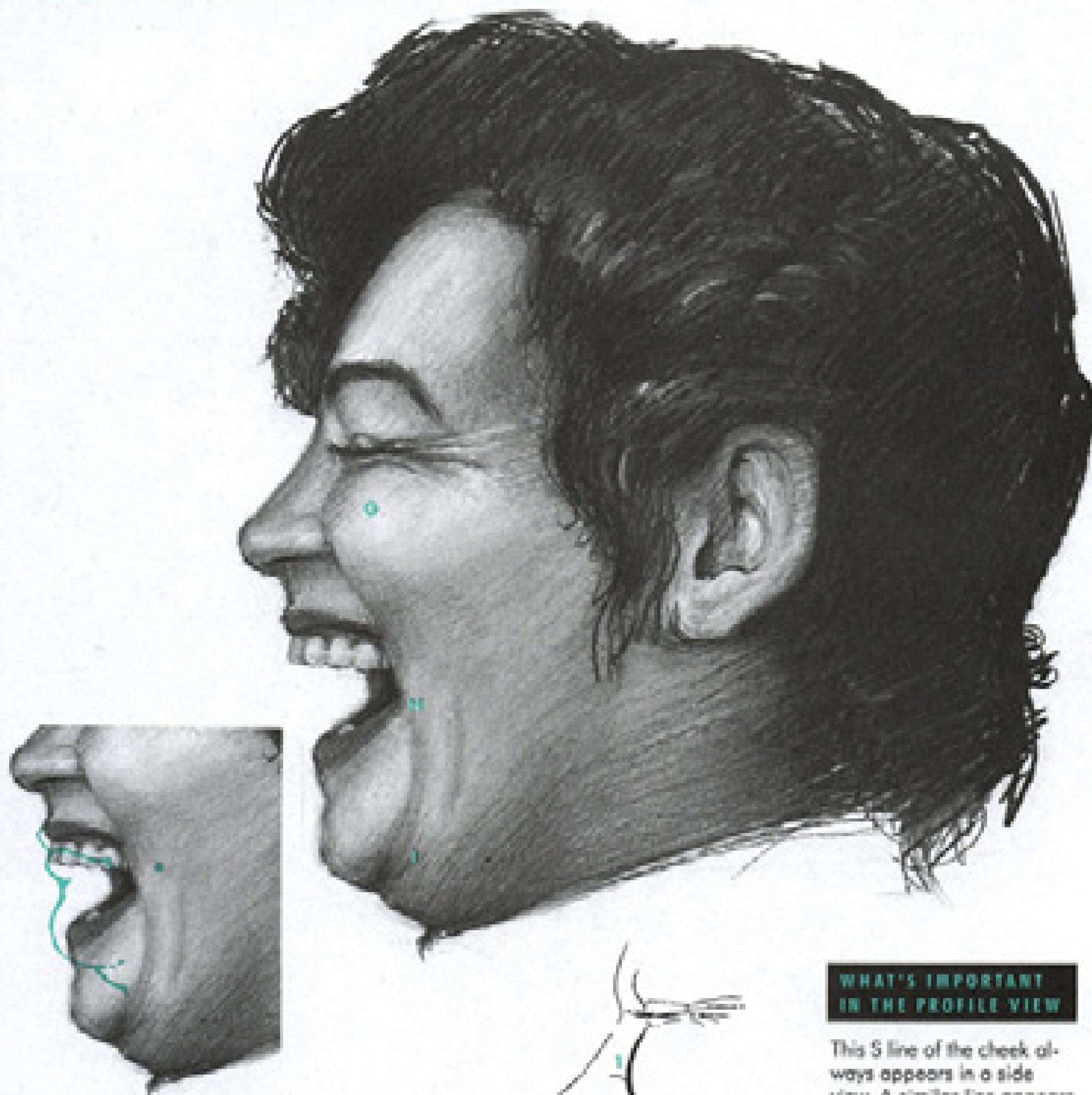


EYES AND BROW

- A.** No muscle contraction above lid line, so brow is relaxed, smooth.
- B.** Lower lid slides up on eye, meeting upper lid halfway—higher than when eye simply closes.
- C.** If action is strong enough, some wrinkles may form from inner eye corner.
- D.** Crow's feet curve around to side, fade out; one at level of lid is usually deepest.

CHEEKS AND NOSE

- E.** Strong contraction of orbicularis oculi pulls up on wings of nose; nose broadens as well.
- F.** Cheek is highest, roundest, as at point **G**.



RELAXED VS. LAUGHING PROFILE

THE MOUTH

- H. Outer part of lower lip must rise at steep angle when jaw drops.
- I. Chinstrap cords mark turn from front to side—dimple is on the side; chinstrap actually wraps underneath chin in the laugh, not in smile.
- J. Mouth widens in laugh, even more than in smile.

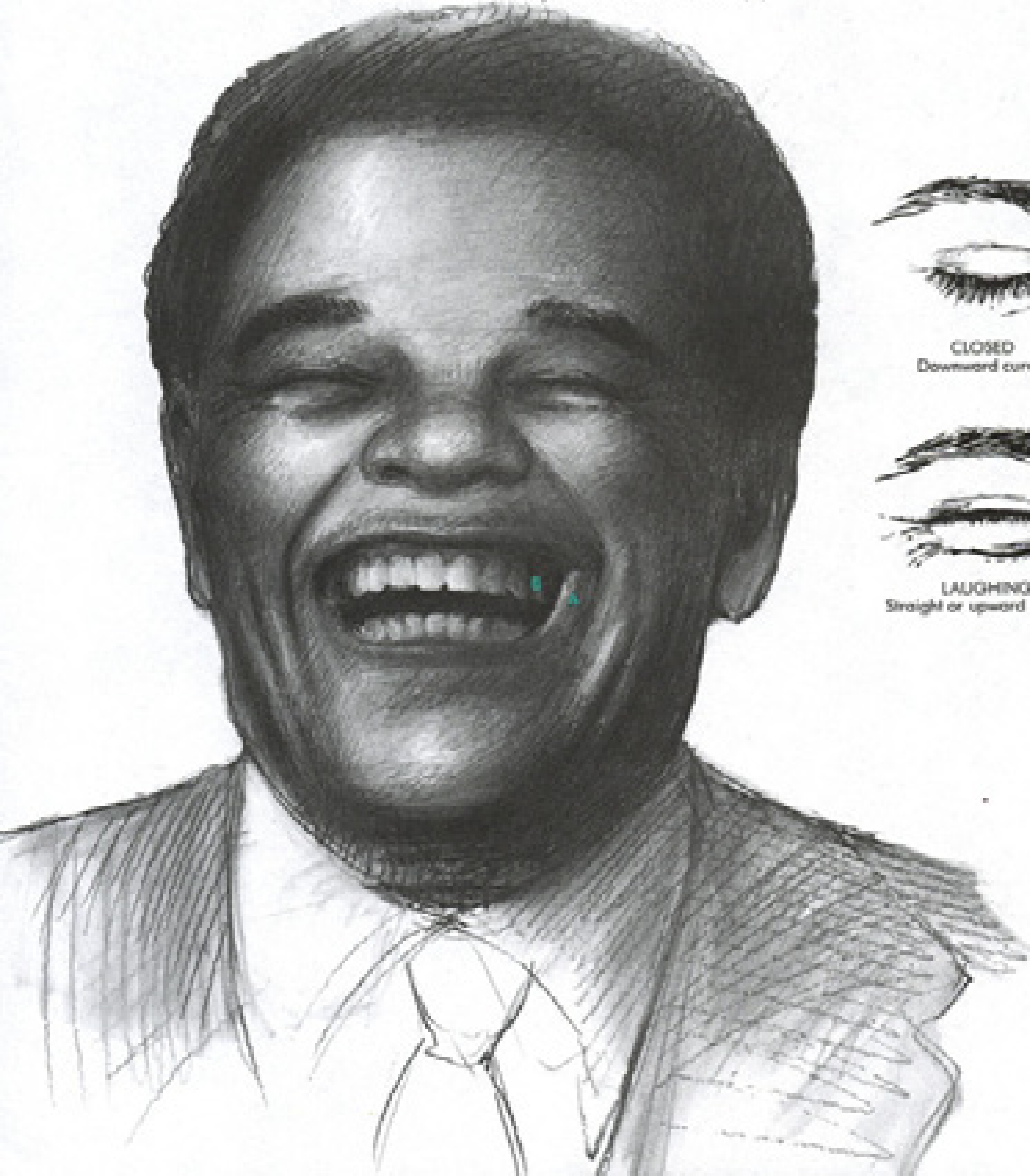


WHAT'S IMPORTANT IN THE PROFILE VIEW

This S line of the cheek always appears in a side view. A similar line appears from the side in the smile. Section 1 represents the edge of the rounded cheek, section 2 the nasolabial fold, and section 3 the edge of the cord that frames the chin. Dimple 4 runs parallel. Line indicates closed position of chin; dot is location of corner of mouth, hidden by cheek. Relaxed corner of mouth indicated by line.

JOY: THE LAUGH

Throwing the head back in laughter is a natural reflex, the exact opposite of the forward slump of sadness. Lash line in laugh is exactly midway down the eye; when the eye shuts normally, the upper lid drops much lower, making a downward curve. A continuous crease runs from nose to chin in the laugh as in the cry, or in shouting anger, but in the laugh it gets shallower as it approaches the nose. Deepest part of crease is at level of mouth corner. Sharp inner edge always appears at (A), and it often has a strong light against the dark of the mouth. Teeth fade into shadow well before they reach corner of mouth (B).



CLOSED
Downward curve.



LAUGHING
Straight or upward curve.



Three very different laughs. Only the doubled-over man is drawn with an uninhibited laugh. When we're convulsed with laughter, we're liable to make any number of spasmodic movements. The deepest undercut under the bunched-up cheek (A) is a key to the laugh and broad smile. The lash line is correctly curved upward at (B), an important detail compared with the lash line at (C). The second man's smile (right, center) is more of a polite titter. He's not doing as much, and his lash line is curved down, suggesting an eye that's simply closed, not contracted closed. The last gentleman's laugh (right, bottom) is the least wholehearted. His mouth is barely widened, and his eyes are open and observing. When we're really laughing, we're not looking at anything.



Not only did the Veracruz culture in Mexico produce large numbers of ceramic figures with this wholehearted laugh, but a great many of them also have their tongues sticking out. Most representations of laughs and smiles in so-called primitive art are quite attentive, as this one is, to the straightness of the lower lid. A great deal is also made of the crucial thickness of the cheeks and the sharp crease below.

JOY: OVERJOYED

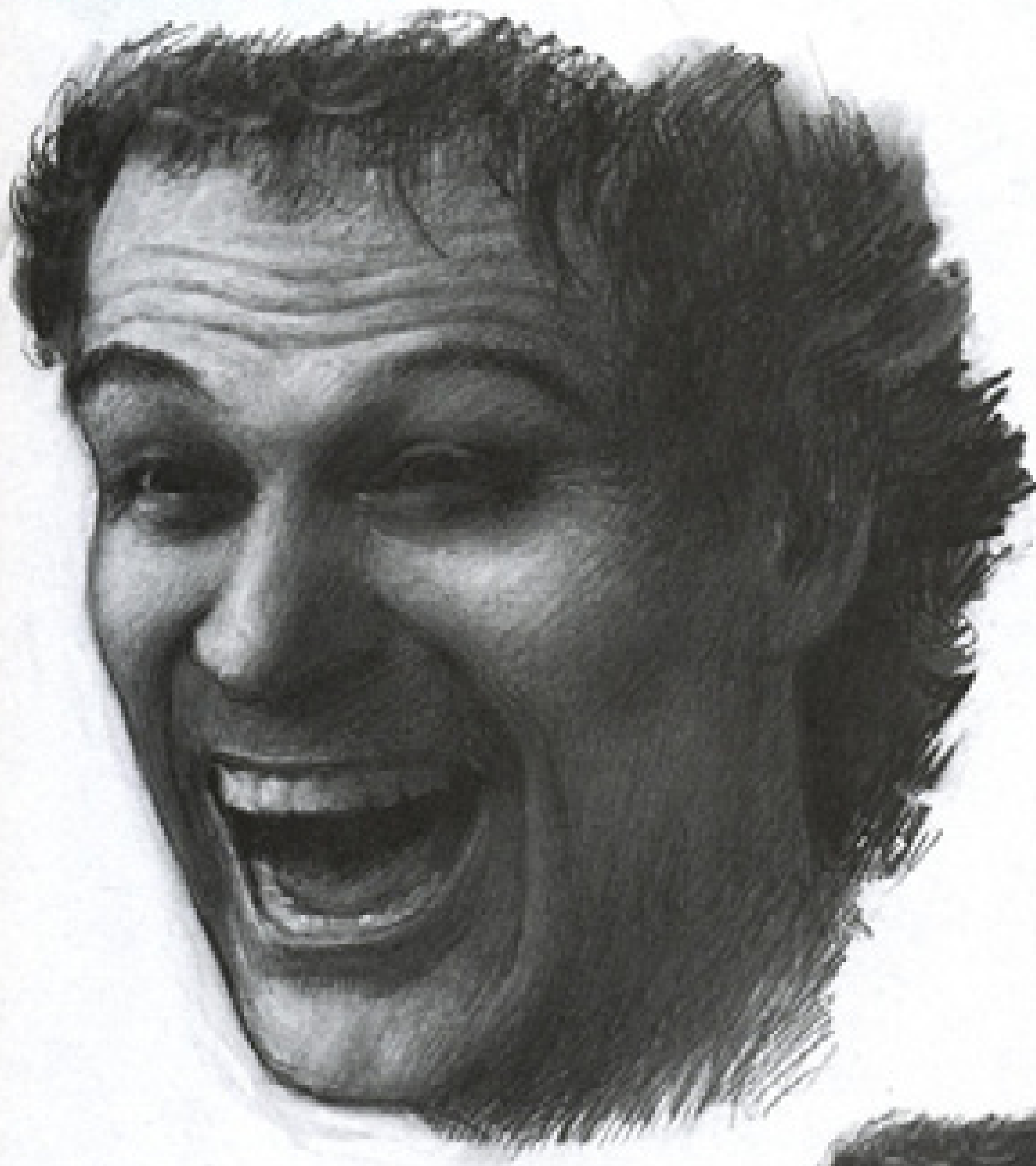
States of high spirits, like those of the people pictured here, are also states of high energy; when we're sad or depressed, our energy seems to ebb away, and the body and the face sag. Being overjoyed is almost, as the word suggests, too much for the nervous system to handle. The overloaded nerves pour the energy into frantic physical action: overjoyed people shout, jump about, throw things in the air. The laugh is stretched to its maximum; in the man's face (opposite), his eyebrows are literally dancing for joy.



More than a laugh, this is the face of someone who's screaming with joy. The smile dominates the shout. These are some key details:

- A.** Her jaw is dropped as far as it will go; mouth appears longer than wide, although it is widened.
- B.** Cheek line almost ruler-straight; stretches from cheekbone to jaw.
- C.** Nose-to-mouth crease is deepened by laugh and by opening of mouth, so it's at its deepest.
- D.** Tightening of orbicularis oculi emphasizes ball of eye and crease below; lid line curves slightly upward.
- E.** Strong lighting defines edge of ball-shaped bulge of smile.
- F.** Teeth move from light to shadow exactly the same as surface above—both have same curve.

JOY: OVERJOYED

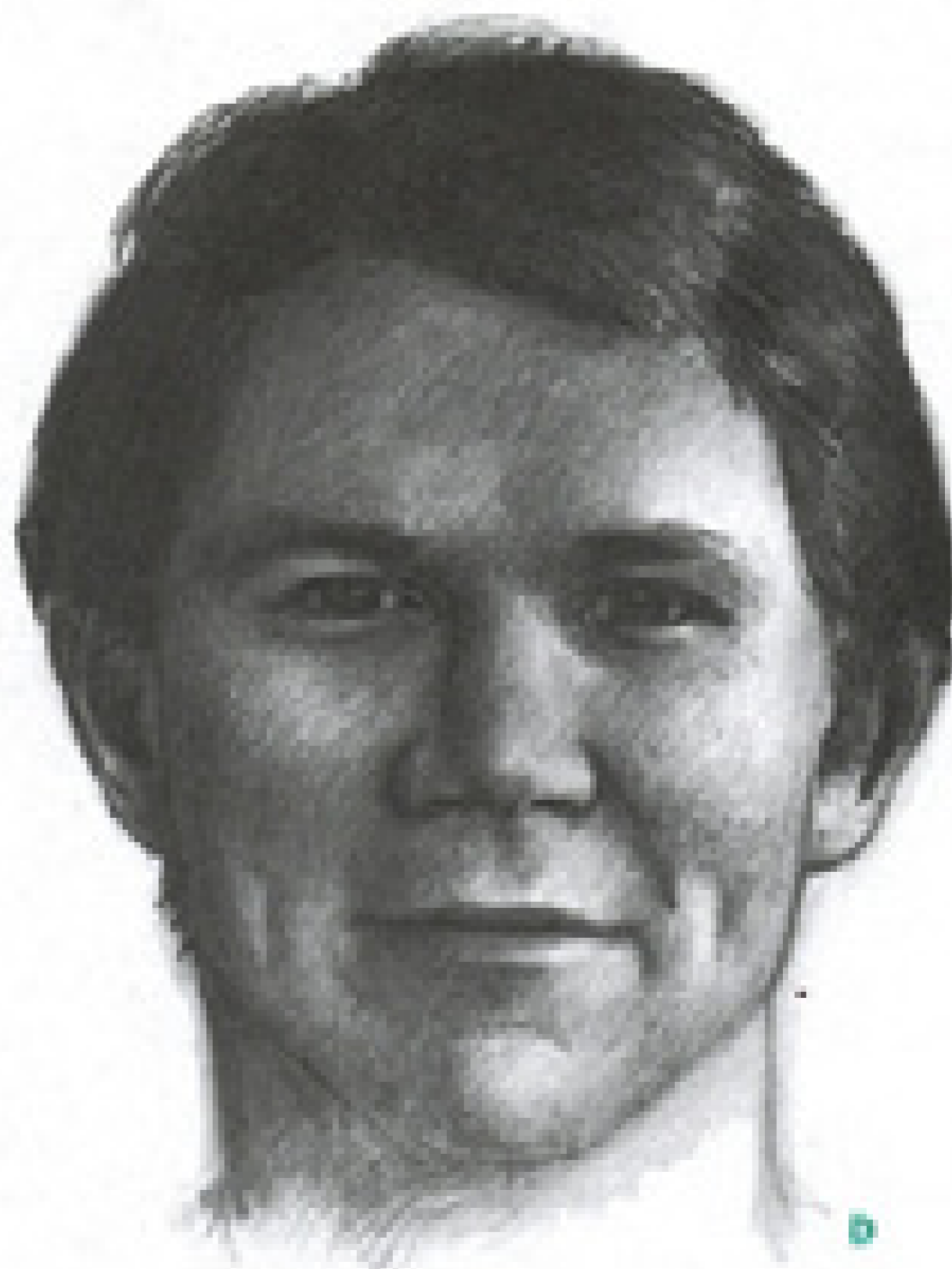
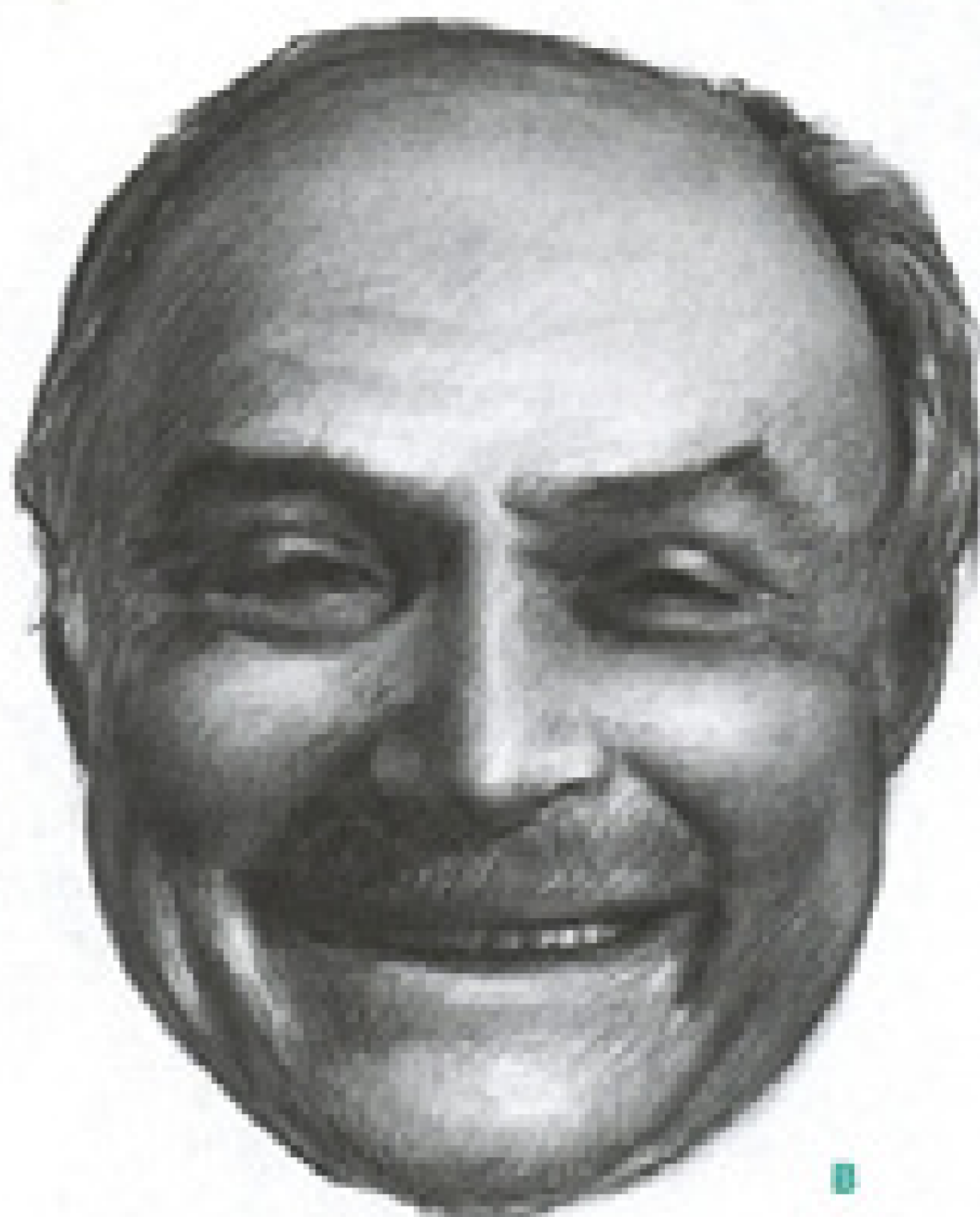


The face of a baseball player after his late-inning hit won a championship game. The raised eyebrows are dancing; the frontalis, which lifts the brows, is ordinarily relaxed in expressions of joy. So strong is the contraction of the frontalis here that it's pulled up the upper lid along with it. Otherwise, his eyes would have been closed, like those of the woman opposite. Upper teeth show, but only tips of lower ones are exposed.



- A.** Action of frontalis.
- B.** Action of orbicularis oculi.
- C.** Action of zygomatic major.

JOY: THE SMILE



THE WHOLE FACE

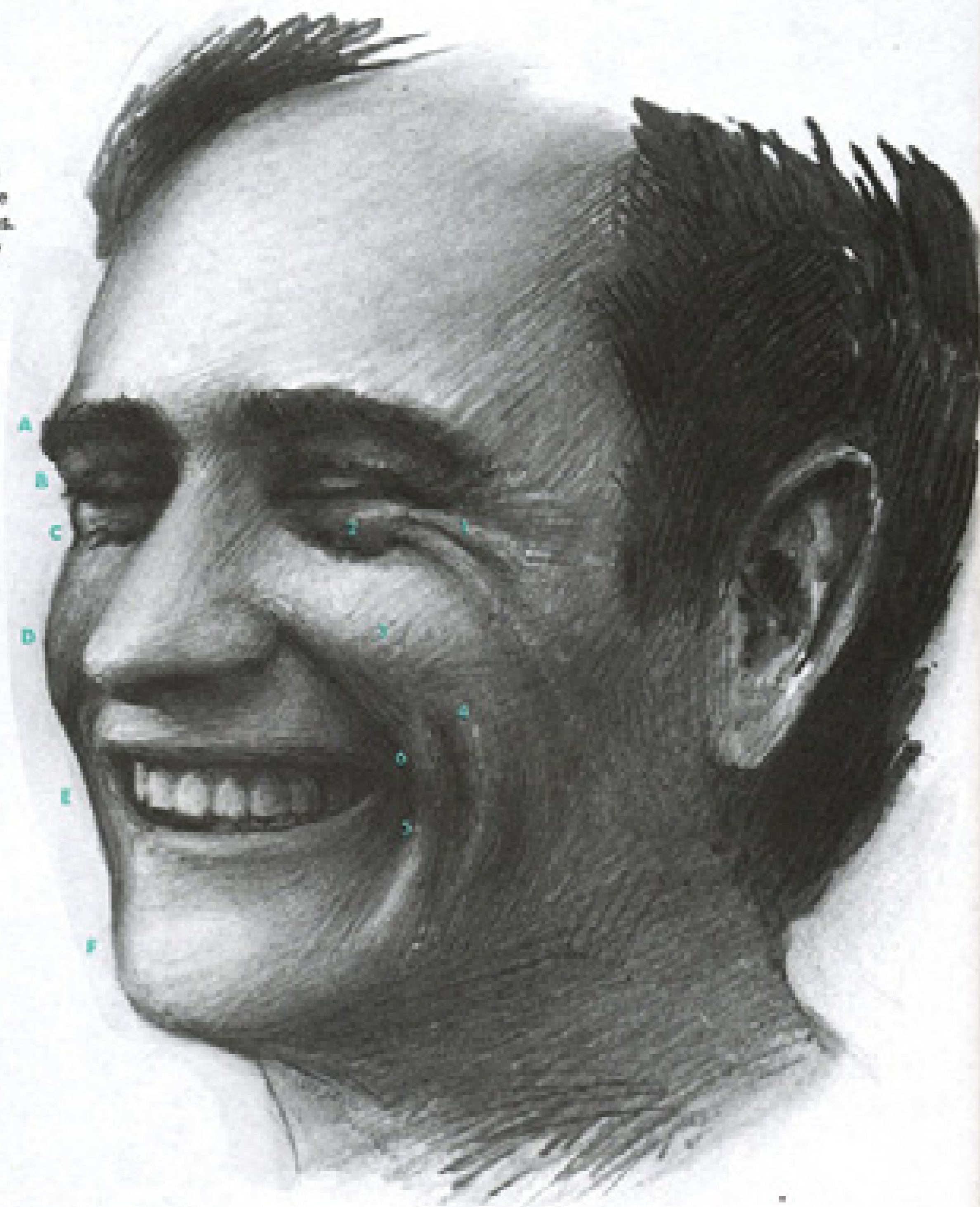
The action in the lower half of the face is matched by the action in the upper in all these warm, engaging smiles. This is because of the reflex that links smiling and squinting. Pick any part of the face and notice how it changes as you move from the elated gentleman (A) to the pleased man

(D). The lower lid steadily slides down the front of the eye; the cheeks slowly lose their roundness. The challenge in depicting the smile is to keep the parts in harmony and to think of the whole face as smiling; there really is no one part that is more important than any other.

JOY: THE SMILE

ELATED

You can't be any happier than this and not be laughing. The elated grin stretches the lips as far as they'll go; the wrinkles pile up ahead like shock waves. His wrinkles are unusually deep—some faces are more susceptible to wrinkling than others.



LANDMARKS ON THE OUTLINE

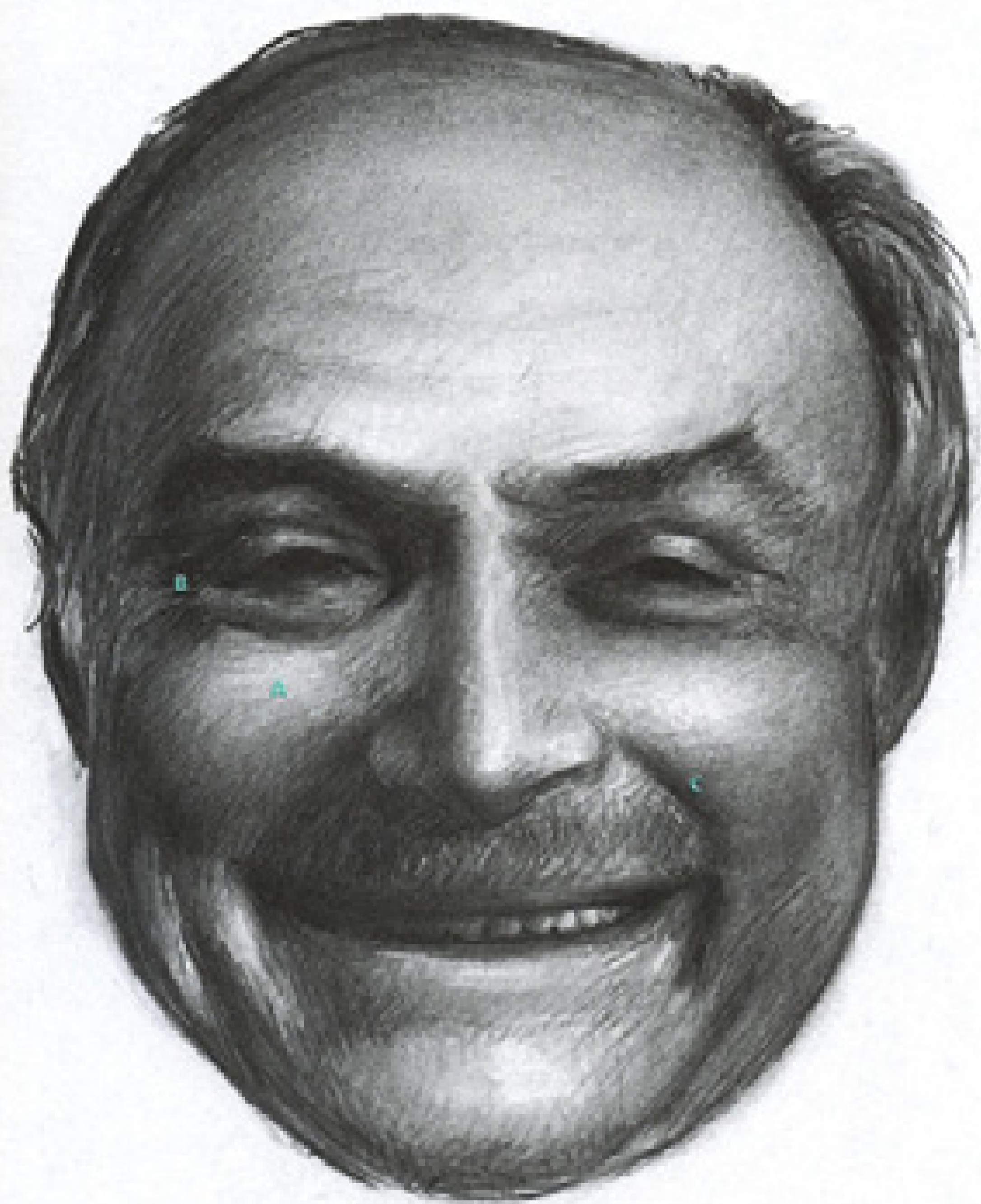
- A. Eyebrow ridge.
- B. Edge of bony orbit.
- C. Curve of the fullness of lower lid.
- D. Curve of the fullness of cheek.
- E. Stretched plane between cheek and chin.
- F. Smooth chin.

LANDMARKS ON THE FACE

- 1. Crow's feet.
- 2. Smile-shaped fold, cup-like form of lower lid.
- 3. Ball-like form in full cheek; centered here (focus directly out in three-quarter view).
- 4. Dimple falls from bottom of ball of cheek.
- 5. Cord of cheek frames smile, links with nasolabial fold above.
- 6. Widened mouth in smile falls under outer corner of eye; relaxed mouth would be under center of eye.

JOY: THE SMILE

The broad, exuberant smile usually cannot be produced on demand. Pulling the mouth into a smile is easy, but contracting the muscle circling the eye is not. Rounding of the cheeks, narrowing of the eyes, and the creasing surrounding the mouth are most intense when both muscles are active.



THE TWO MUSCLES OF THE SMILE

The actions of orbicularis oris and zygomatic major are both separate and overlapping. Orbicularis oris alone tenses the lower lid and narrows the eye. Zygomatic major alone widens the mouth. But both muscles bulge the cheeks (A), create wrinkles around the eye (B), and deepen the nasolabial folds (C). Together they create stronger forms than either would create alone.



HAPPY

Eye detail is not important in the depiction of the exuberant smile; the shape of the eye is. The lower lid here is nearly ruler-straight, narrowing the eye from below (D); from above, the upper lid is slightly lowered. The shape that results, with its full lid and wrinkle below, is the eye of joy. The narrowness of the smile here is unusual—his lip muscles may be tightened slightly, keeping the upper lip from rising further up the teeth.

JOY: THE SMILE

THE UP-CURVED LOWER LID

The tightening of the lower lid is an especially important part of the expression of joy. Like a line of latitude around the globe, the lower lid will follow the ball of the eye no matter how tight or loose it is. When relaxed, the lid dips downward; when tightened, it rises toward the middle, or "equator" of the eyeball. Though it never rises above this equator, it appears to curve upward when the head is tipped back. This is clear in the face of the smiling little girl. The Japanese mask has precisely the same eye shape, and even though it is somewhat exaggerated, its effectiveness is obvious. The planes of the cheek are also clear. I particularly like the stylized little dimples on either side of the mouth, and the stretched and flattened nose.



"The smiling angel" (right) is the popular name for this thirteenth-century stone figure from the Cathedral of Rheims in France. His neighbor (far right) also wears a strong expression, quite the opposite—the brow of grief.



JOY: THE SMILE

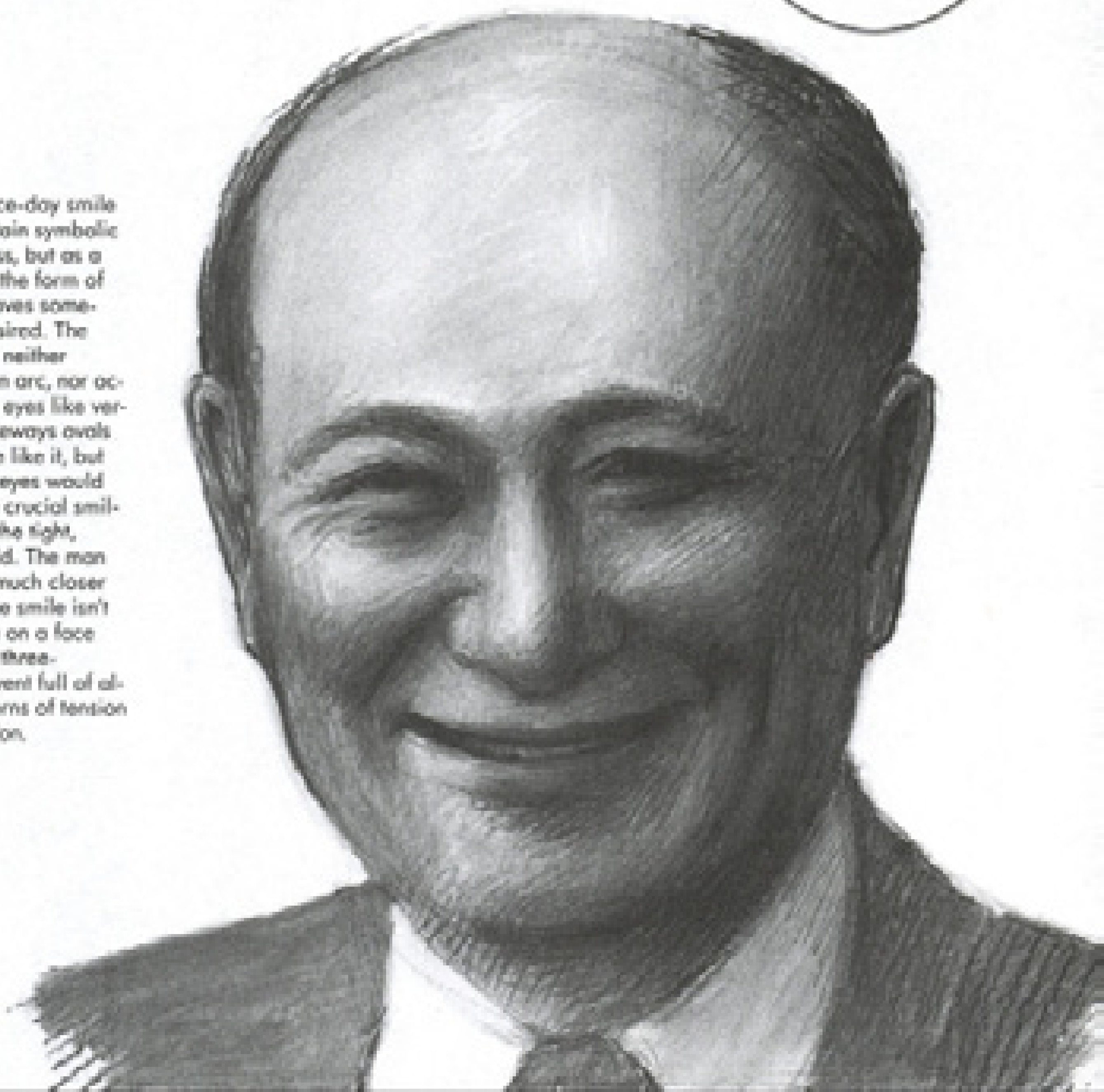
This Punic mask, from the territory that is now Tunisia, has a charming smile. The backward curve of the lower lid (A) is an interpretation of the detail (B) that appears on the face of the smiling little girl (opposite, top). The cheeks and mouth of the mask bear a resemblance to those of the smiling man (below). The smiling upper lip can be up-curved as on the mask and below, down-curved as on the little girl, or straight across.

If you squint and look at the man's face below, the shadow pattern that you see summarizes all the important forms of the smile: the thinned eye with raised lower lid, the smile-shaped fold under the eye, the cheek with its angled lower crease and roundness, the dark gap of the stretched mouth.

The have-a-nice-day smile may get a certain symbolic message across, but as a description of the form of the smile, it leaves something to be desired. The broad smile is neither curved up in an arc, nor accompanied by eyes like vertical ovals. Sideways ovals would be more like it, but even then, the eyes would be missing the crucial smiling element—the tight, raised lower lid. The man (right) comes much closer to the truth. The smile isn't simply a curve on a face but a complex three-dimensional event full of alternating patterns of tension and compression.



The only good thing about this smile (below) is the little serifs on the end of the curve. They are an honest simplification of the dark vertical slash that often ends the mouth when we smile, which is itself the meeting point between the curve of the mouth and the frame raised beyond.





NEUTRAL FACE

HOW THE FACE CHANGES WHEN WE SMILE

This friendly, deep-dimpled smile shows clearly how radically the face changes in a smile. Though every smile is different, the basic elements listed here are part of every smile. Below is an important comparison: how the tensed-lower-lid eye of smiling differs from the simply narrowed eye.



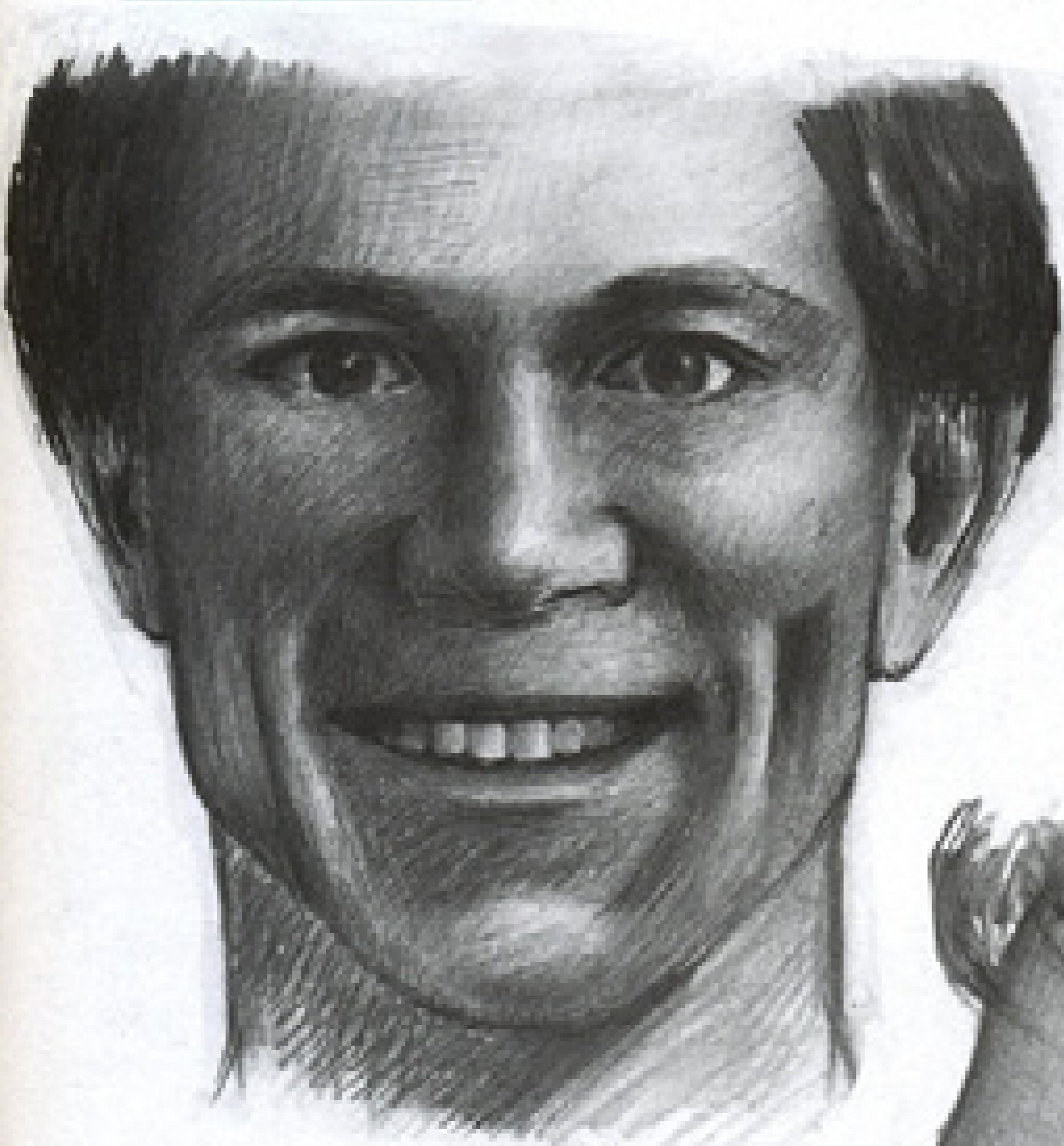
PARTLY-CLOSED EYE
Pupil blocked.



SMILING EYE
Pupil clear.



- A.** The eye narrows: Lower lid rises, upper lid drops slightly.
- B.** Lower lid swells: smile-shaped fold appears underneath.
- C.** Cheeks become full: cheek fat is bunched together.
- D.** Nose broadens: not pulled upward, as in laugh.
- E.** Mouth is framed by folds. Dimples appear beyond and are always asymmetrical.
- F.** Mouth widens into smile. Upper teeth show from tip to base.



**THE SAME SMILE
WITHOUT NARROWED EYES**

This is a composite drawing—he didn't actually pose this way. The eyes from the neutral face (opposite, left) have been added to the smile (opposite, right). Compare the effects: the loss of warmth is enormous. This smile has a glassy, odd quality.



From the side, most of the action is along the S line of the cheek. As in the laugh, it blocks our view of the mouth corner; unlike the laugh, the S line doesn't wrap around the chin but fades out early. Smile-shaped wrinkle under the eye ends in crow's feet. His dimple is unusually deep.

JOY: PLEASED

The smile of the woman on this page looks quite natural and sincere and also quite moderate. Compared to those on previous pages her face shows less muscle pull, less bunching of the cheek, and less creasing. But the changes are consistent. A second version of the same smile (right), shows what happens when changes are not consistent, when eyes and lower face don't match.



Note the softness of the crease running from her nose to her mouth as opposed to deeper crease in laugh below. Her slightly lopsided smile is common with less than full smiles. There's no rule for when action is too slight to part lips, but this is near the minimum.

The eyes that seem so natural in her laugh (right) make no sense at all in her smile. By contrast, the glare of anger can be equally well maintained in a face that is otherwise neutral—it's not linked by a reflex to the rest of the face the way the smile and the eye are linked.

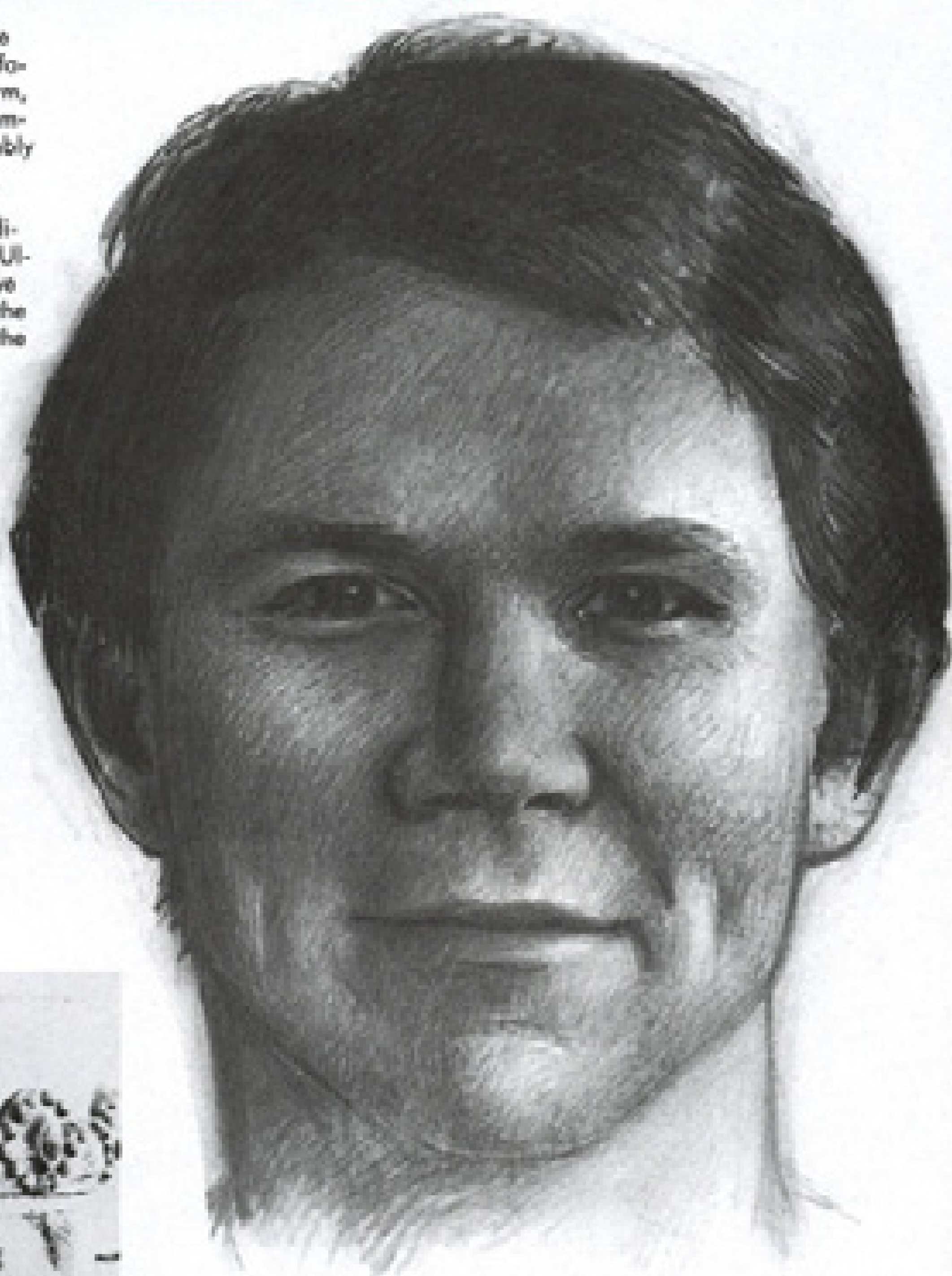


SAME SMILE WITH EYES FROM THE LAUGH

The effect is distinctly unnatural in this version of the smile, where her eyes are squinting. We have trouble placing this expression; it doesn't look like anything. Eyes that go perfectly with one stage of joy can seem completely out of place with another. The link between the contraction of the eyes—orbicularis oculi—and the degree of the smile—zygomatic major—is the key. They should always move in step with each other.

The threshold smile is probably the most mysterious and elusive of all facial expressions. Like sadness, warm, pleasurable feelings can make themselves clearly felt through remarkably small changes in the features. But while just the eyebrows can tell us someone is sad, joy requires coordinated activity throughout the face. Ultimately, it is the artist's sensitive eye that decides when the little curl in the corner of the mouth or the look in the eyes is right.

The mouth is the most subtle form—lips are slightly stretched and narrowed, and LBL has a sharp terminal angle (right) and deepened dent at mouth corner. All other effects of the broad smile are still present—just barely.



Focusing on volume, this medieval artist has overemphasized those parts of the face that become rounded in the slight smile. The smile is no less appealing for the exaggeration. Shadow spots at (A) and (B) probably suggest the smile as much as the shape of the mouth (which here could be just a trifle wider).



Why do some portrayals of smiles strike a sympathetic chord and others leave us cold? With the slight smile, the dividing line between the charming and the vacant is impossible to precisely define.

UNSUCCESSFUL EXAMPLES

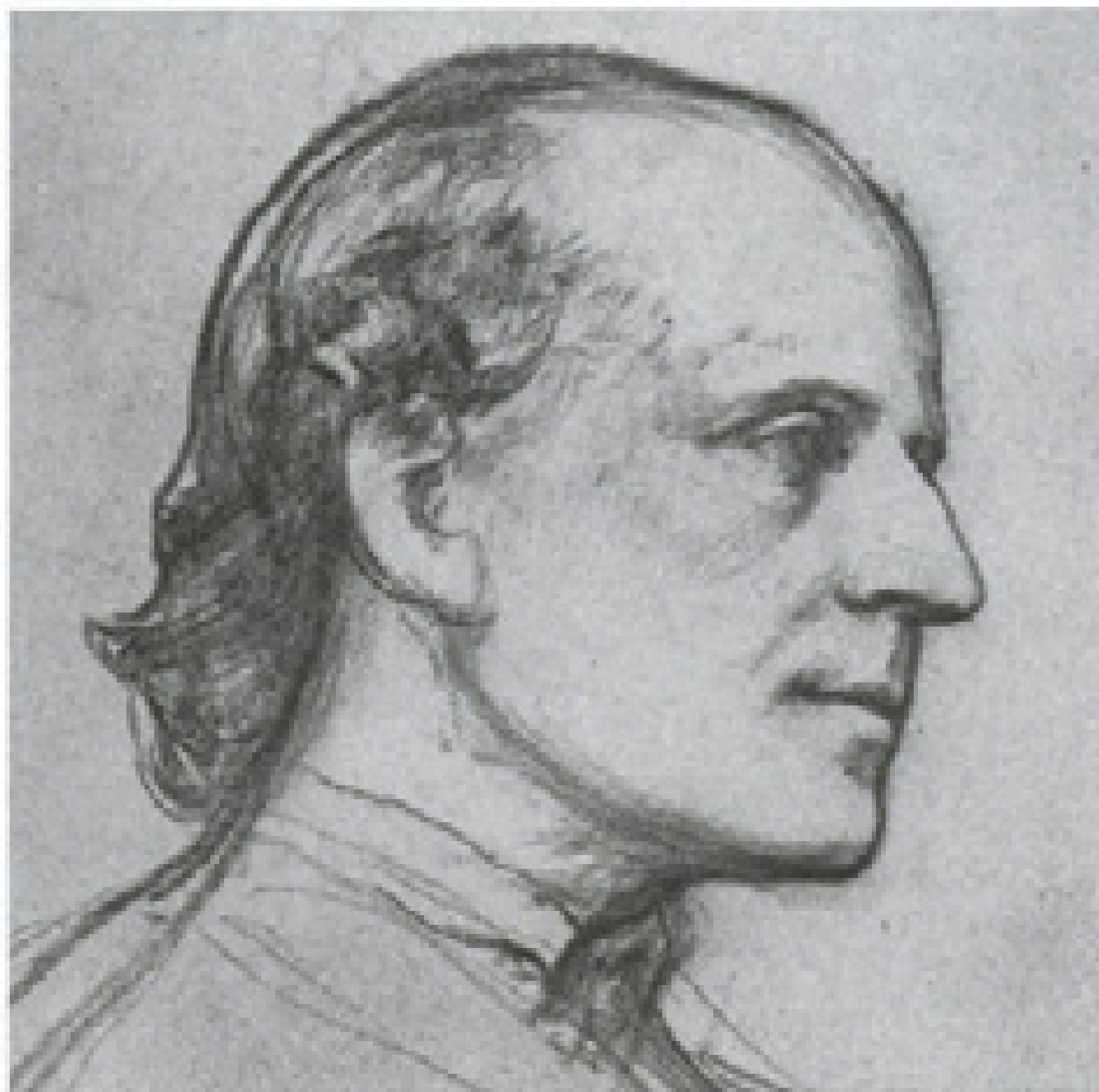
Many a portrait artist has hoped to obtain a smile simply by twiddling with the corner of the mouth. The fallacy of this approach is illustrated by this charming but rather lifeless portrait of a young woman by John Vanderlyn, an early nineteenth-century American painter. This slight smile is not accompanied by any changes in cheeks and face. We never see space below iris (A) in a true smile; it's covered by a tensed lower lid. These missing features seem to leave the smile stranded and rob it of any warmth.



The naturalistic portrayal of facial expression was not a priority for nineteenth-century neoclassical artists. Jacques-Louis David viewed his figures in a cool, remote fashion; his narrative paintings usually represent feelings with stylized, theatrical gestures. But taken strictly on its own merits, this particular smile falls short: There's a problem with the LBL; by the time it's angled up this much (A), its entire length should be tightened and straightened—the lips and LBL at (B) would be thinner, not as kinked. Angle of rise at (A) is also too abrupt; compare with Leonardo (next page). Gaze is also a handicap; her eyes have drifted apart, out of convergence.

SUCCESSFUL EXAMPLES

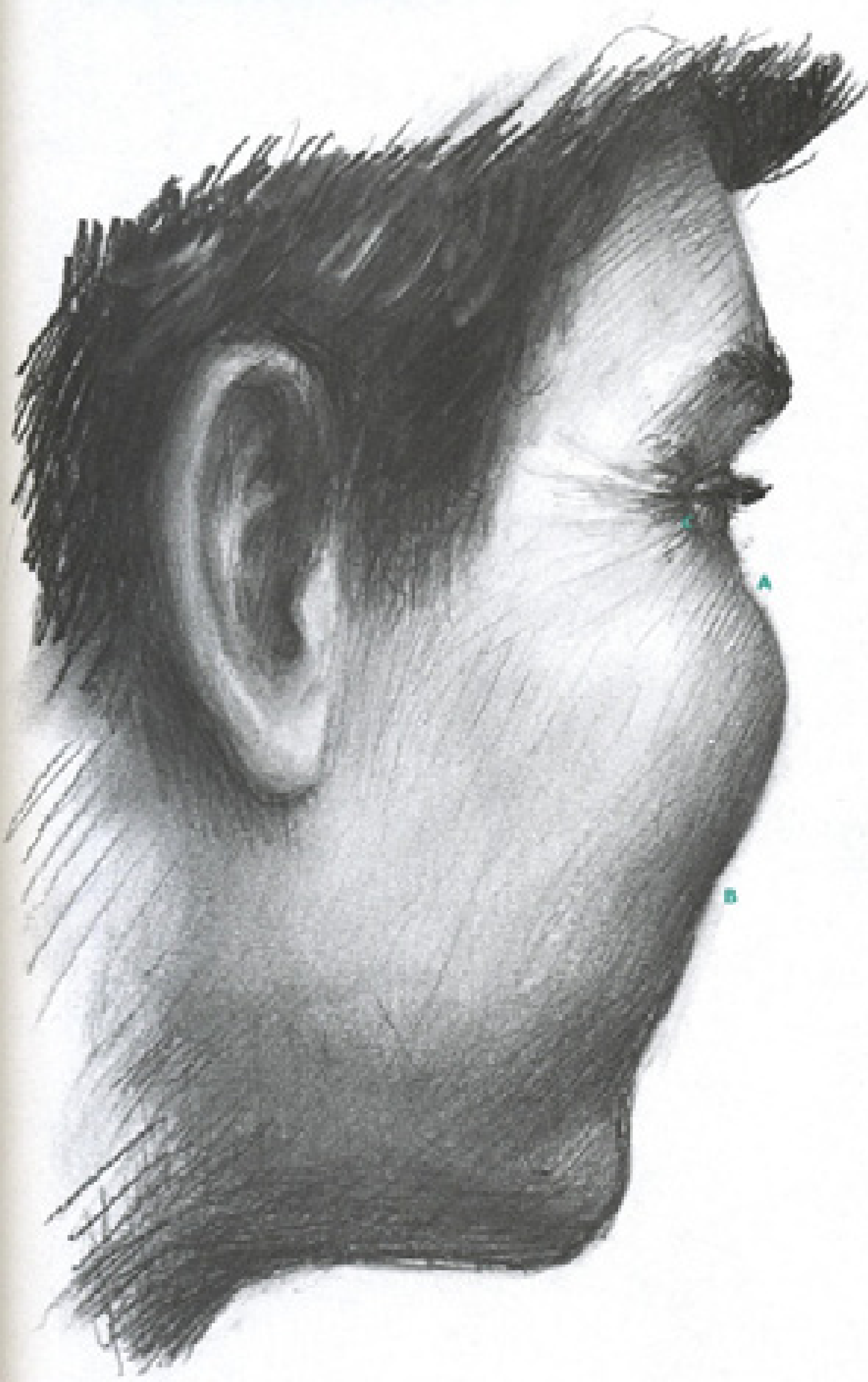
Unsuccessful smiles are easier to criticize than successful smiles are to explain. This one by the American John LaFarge has qualities that are particularly elusive. What is it that gives this smile its gentle, sensitive quality? The upraised eyes are a factor suggesting other-worldly concerns (and freezing the iris of the high lower lid); in fact, this is a portrait of a priest.



The world's most famous smile has inspired wild adulation, wild conjecture, and at least one outright burglary. The conjectures have focused on everything from the identity of the sitter (never determined conclusively) to the asymmetry of her smile (said to be the source of its mystery). What can't be denied is that it is a truly evocative expression. In the world of facial expression, slight anything is generally more evocative than the same expression in the extreme, because it leaves more to our imagination while still provoking our interest.

Portrayed is the moment of the slightest noticeable movement. LBL has just crossed smile threshold (and [B] has moved above center [A]) and begun to tunnel upward into cheek. Smile is stronger on right (slight smiles are usually asymmetrical). Shading at (C) and (D) hints at bolting of the cheeks; wrinkling of lower lid and masking of iris is consistent with mouth action. Off-to-the-side gaze adds to active, elusive quality of expression.





You don't need to see the smile to know that someone's smiling. The rounded cheek is as important to our recognition of the expression of joy as the stretched mouth, and in this view it is the smile. It's all the cue that we need. It's also helpful that there's no other expression that looks like this from behind.

The entire form from (A) to (B) has been added on to the profile. Its most projecting point is at about the level of the nose wings. Bulge fades out gently as it approaches the ear. Note also the crow's feet, which in their curving describe the forms they cross—the edge of the orbit (C) and then the top of the bunched cheek. Note also slight hollow below full cheek (B) and separate direction of chin.

JOY: THE STIFLED SMILE



One of the most endearing of all expressions, the stifled smile is the result of a failed effort to keep a smile from happening. It comes with an element of self-consciousness; we're terribly pleased but trying not to show it. Or perhaps we are; we're complex enough that we may be fully aware of how charming a smile it is. It's a tricky expression to render, because the mouth isn't in the shape we associate with a smile, and though it's enormously popular with advertisers, it almost never appears in art.



BROAD SMILE FOR COMPARISON



THE STIFLED LAUGH

It takes a truly heroic effort of the three-muscle press to try to stop a laugh, and from the looks of the soldier on the left, the smothering is going to fail at any moment. If you cover his upper face, his mouth is so compressed it doesn't look the least bit happy. The look of the mouth—completely thinned lips with bulging forms above and below—is the result of the three-muscle press with orbicularis oris dominant, similar to look of mouth in stifled anger and suppressed sob. It's what is above the mouth that makes him look so amused. The other expressions are charming too: the broad grin on the far right and the stifled smile in the center.

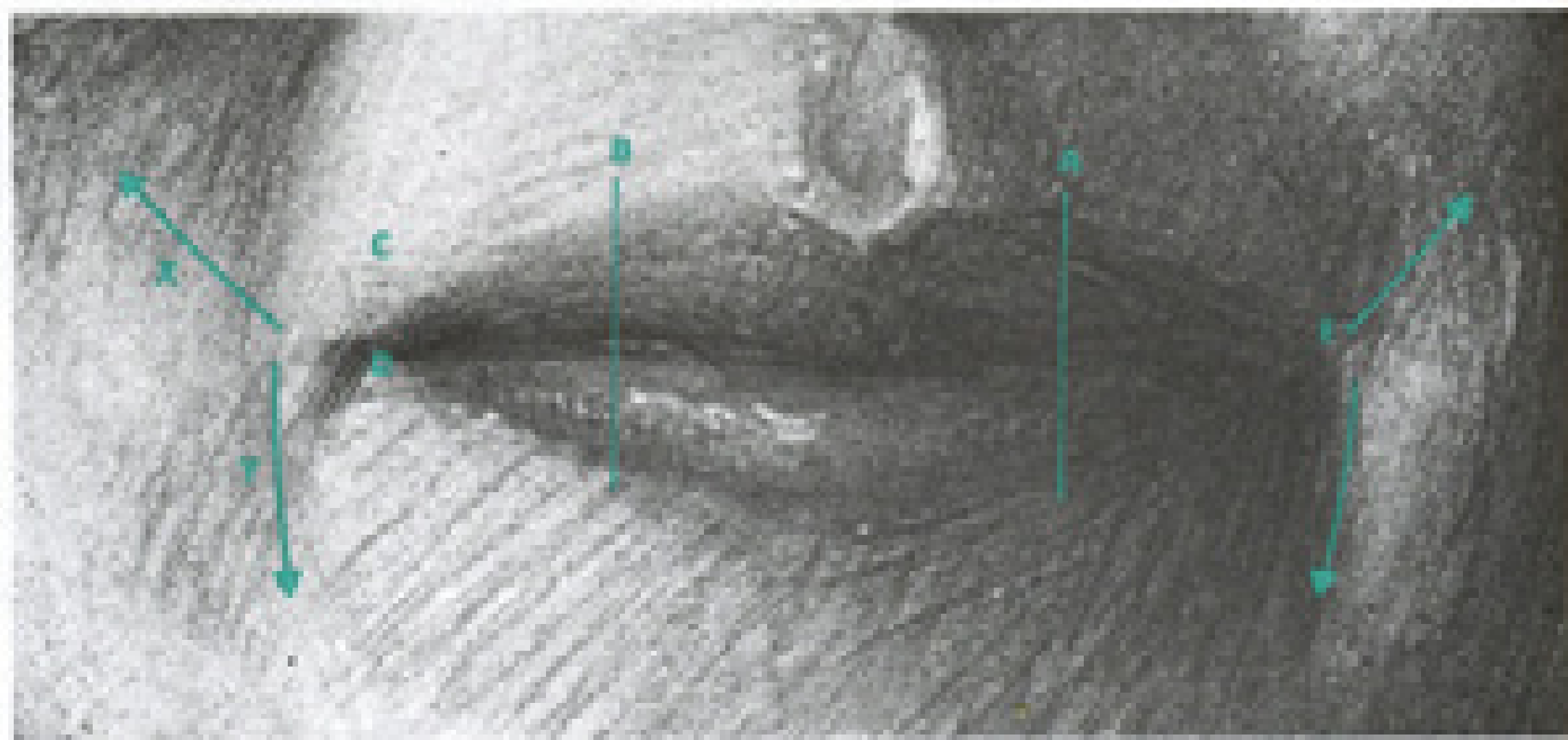
JOY: THE STIFLED SMILE

THE UPPER FACE IS THE SAME

1 is her upper face in an ordinary broad smile, and **2** is her upper face in a stifled smile. The stifled smile involves exactly the same action around the eyes and in the upper cheek as the ordinary smile—the zygomatic major and orbicularis oculi are equally active in both cases.

BUT THE CHEEKS ARE DIFFERENT

An obscure anatomical quirk shapes the cheeks in the stifled smile. The little edge at **(A)** is created when just the upper layer of the zygomatic is contracted; the lower layer is prevented from contracting by the triangularis. Every stifled smile has this soft, angled edge across the cheeks. Note also how the naso-labial fold fades out at **(B)**; it too is dependent on the lower layer of the zygomatic major.



AND THE MOUTH IS DIFFERENT

To stifle a smile, the mouth corner must be kept from rising by using the triangularis (**T**), which attaches to the corner at the same spot as the zygomatic major (**X**) and pulls it in the opposite direction. The result of the tug-of-war is a tense stalemata with these features:

1. The mouth starts out in a smile—from **(A)** to **(B)** the lips and LBL are a stretched, up-angled V, as in a closed-mouth smile.
2. And then changes direction—between **(B)** and **(C)**, where instead of rising upward, LBL continues as horizontal line.
3. Corners end up level with middle of mouth, instead of higher; just as in neutral mouth. There is a slight curl downward at **(D)**.
4. Corner is pulled deep into face **(E)** and toward the ear as in the ordinary smile.
5. Lips are narrowed and tightened by two other actions as well; the upward press of mentalis and the inward press of orbicularis oris. Neither is strong here.

JOY: THE STIFLED SMILE

This genial smile is another compromise between contradictory muscle pulls. He's smiling what would be a pretty broad smile were it not for the locking action of the three-muscle press—triangularis, mentalis, and orbicularis oris. Their pull is so closely matched to that of the zygomatic major that the LBL is left perfectly straight. But the strong action in the upper face is completely uninhibited.



- A. Narrowed eyes, tight lower lid.
- B. Smile-shaped fold.
- C. Full cheeks.
- D. Cheek cut off here in stifled smile.
- E. Deep corner, pulled toward ear.
- F. Curved folds of triangularis.
- G. Strong action of mentalis.



1. Action of orbicularis oculi—crinkles the eye.
2. Action of zygomatic major—pulls corner up.
3. Action of orbicularis oris—narrows lips.
4. Action of triangularis—pulls down corner.
5. Action of mentalis—pushes up lower lip.

IN ADVERTISING

Advertising models are forever smiling. The smothered smile, with its suggestions of conviviality and self-effacing charm, has lots of commercial potential, as demonstrated by this excerpt from a vodka ad. Her stifled smile is lovely—more convincing than the standard-issue models' smiles of her companions. Models are generally not trained as actors and have a terrible time when required to do anything besides smile—like laughing, for instance. Her lips are pressed very thin, stretched wide, with LBL slightly angled up. **A** is wrinkled chin of mentalis; break in outline of **B** only appears in stifled smile—it's where cheek suddenly stops being round.



The effect of each of these smiles is quite different; the stifled smile of the woman on the left is the one we are the most drawn to. Like a broad smile, the stifled smile is difficult to pose—if there's not feeling behind it, it doesn't work. Note parallel arcs of triangularis on the left (**A**).

THE HAPPY/SAD SMILE

The relationship of joy and distress is enormously complicated. It sometimes seems as though very young children can flow between laughter and tears without a pause for breath, and the expressions themselves—even the sounds of laughing and crying—can be quite similar. We all experience moments of pleasure tinged with grief, or sadness that is not entirely unpleasant. Perhaps the tears we shed at the theater or in the movies fall into this category, for we know that we aren't really suffering and at times even enjoy having our emotions stirred up.

There is a category of smile that reflects this finely divided balance. We've all looked into the face of someone who was smiling at us in that particular sweet-and-sour way, perhaps after making up from a quarrel or saying goodbye. We see the mouth curled up in a slight grin, and the eyes tinged with sadness. Anatomically, it's easy to see how the two expressions can coexist; the expression of sadness centers on the brows—the smile rests primarily on the lower lids, cheeks, and mouth. It's the combination of the two that produces the happy/sad look. And there's enormous difference in emotional shadings possible, depending on the strength of the smile and the level of distress in the eyes and brows. If we can recall a time when we've seen such an expression, we probably also can recall how strong an effect it can have.

Laughing Through Our Tears

In tragic, woe-is-me weeping and wailing, there's intense compression of the eyes and maximal stretching of the mouth. When people laugh or smile through their tears, the look of the cry is nowhere near as cataclysmic, and depending on the moment we look, we might see either a tearful smiling person or a crying person who looks as if he or she might break out smiling at any moment.

JOY: HAPPY/SAD



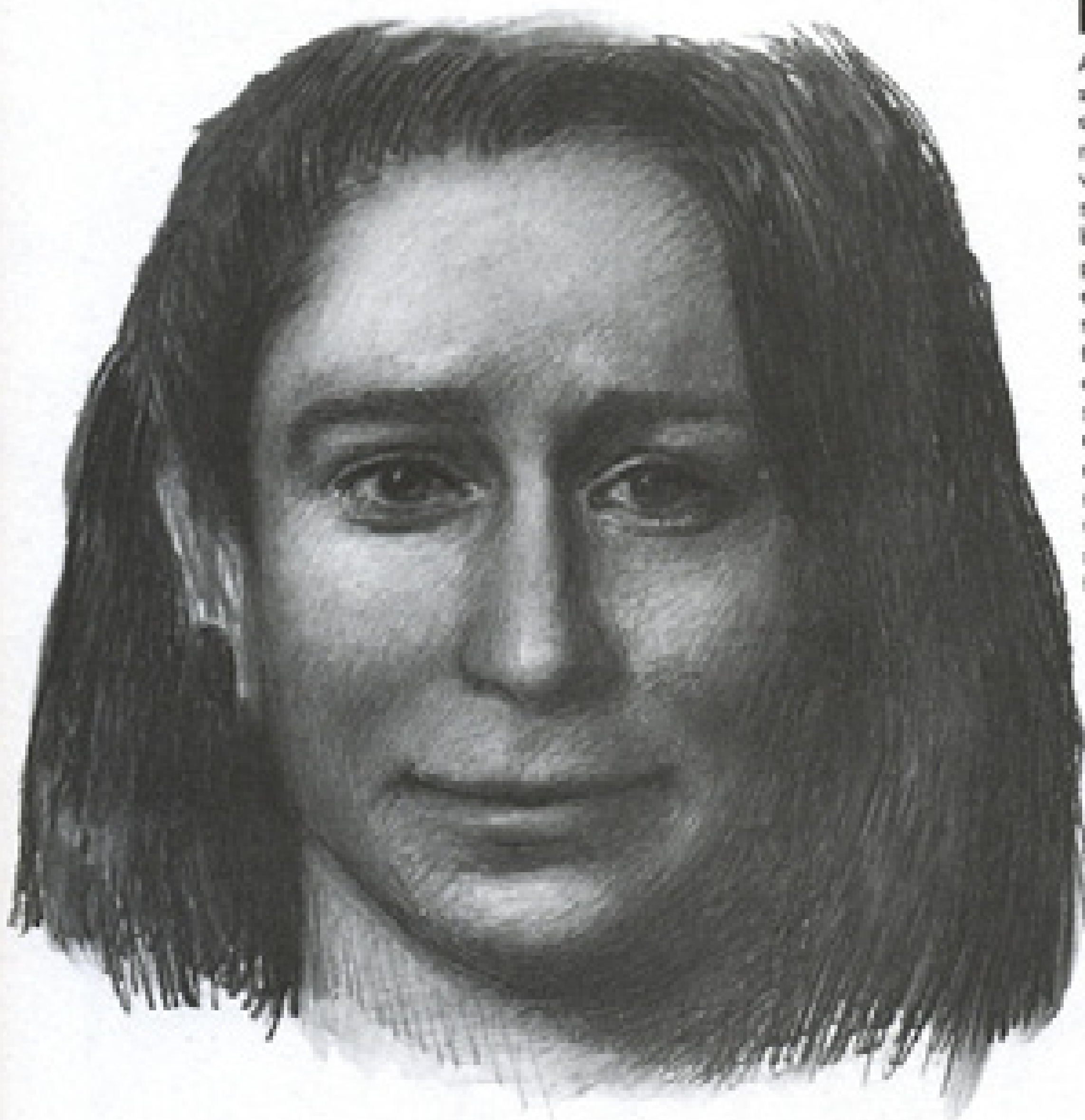
"Gentle, sensitive face of a prince or cultured young nobleman, often one who died in battle." So the Noh mask above is described. Here there is nothing particularly subtle about the suggestion of sadness in the upper face—the eyebrows with their strong upward slant and kink are quite straightforward. The smile is also clear. Although every Noh theater in Japan uses the same characters, every mask is unique. Other versions of this mask, called *Chujo*, establish the sensitivity and gentleness of the character with the same happy/sad formula, but with both the smile and the sorrow less pronounced.



HAPPY/SAD

The emotions of pleasure and distress have a complicated relationship. There are certain circumstances where we experience both—intensely—at once, as when some tremendous passage from one part of our life to another is occurring. Weddings, births, airport reunions and separations all can elicit feelings of overwhelming joy and pain. The convoluted faces that result can resemble both the look of crying and of laughing (which are not so different themselves), depending on which moment you look. I've illustrated a face precisely on the cusp between the two.

This woman is expressing her feelings on being reunited with her son after years of wartime separation. If all you see is someone crying, look again. Strongly marked signs of both sadness and joy are present. Above, there are clear signs of grief, especially the kinked eyebrow on the left, and the faint traces of the corrugator. Below, her mouth shape is a compromise: in the crucial lower corner (A), it's 75 percent angled up in the smile, 25 percent pulled sideways in the cry. But it's enough of a smile that, combined with the sharply angled nose-to-mouth fold and smooth chin, we read the expression for what it is: the joy of a long-suffering heart.



HAPPY/SAD

A subtle face, this is such a slight smile, and such a subtle show of sadness, that many people disagree on what it represents. That sadness is present in her brow is clear from a comparison with her relaxed eyebrows (below); both are slightly curved upward at their inner ends. Her threshold smile is so won that some see it as a shrug rather than a smile. The clear message here is that she's simply smiling but is wistful, or regretful, like someone seeing a lover off for a long trip.



The slightest hints of mingled pleased and pained feelings give this portrait by Thomas Eakins an air of sensitivity and compassion. Notice the very slight kink in the eyebrow at (A); the stretch in the LBL is faint but unmistakable. Cheeks are rendered to suggest beginning of smile forms at (B) and (C). Corner has moved back into cheek; in her relaxed mouth it would be at point (D), without stretching of red part of the lips above and below. But Eakins has chosen not to stress the upward part of the movement, leaving it a smile trembling on the edge of becoming.



Beyond what we see, Bathsheba is holding a letter from King David, asking her to appear at his palace. In Rembrandt's well-known painting, she's portrayed responding to the king's proposition with a mixture of pleasure and distress. That it's partly pleasure we see in the corner of her mouth, curved up at (A) in a threshold smile (outer end above the middle). Crease at (B) is just beginning. In her eyes, the downcast gaze and uplited eyebrows suggest sadness, although anxiety (kinked and raised brow) is another possible interpretation.



EAGER

The eye opens wide when we're excited and closes when we smile. When we're pleased and excited, both actions can combine. The lifting of the upper lid is added to the other natural movements that occur when we smile, producing an eye that is widened above, narrowed below, and a face with an enthusiastic look.

A presidential campaign produced this turned-on look. From the iris on down, the look is of a broad smile, with a full, contracted lower lid and swelling cheeks. What sets the look apart is the lifting of the upper lid (A), exposing white above the eye, making her seem excited as well as joyful.

Cartoonists specialize in suggesting anatomical forms without necessarily fully describing them. Here, tightened lower lid is shown as simple straight line (B). On her right eye, the suggestion's most economical: lower portion of iris is simply left out. Swelling of cheeks is implied by lines (C) and (D), as is rest of nasolabial fold.



Many cartoon characters have permanent eager smiles. Animal characters are often made to seem cheerful and frolicsome by the addition of white above the eye. Elsie the cow is an excellent example of this sort of expression. Her raised upper lid and very arched eyebrows are joined with a well-observed shorthand version of the smiling lower lid: it's clearly straightened, with bulge underneath.

JOY: 5 COMPLEX SMILES

INGRATIATING

There are times when we smile in an attempt to win over someone who's going to take a little convincing. If we want to graphically demonstrate how worried we are that we won't be forgiven, we can smile in a way that combines the fear brow with the smiling eyes and mouth. The resulting slightly abashed look can be disarming under the right circumstances.

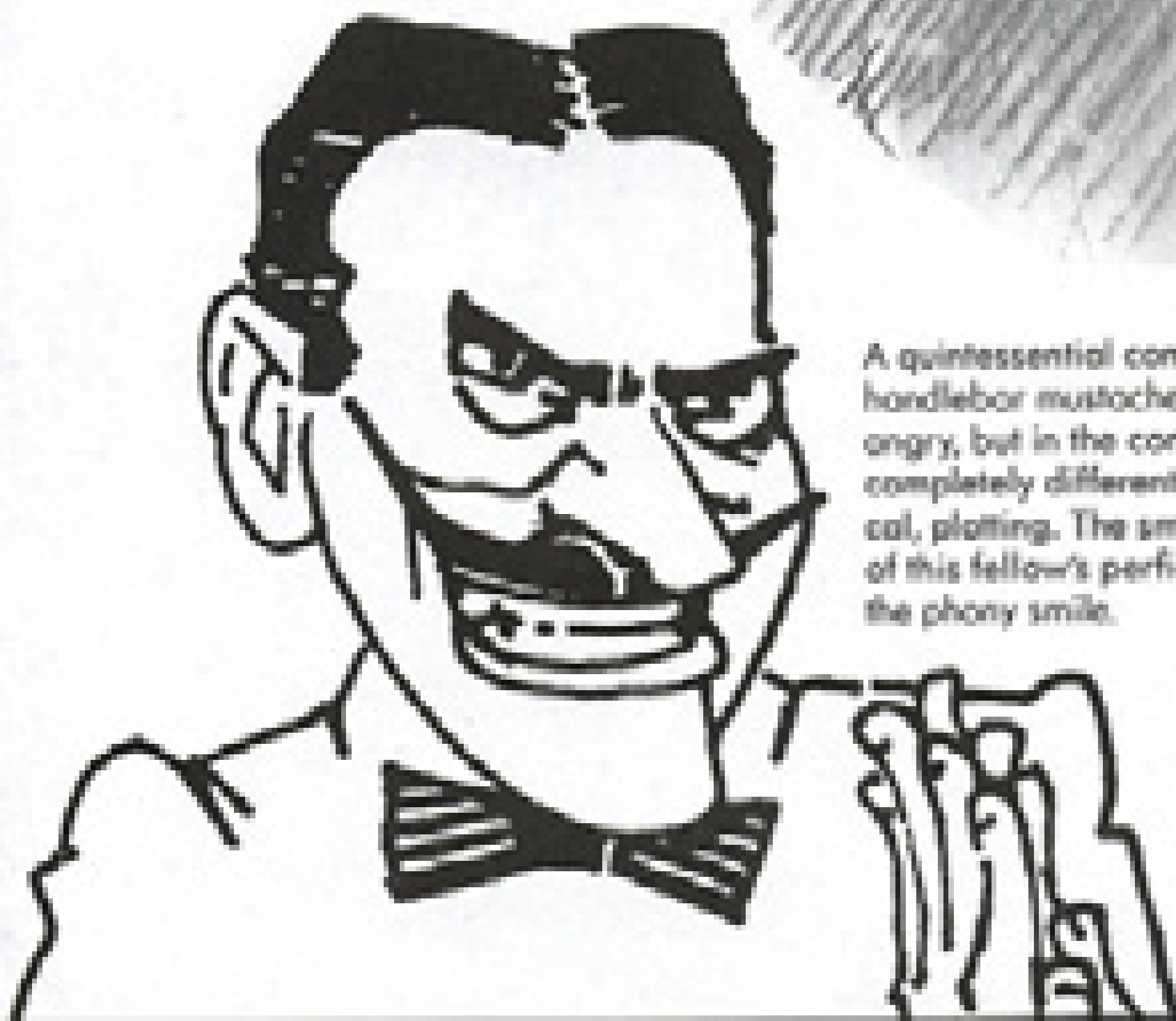
There's quite a lot going on in this particular ingratiating smile: (1) Head tipped forward, giving the expression a slightly deferential look. (2) Stifled smile, with the little curl of triangular's (A), sharp cut-off of cheeks (B), and mouth corners pulled deep into the face. Smile would be wider otherwise. (3) Fear configuration in brow, a combination of overall brow lift (note horizontal wrinkles) and extra kink and curl upward at inner brow ends.



Using the ingratiating smile in an effort to defuse her companion's anger, this woman from the comic *Mary Worth* demonstrates the same brow pattern as the man above, rendered in typical cartoon shorthand. One horizontal brow fold (A) stands in for many; eyebrows are clearly lifted and kinked. Her mouth shape is a compromise between talking and smiling. The forward-thrusting, pouting anger of the woman in the foreground is equally effective, as is the device of having her gaze to the side being suggested by her iris's having rolled right out of our view.

SLY

This version of the smile is a curious case. We have no trouble getting the message of the villainous, crafty grin on the cartoon character below—based on the combination of the lowered brow and the smile—but do such expressions appear in real life? Many of us do use our corrugator when we are being thoughtful (or crafty), so the source of the association is clear; but how often do people smile while they are being thoughtful? Is this a gesture, or an expression? The face of the right is based on a photograph of an actor in a comic movie. The sly grin is the sort of gesture that works well in comedy, where things tend to be played in a broad, stylized fashion. This particular expression is a combination of the slightly lowered brow and the threshold smile.



A quintessential comic-strip villain, complete with handlebar mustache. The eyes themselves seem angry, but in the context of a smile they take on a completely different character—cunning, diabolical, plotting. The smile itself is further indication of this fellow's perfidity—it's the square version of the phony smile.



EYES BY THEMSELVES
LOOK MERELY ANGRY.



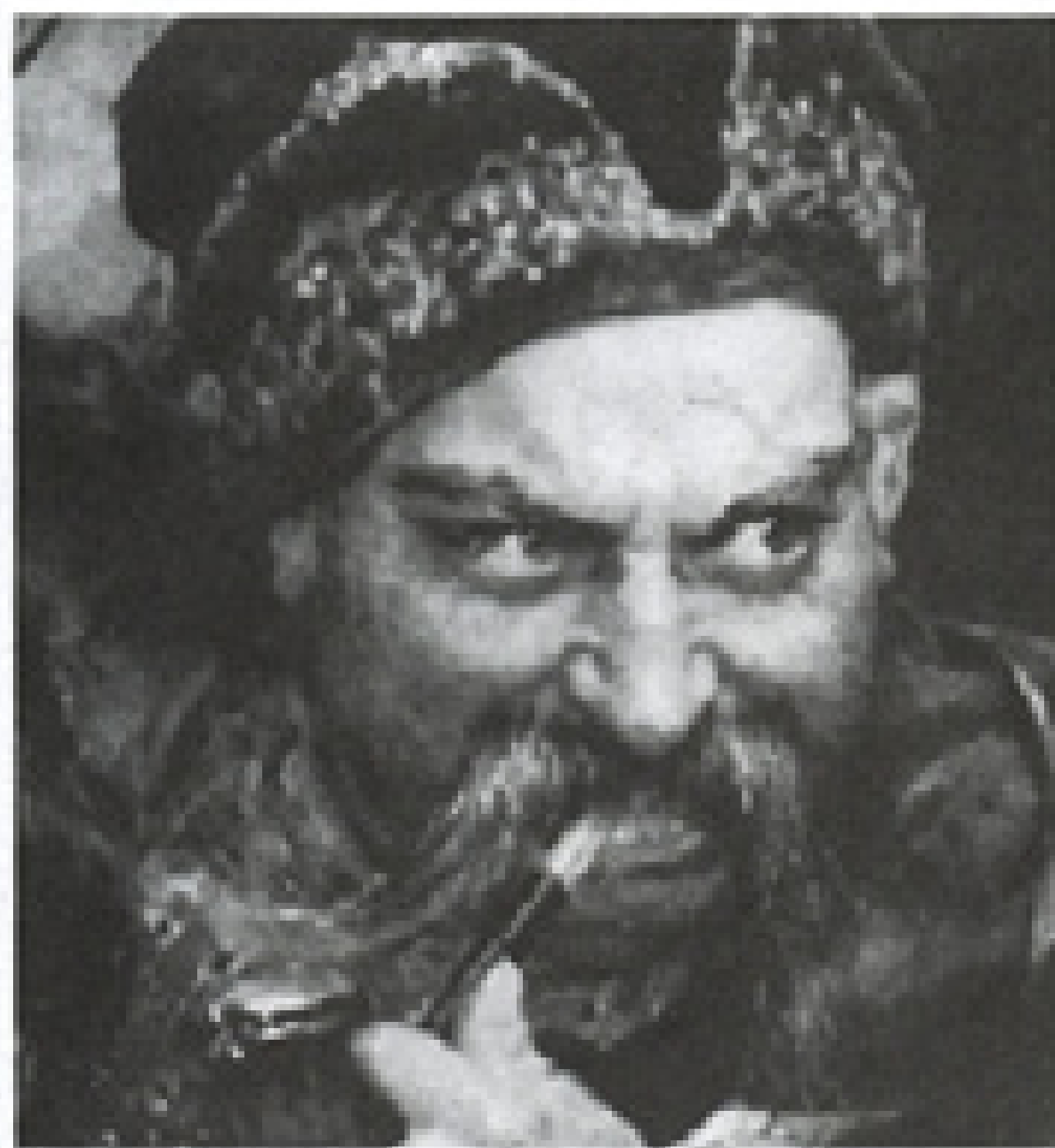
"They're the Veterans of the Cabbage Patch Dull Wars."

Drawing by W. Miller, © 1994 The New Yorker Magazine, Inc.

SLY

There seems to be a fine line that separates the villainous from the merely shrewd. These individuals are meant to be seen as cunning and pleased with themselves. (The reference is to a particularly popular toy that was in short supply one Christmas).

What distinguishes the cunning from the dull? In this case, the look of the brows and upper lid. This sly smile combines the lowered brow (A), with a raised upper lid (cut off by lowered brow at [B]) and slight grin. The high upper lid gives the expression an extra intensity. The dull smile (C) is a version of the debauched grin—low upper lid, sometimes (as here) with a raised brow. The drummer with the low upper lid could look drunk instead of slow, but here context suggests otherwise.

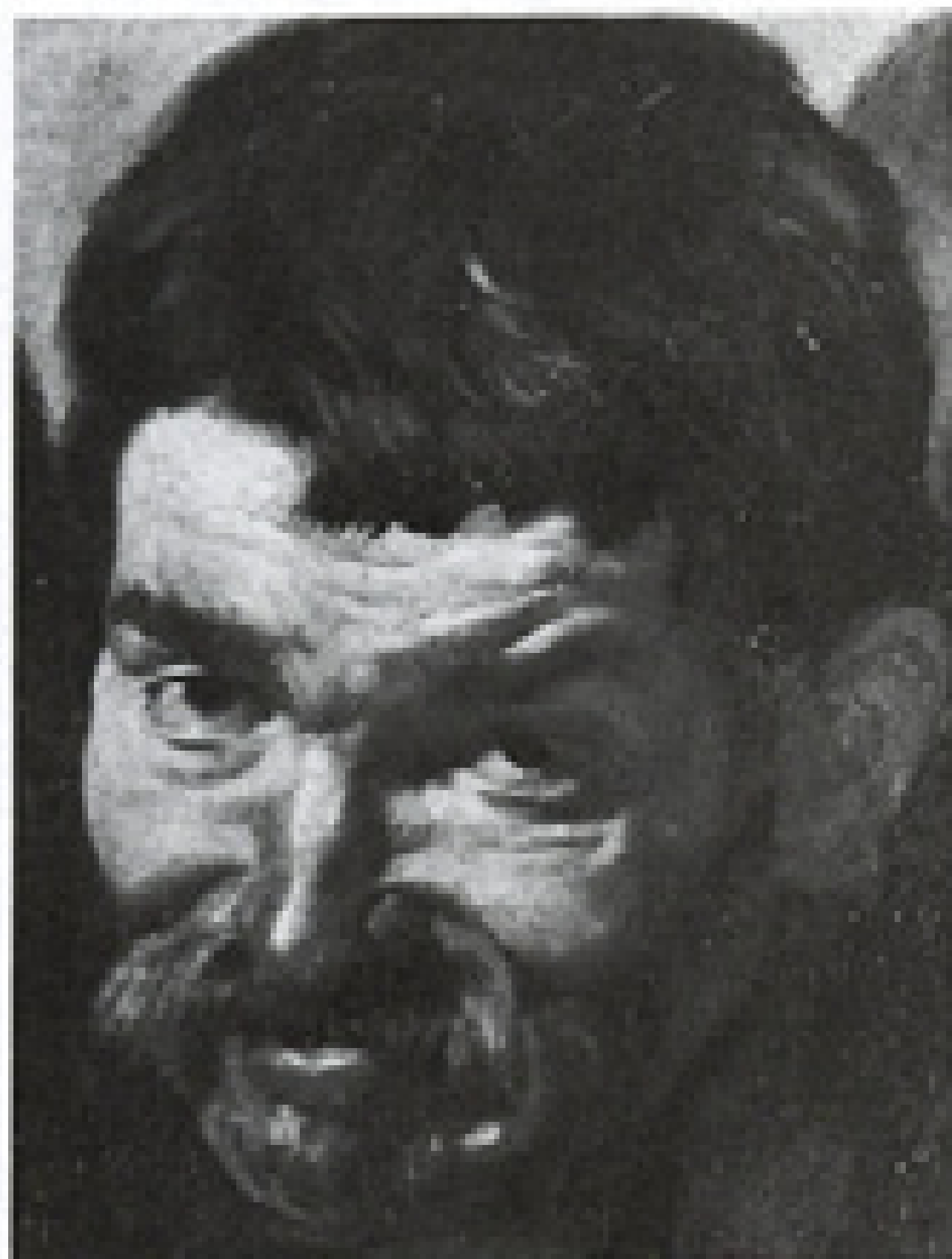
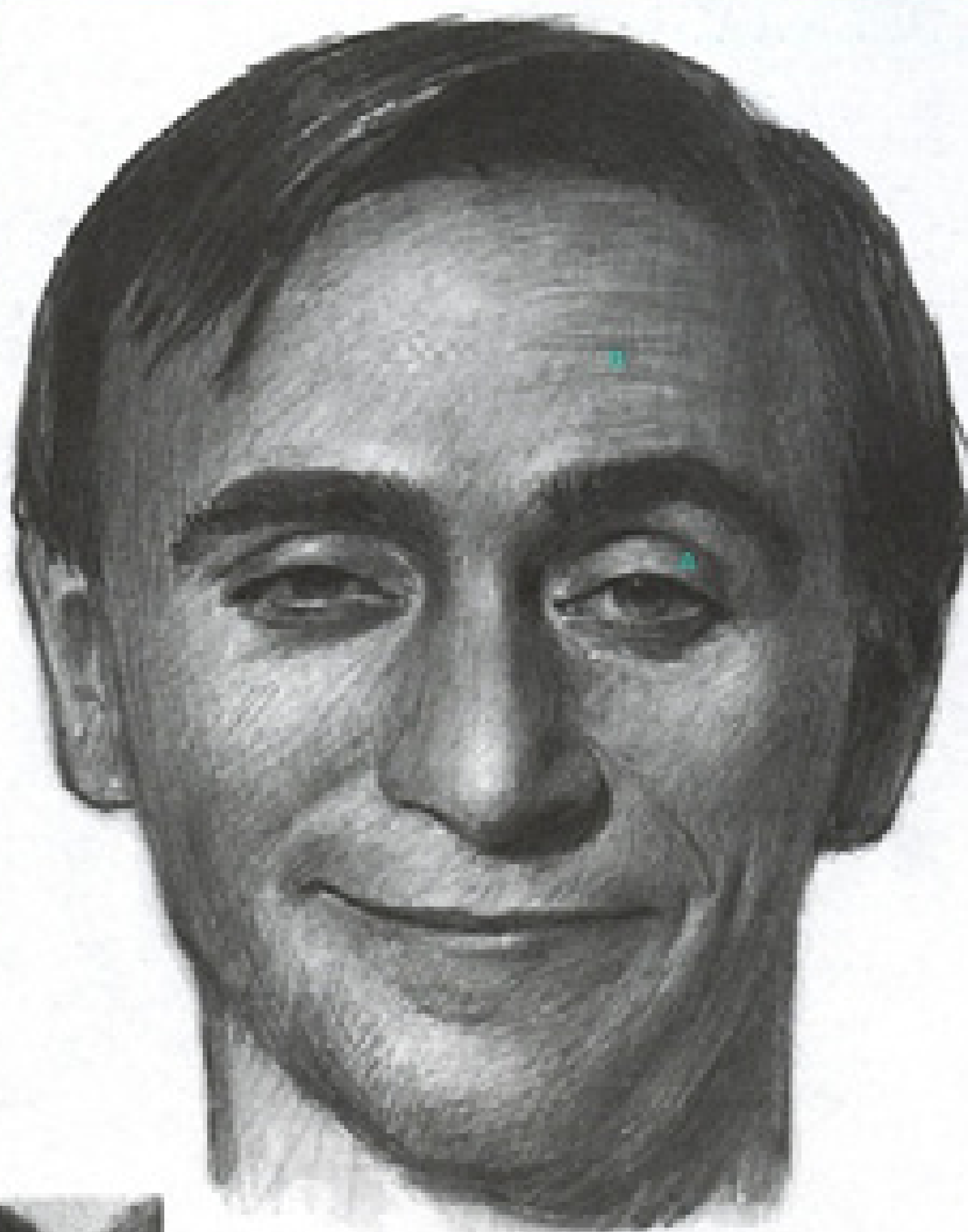


This is one pleased Cossock. As pointed by the Russian Ilya Repin, this is the most vigorous of the shrewd grins I've reproduced. Besides the strongly lowered eyebrows, the face includes full eyelid pouches, full cheeks, heavy nasolabial folds, and every indication he'd have a broad smile if he didn't have his lips around that pipe!

DEBAUCHED

When the upper lid droops, covering a bit of the pupil, it makes us look sleepy, intoxicated, or even dull-witted. Combine this effect with a smile, and the net result is an expression suggestive of intoxicated pleasure—the look of a sotyr.

This gentleman looks drunk. Both eyes contribute to the effect, even though only one lid is drooping. The other lid (A), is in an ordinary, alert position, but only because it's being lifted by his left frontalis (B). Sleepy people often employ the brow-raising muscle in an attempt to keep their lids from falling; here it merely adds to the intoxicated effect. Slight smiles are usually asymmetrical.



The head of a drunken peasant from *Bacchus* by Velázquez. The same combination of elements are present: closed-mouth, asymmetrical smile; one lid drooping, the other lifted by half of frontalis. The eyes seem oddly out of convergence.

Drawing by Francisco © 1983 The New Yorker Magazine, Inc.



"Don't 'Oh, baby' me!"

DEBAUCHED

In the right setting, we may also see the drooping-lid smile as an indication of heightened sexual desire, or other sort of intoxication. If the man in the cartoon was sitting at a bar, we would see him as contentedly tipsy; here we interpret his look as amorous. His (presumed) wife really doesn't look very angry—it's all in her gesture and the context. You have to look carefully here to sort out what line does what—the cartoonist has used one continuous line for the nose and the eyeglass stem; the low upper lid is a separate stroke of (A).



A come-hither look, but oh-so-polite and refined, in the context of a society portrait. Her upper lids droop just below the alert lower limit; her smile is just past the smile threshold.

JOY: 5 COMPLEX SMILES

CLOSED-EYE

The look of the closed-eye smile is the look of someone who's just been stroked. Like the stifled smile, it has a charming, slightly abashed quality to it; we're pleased with the attention and at the same time trying not to show it. When seen on a head that is tilted forward or to one side, there is an added sense of slight embarrassment or shyness.

Presented with a compliment, we sometimes react by closing our eyes and smiling, as this woman is doing. The closed-mouth smile is slightly more modest than the broad, toothy smile; it may be that a slight, invisible action of the three-muscle press keeps the lips from separating in smiles like these. The effect would be exactly the same if her eyes were looking downward instead of being closed.



Drawing by Giovanni, © 1982 The New Yorker Magazine, Inc.



"Before Reagan came along, you never used to winkle and say 'Well . . .'"

A very similar note is struck by the tipped head and closed eyes of the gentleman in this cartoon. Note carefully the economical strokes on the left side of his face; in combination with the ink-wash shading, they successfully suggest his rounded cheeks and crow's feet. For good measure (and not really necessary) the cartoonist has added raised eyebrows.



THE COUNTERFEIT SMILE

Artists need to discriminate between true and false in portraying smiles. It is easy enough to get practice in comparing the real with the phony—we are daily bombarded with images of people who wish to be perceived as happy—politicians, models in ads, celebrities.

We always draw conclusions about someone's smile, whether we're aware of it or not. We know a false smile when we see one, but it's all instinct. Here's some tell-tale signs of the counterfeit smile:

Lack of eye/mouth agreement

The wider the smile, the more crinkled the eyes. When someone flashes a lot of teeth, and there isn't a heavy pouch under the eyes, deep crow's feet, and a straight, high-riding lower lid, the smile lacks warmth and charm.

Flat cheeks

The bunching of the cheeks is created by the joint action of the eye muscle and the smiling muscle. If only the

smiling muscle is active, the cheeks won't be as full, and the smile won't look right.

Too Toothy

Somewhere along the line, certain individuals get into the habit of displaying their lower teeth as well as their upper when they smile. This can only be done with the added pull of the lip stretcher, and it gives a strained, false quality to the smile. Besides showing the lower teeth, the sideways pull also creates a longer flat section in the middle of the lower lip and a square corner. This sort of smile is common among people who are constantly in the spotlight—politicians and celebrities—and who are used to making an extra effort for the cameras.

THE COUNTERFEIT LAUGH

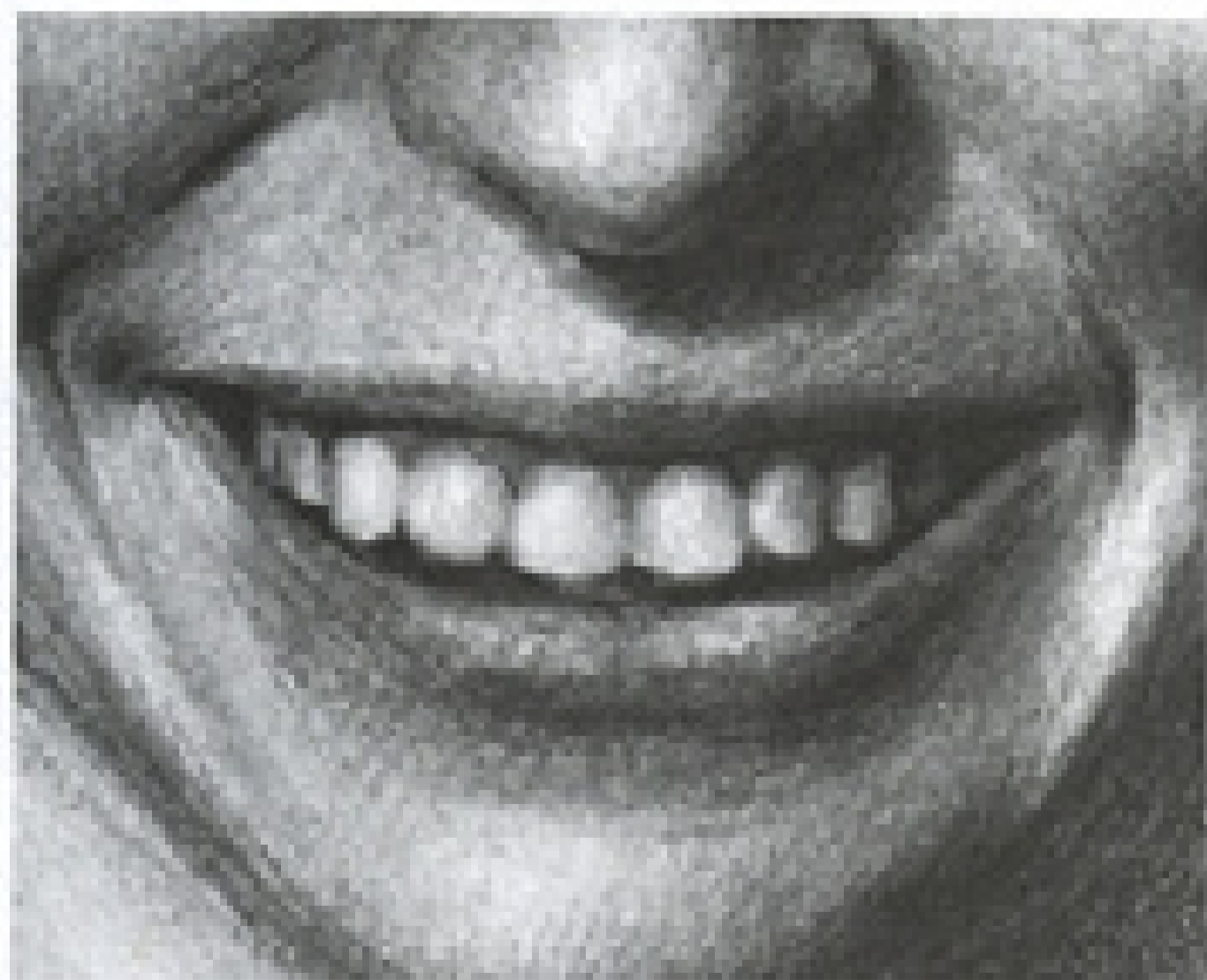
Laughing when you're not amused is a much more difficult proposition than smiling when you're not happy. Most of us have little reason to even try, but situations do arise, particularly if

you're in the modeling or performing business. No matter what your business, if you try to feign laughter, you have to begin by smiling and dropping your lower jaw, creating space between the teeth.

What all earnest laughs lack is the reflexive crunching of the eye and the skin around it. That reflex is very hard to trigger without stimulation of the energy burst that precedes a laugh. The difference between just closing the eyes and having them forcibly shut is clear in the direction of eyelids and the appearance of the skin around the eye. A real laugh creates a major pouch below the eyes and lots of wrinkling out from the corner. The lid lines are changed drastically—the lower lid pushed up, the upper lid pulled down. What looks particularly bad in a laugh is if the person laughing is looking at something. When we laugh, it takes over, and we momentarily lose consciousness of our surroundings. If you're looking at something while you laugh, you're not really laughing.

JOY: NOT SMILING

Here the pull of the lower lip stretcher, risorius/platysma, has been added to the pull of the smiling muscle, and while it does make the smile toothier, it doesn't make the smile nicer. Compared to the sincere smile, the toothy smile shows more of the lower teeth, and the lower lip is flatter, with a square-shaped corner. The resulting smile looks tense and unnatural. With the focus on page 234 we'd also expect to see their eyes more compressed.



A



B

A. Zygomatic major only.

B. Zygomatic major plus action of lip stretcher.

C. Pull of risorius/platysma squares corner.

JOY: NOT SMILING

What do con men, socialites, politicians, salespeople, relatives at a family reunion, and people posing for group photos all have in common? They are all expected to smile whether they're happy or not. Smiles are alone amongst expressions in being a requirement in certain situations, and we all have experience of having to smile when we'd rather not. In social encounters, we're usually too pre-occupied to notice whose smile is sincere and whose is not, but when we are presented with a picture of a smile, and the time to look closely at it, we have strong opinions on the subject.



The too-toothy smile (above and left). People who smile for the camera may develop the habit of stretching the mouth as wide as possible in an effort to enhance their smile. It doesn't necessarily work. The ordinary smile uses only one muscle to stretch the mouth, zygomatic major, and that accomplishes the task nicely.

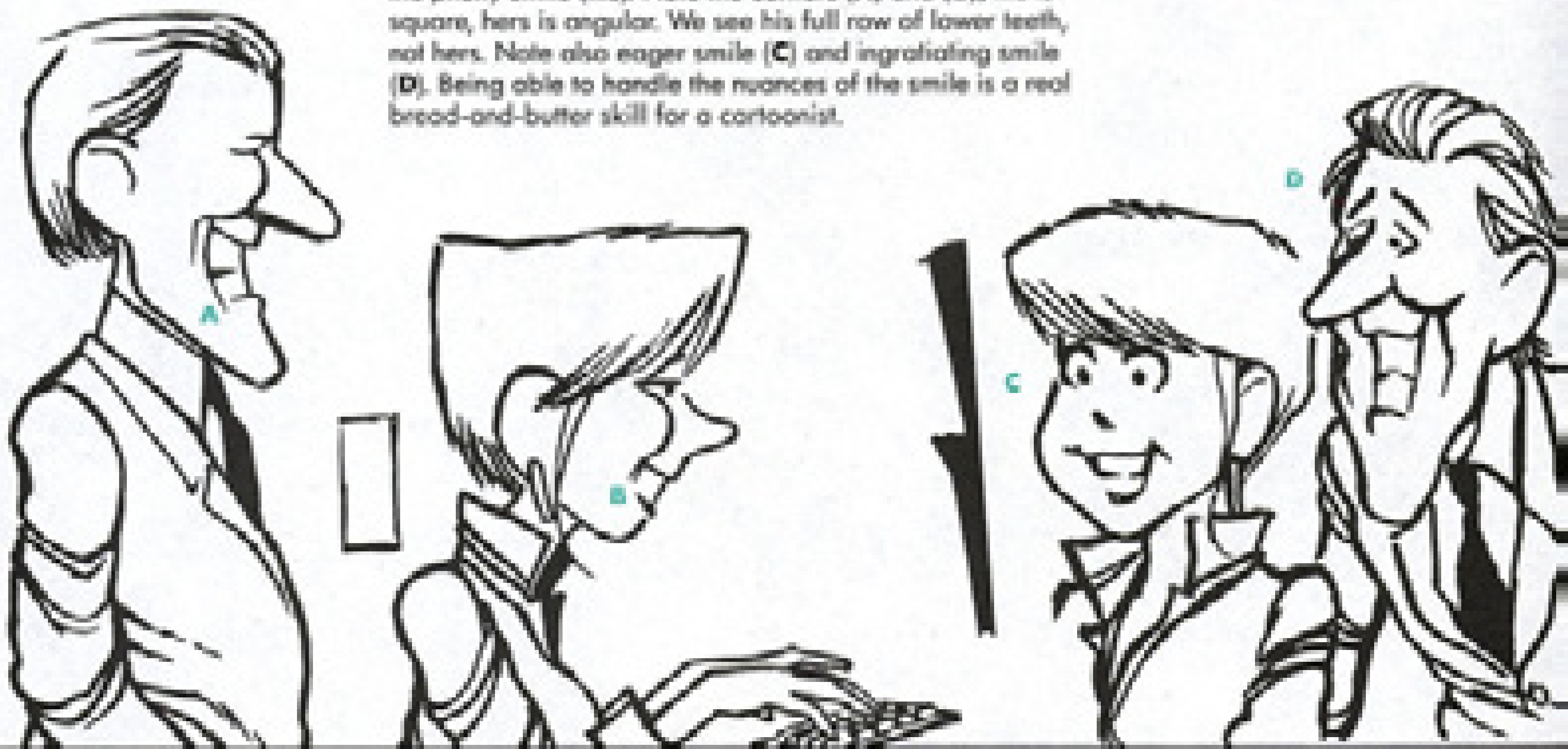
BOOMERS'

Song

by David Horsey



An excellent cartoon send-up of the too-toothy smile is provided by this excerpt from the strip *Boomer's Song*. It's the sort of expression we associate with a particular sort of extroverted insincerity, personified here by the young executive on the make. Most instructive is the panel enlarged at left—the sincere smile (hers) is seen in the same view as the phony smile (his). Note the corners (A) and (B); his is square, hers is angular. We see his full row of lower teeth, not hers. Note also eager smile (C) and ingratiating smile (D). Being able to handle the nuances of the smile is a real bread-and-butter skill for a cartoonist.



JOY: NOT LAUGHING

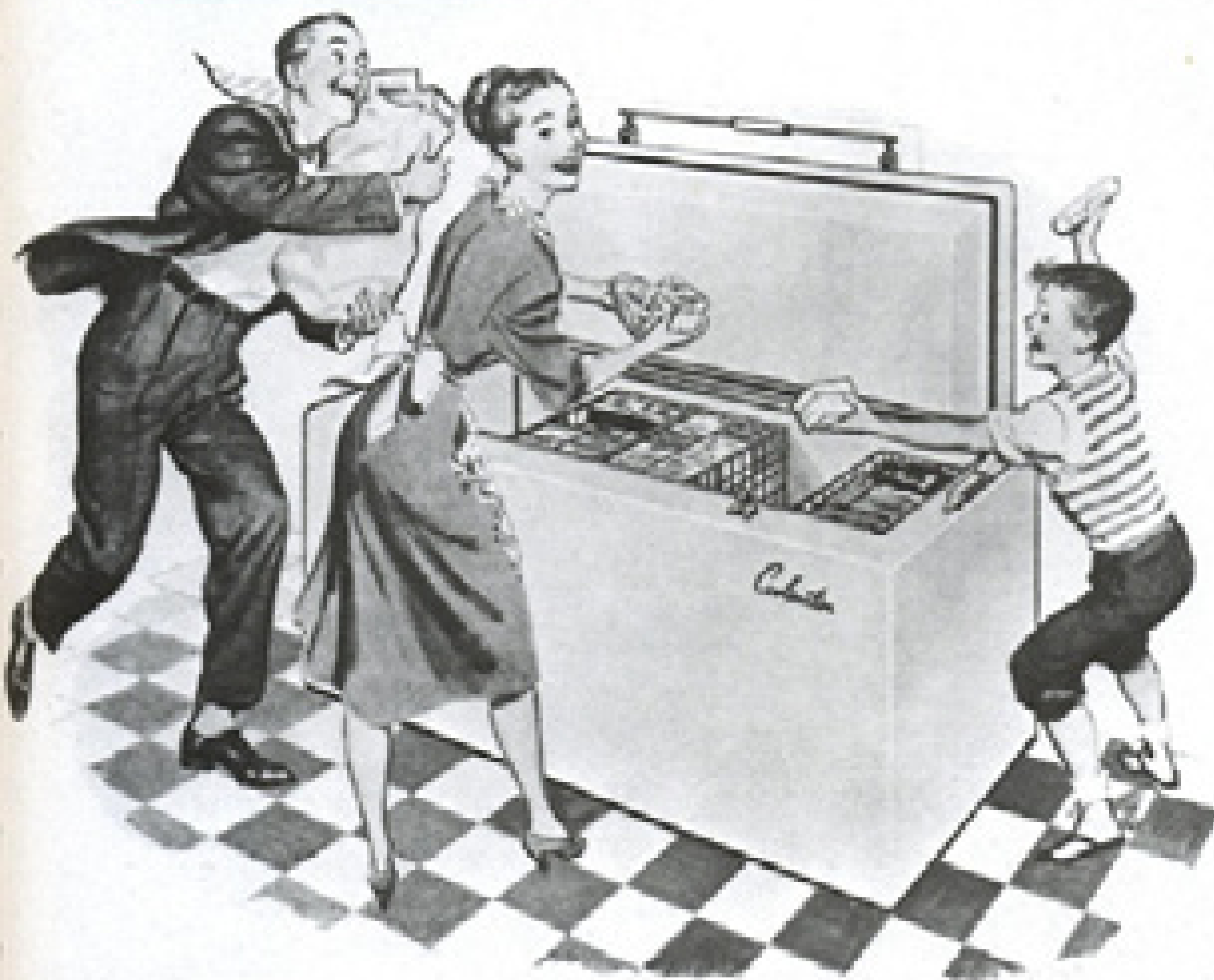
All of us are required to smile at one time or another; only some of us are ever required to laugh. Forced laughter is a speciality of advertising models, and we're daily surrounded with examples of insincere laughs in cigarette ads and the like. Actors may also be seen laughing without much conviction. What separates the genuine laugh from the posed variety is simple—the degree of contraction of the muscle surrounding the eyes, orbicularis oculi. No contraction or a weak contraction means no laugh. Neither of these women is laughing. They are both smiling with their jaws dropped, something only people trying to pose laughter will do.



Problem with the eyes. There is a subtle, but unmistakable difference between the eyes pressed shut by the contracted orbicularis oculi and the eyes merely shut by the lowering of the upper lid. Her lash line curves downward; in a true laugh it is curved straight or upward. Eyes also lack pouching of lower lid (sign of eye muscle contraction) and crow's feet. Real laughter puts on intense squeeze on the eyes.



Problems with the eyes. She's looking at us. True laughter is a momentary explosion, leaving us blind to the world around us. She lacks pouching under the eye, crow's feet, and raised lower lid. *Problem with the cheeks.* When only the zygomatic major contracts, half of the force that bunches the cheeks is missing—the contraction of the orbicularis oculi.



If you suspect that beneath the surface of those happy 1950s families something else lurked, this ad illustration may offer some confirmation. Besides the odd, spasmodic gestures (and no one is looking at anyone else), every jaw is dropped in a hollow laugh. The man on the left demonstrates the impossible combination of eager smile—raised eyebrows, white above iris—and laugh; the effect is silly, not cheerful. Laughter isn't possible with a wide eye, and the jaw doesn't drop that far in ordinary smiling. The woman's laugh has no eye contraction at all, no cheek bunching. Even if she were smiling and not laughing, the eyes and cheeks would look radically different if she was sincere. (And why isn't she watching what she's doing?) The boy's cheek bulge is far too low on his face. It should be centered alongside the nose (see p. 197).

SUMMARY

The expression of joy is by far the most complex of any we've examined. The smile can be associated with an enormous variety of moods, ranging from total euphoria to melancholy. Smiles even appear on the face when we're not feeling any emotion at all as a sort of all-purpose social mask.

The pure smile is straightforward, the work of only two muscles—the zygomatic major and the orbicularis oculi. As long as we're really happy, a precise coordination exists between their action. A strong burst of feeling will stimulate strong contractions of both; a slight tingle of pleasure will create a full-face movement with hints of all the same changes. We instinctively smile in this particular way, and we instinctively recognize when someone else is smiling with sincere feeling.

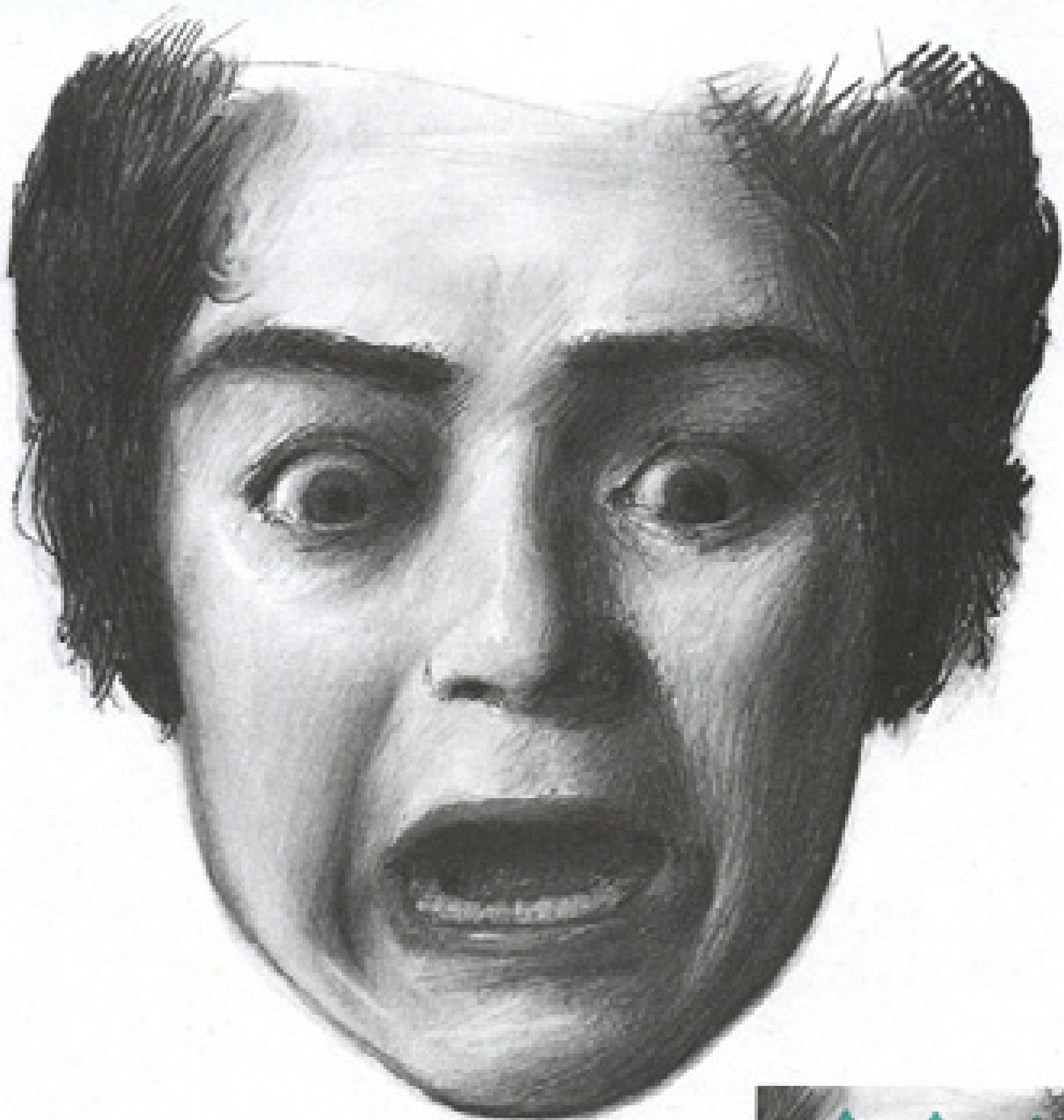
When we laugh, the same muscles, and the same movement, are activated. In depicting laughter or smiling, an awareness of the rounding out of the upper face and tightening up of the lower is essential in making the smile look "right." A broad smile, particularly, is a major facial event; few expressions move so much face around and create such a pronounced "hill-and-valley landscape." A clear understanding of the role of the lower lid in adding warmth and sincerity to a smile is also crucial. In general, if you don't have bags under your eyes, you're not happy!

Skill at drawing things like stripes on beachballs and rings around barrels is directly related to skill at drawing the lip portion of a smile; one must feel clearly the line of the lips traveling around the smooth cylinder of the

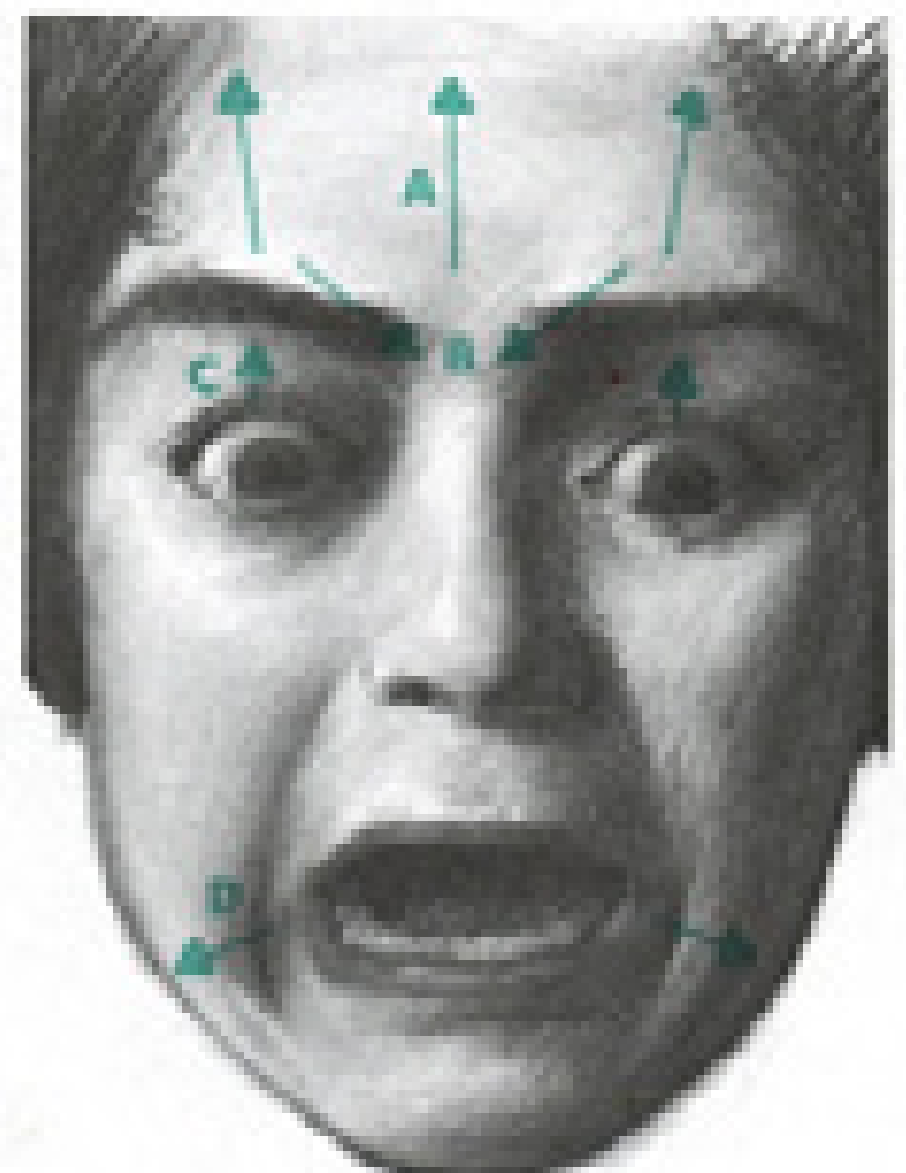
teeth. Observation and practice get the other parts of the smile to look right.

There's no limit to the emotional nuances a smile may express. Artists have particularly focused on the slight smile and the melancholy smile; cartoonists routinely combine the smile and active eyebrows to achieve a much broader range of possibilities.

Ultimately, looking at smiles suggests how limited our understanding of the whole phenomena of smiling really is; no one fully understands how we physically create the smile, let alone how we perceive such an enormous range of meanings from it. Like people, smiling may be ultimately too complicated and subtle to ever analyze fully or comprehend. The artist proceeds by trial and error and by celebrating, not avoiding, the mystery.



The changes that take place in the face seem minor by comparison to the effects of terror on the body, but they are striking, nonetheless—the eyes open wide, the brows are bent and pulled upward, and the mouth drops open, showing the lower teeth. Fear shares with surprise the look of sudden alertness and with sorrow the look of distress.



- A. Action of frontalis.
- B. Action of corrugator.
- C. Action of levator palpebrae.
- D. Action of risorius/platysma.

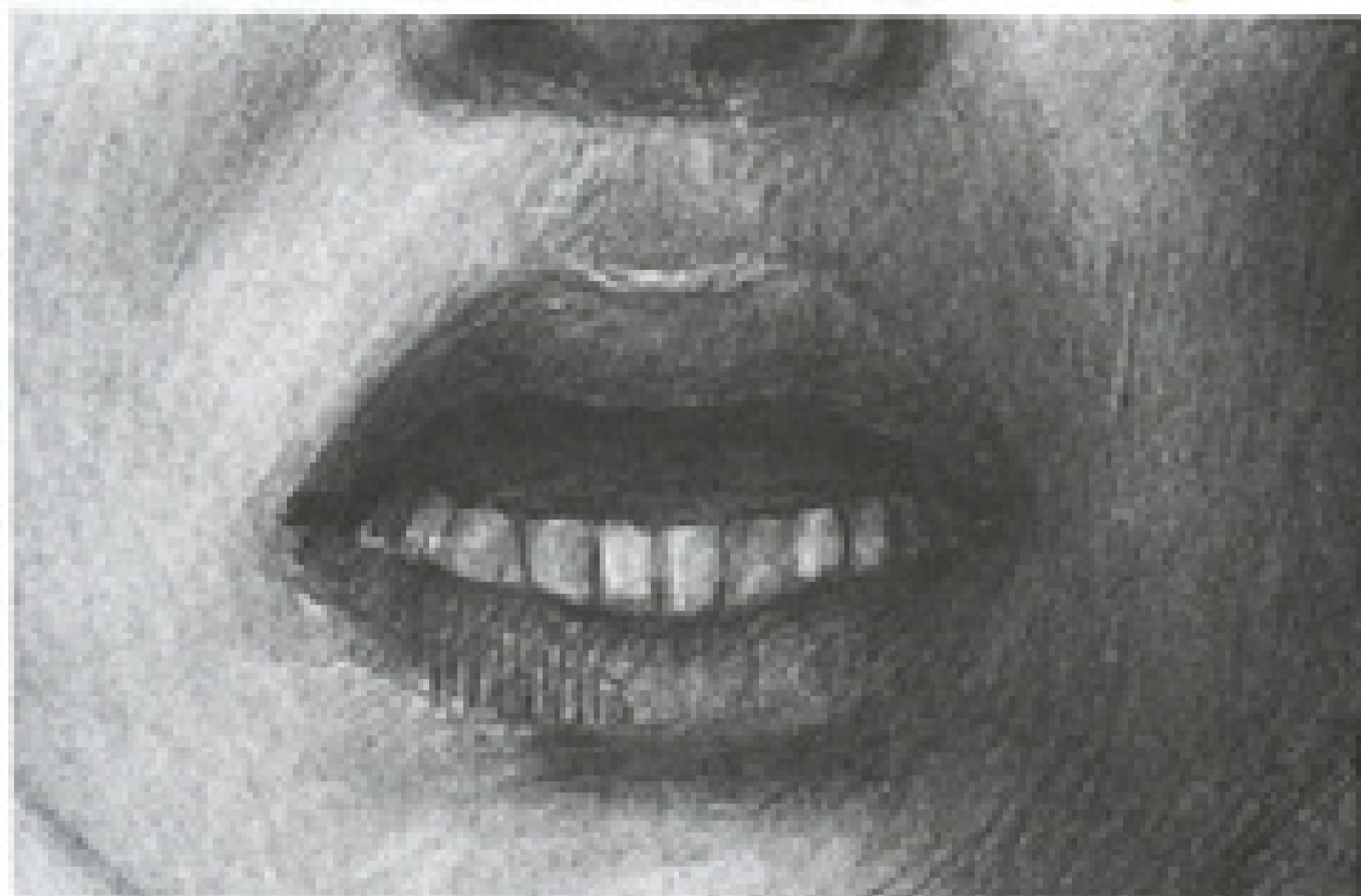
THE MOUTH

The mouth drops open when we're frightened, because we breathe much harder. Surprise is nearly the same, but with one crucial difference—the action of risorius/platysma. The lip stretcher acts when we're afraid and not when we're merely surprised. The result: a completely relaxed upper lip and a horizontally-stretched lower lip.

In fear only the risorius/platysma is operating on the mouth. The contraction is less intense than in sorrow.

In sorrow the risorius/platysma acts with the mentalis and the zygomatic minor. The upper lip is square, but not sneering.

In anger the risorius/platysma acts with the sneering muscle.



FEAR



SADNESS



ANGER

THE EYES AND BROW

The eyes in fear control the intensity. They open as wide as possible. The wider they open, the more frightened the look. Even in faces that are merely anxious, the eyes are noticeably more alert looking than in the otherwise similar expression of sorrow. Sometimes the lower lid may rise in tension, or the eyes themselves may bulge.

The eyebrows in a frightened face are a cross between surprise and distress. In surprise (top), the full frontalis contracts and the eyebrows are pulled straight upward. In sorrow (bottom), the middle frontalis contracts and the corrugator acts; the eyebrows are pulled closer together, and their inner ends bend upward. When we're afraid (middle), the corrugator and the full frontalis contract: the eyebrows rise half as high as in surprise (the corrugator is pulling them downward), the inner end bends half as much as in sorrow.

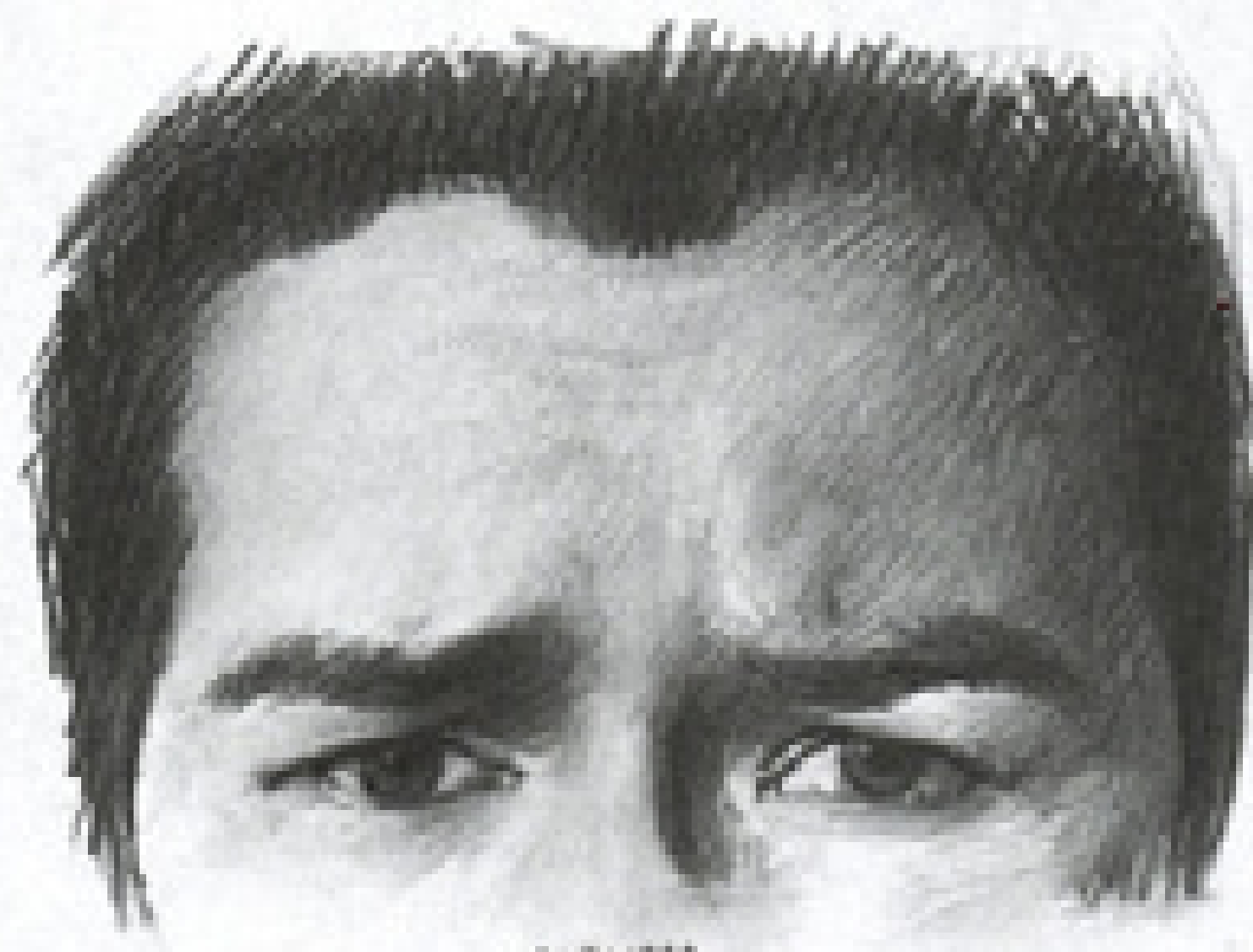
In fear, horizontal wrinkles (A) often appear across full forehead; they appear only in the center in sorrow. The eyebrow (B) is more straight than arched. The inner eyebrow end is usually (but not always) kinked. (C) Brows are also closer together; bumps appear between them.



SURPRISE



FEAR



SADNESS



EYES ONLY

One way to depict terror is to hide part of the face and show just the widened eyes. This is a technique regularly used in ads for horror movies. We tend to see the eye from the top poster as frightened, even though it could just as easily be the eye of surprise—we can't see enough of the eyebrow to tell if it's lifted and bent or just lifted. The face below (middle) is even less likely a candidate to look terrified—the eyebrows are neither lifted nor bent. The widened eyes and dramatic lighting lead us to read the face as that of terror.



Part of the reason the movie posters work is that occasionally it is only the eyes that register our facial response to fear. This drawing (left) is based on a photo of a rural Indian boy about to receive a typhoid shot. Though most of his face is relaxed, we have no trouble determining what his state of mind must have been at that moment. There is the strong possibility that the eyeball is pushing outward in response to the boy's panic, showing more white and bulging out the lower lid.

EXAMPLES FROM ART

The expression on this face is one of the most literal depictions of terror in the history of painting. Ivan the Terrible is portrayed after having mortally wounded his son in an outburst of rage. The fury has passed; it has been replaced by abject horror. Though Ivan's mouth is hidden, his eyes are explicit.



Repin has made two major changes in the expression between the study (right) and the painting. **1.** The eyes are wider and more bulging. In fear, wider eyes intensify the expression. The severity of the lower lid pouch suggests that eyeballs are also pushing forward in their sockets; this is rare, but possible under such extreme emotion. **2.** The brow of fear is much more explicit. Relying on his knowledge of the expression (and likely posing it himself), Repin has added creases of frontalis (horizontal) and corrugator (vertical) to the smoother brow of his model. Such changes are often necessary to get an expression to "read."





EXAMPLES FROM ART

No actual masks of tragedy from the ancient stage have survived; their materials, like wood and canvas, were too perishable. But copies like this Roman carving, intended for display, not use, are thought to be quite accurate. This mask would have been worn by a tragic hero, like Oedipus. Though quite stylized, and likely a "copy of a copy," the message of unadulterated horror is stark and compelling. The D-on-its-back mouth (A) is identical with that in the Kollwitz lithograph; the eyes show plenty of white above the circular iris (B). Most stylized are the eyebrows and the vertical corrugator folds. The maskmaker has exaggerated the ordinarily slight up-tilt of the brows (C) and joined the corrugator ridge (D) to it for decorative effect. Decorative, but without losing the emotional impact.

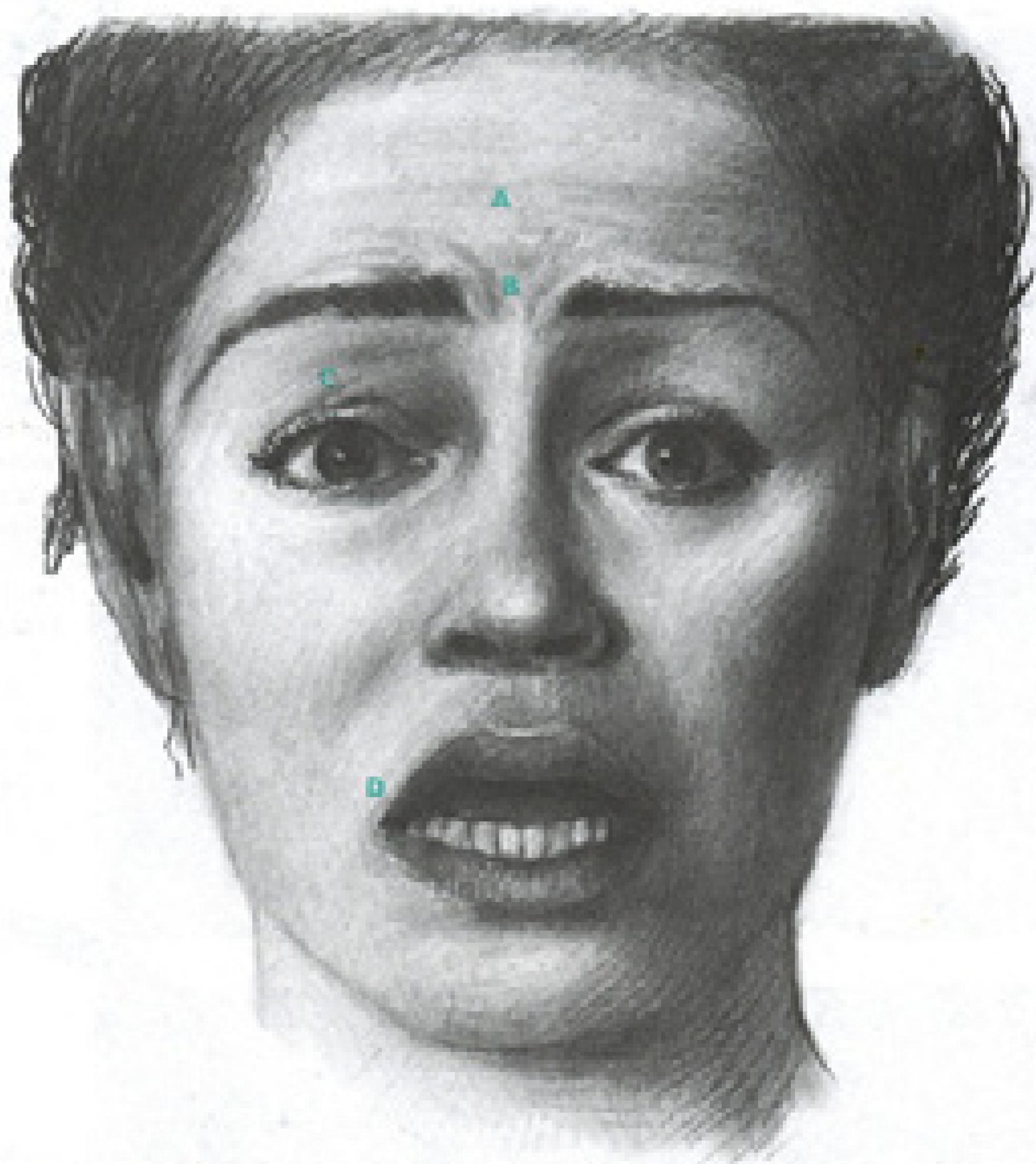
Somewhat less literal than the painting opposite is the portrayal of the woman in *Death Clutches a Woman* by Käthe Kollwitz. But even without the intense detail of the Repin, and partly shaded as it is, the woman's face is no less evocative of terror. Some details: (A) lifted brow and widened eye; (B) relaxed upper lip, tensed and stretched lower; (C) bracketing crease of risorius/platysma.



FEAR: VERY FRIGHTENED

How frightened someone looks depends on how frightened the eyes look. In the most extreme terror, there's always white showing above the iris. With the brows raised, the mouth opened and stretched, and the eyes not quite as wide, the face still looks very fearful, but without the same edge of intensity.

The mouth is probably the least important element in fear. This woman's mouth is dropped open, but the sideways stretching of the risorius/plotysma is very slight—just enough to expose the lower teeth. The message of her upper face, however, is very clear. Her eyebrows and forehead are marked by both the full upward pull of the frontalis and the downward resistance of the corrugator—note the variation in the shape of her two eyebrows, one straight, one kinked. Her eyes are opened slightly wider than normal.



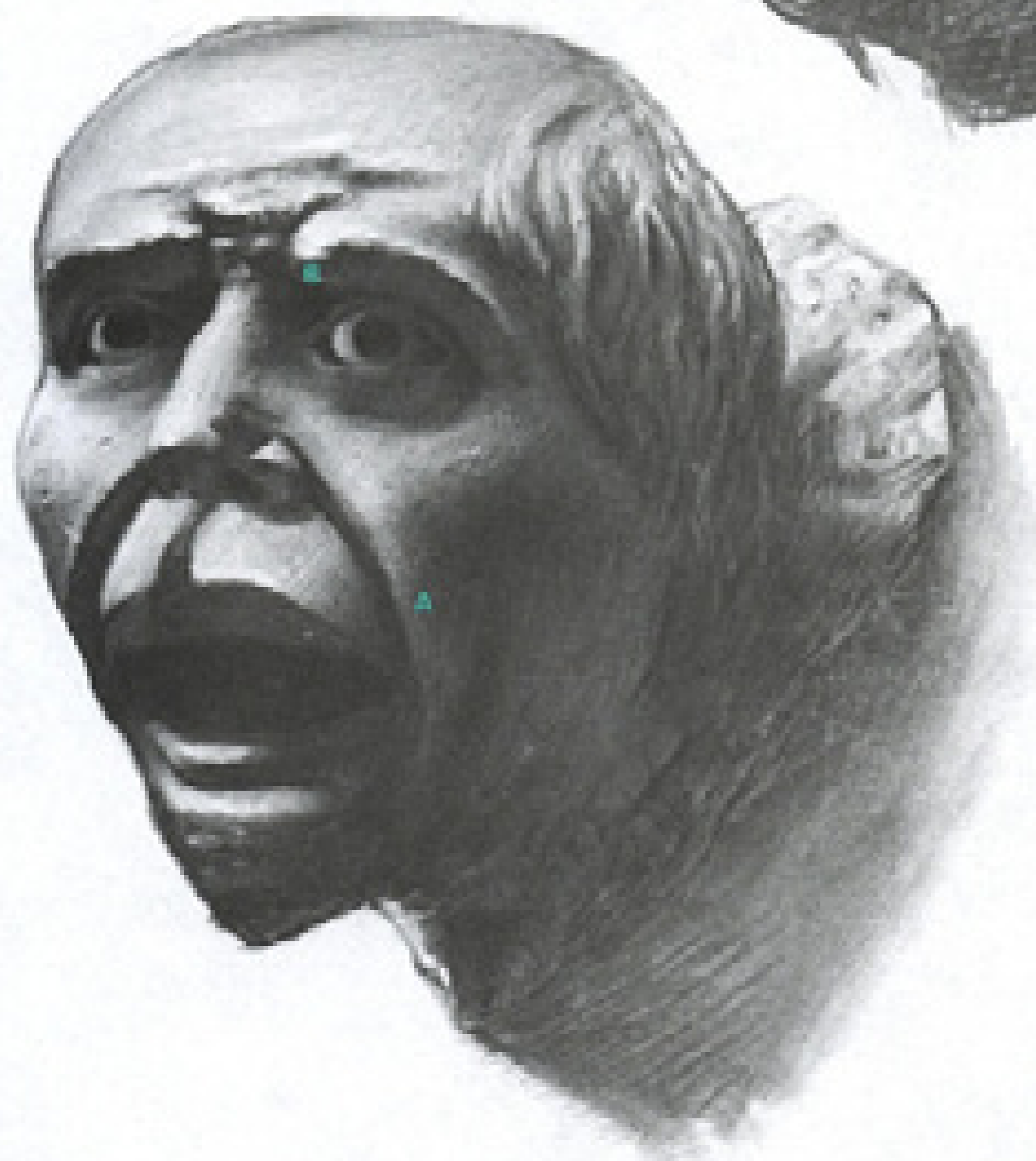
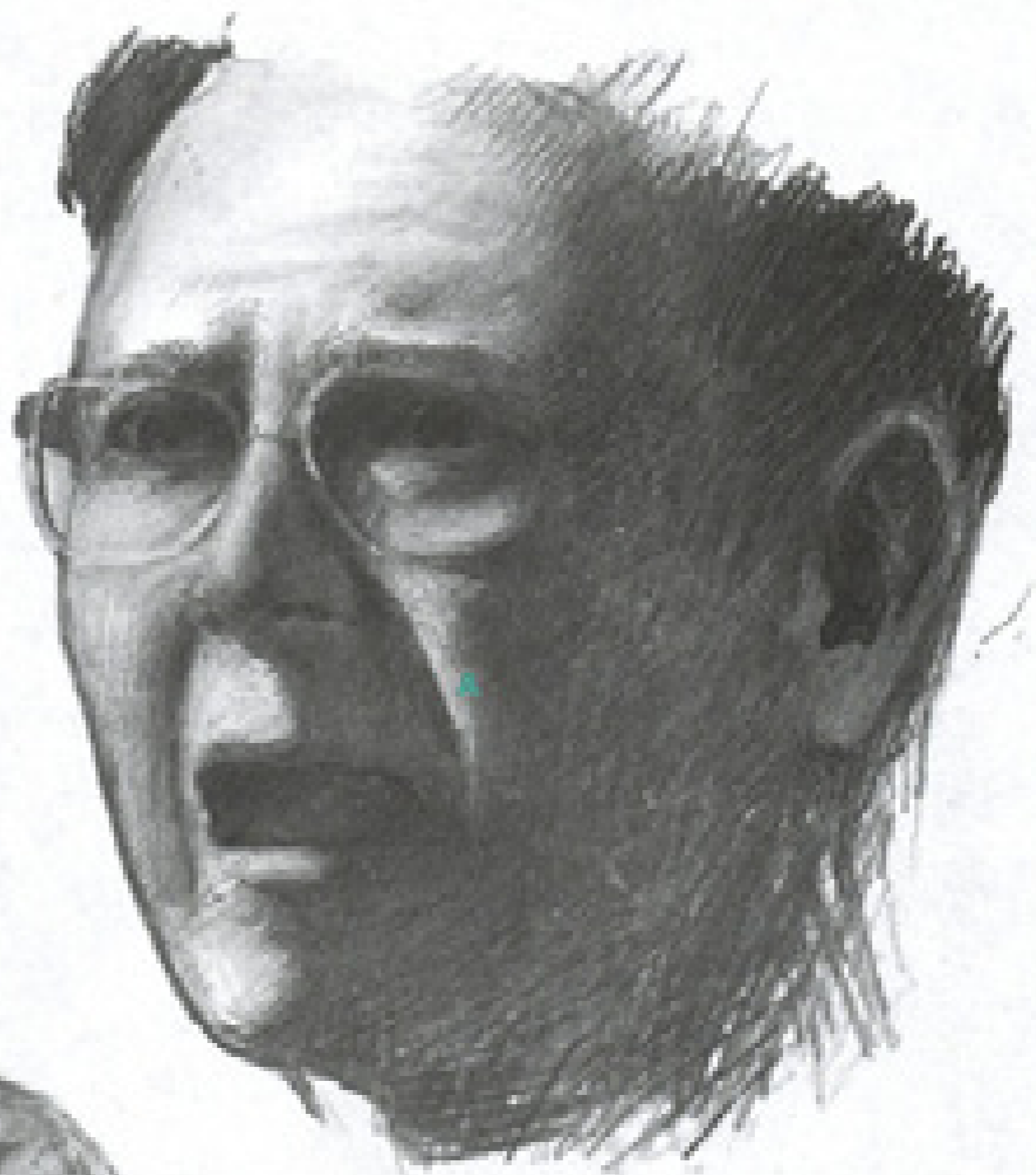
- A. Horizontal creases of frontalis.
- B. Vertical creases of corrugator.
- C. Suggestion of oblique, across-the-lid fold.
- D. Upper lip relaxed, lower lip a bit stretched.



This Noh mask, *Yase-otoko*, is said to indicate the state of an old man in death. Like the woman above, he looks terribly afraid. The mouth shape, like a D on its side, is very characteristic of the mouth of fear, with a bit more sideways stretch than the woman. Note stylization of top rim of eye-sockets and bottom rim of cheekbones meant to suggest hollowing out of the face that takes place with aging.

HORROR ANCIENT/
HORROR MODERN

The look of fear seems the same whether one is frightened at something threatening or reacting to an awful sight. The man (right) is one of the spectators of the explosion of the space shuttle Challenger. His expression of horror is indistinguishable from that of someone fearing direct harm. Compare this to the gargoyle with a look of horror (below). This stone carving is from the facade of the great medieval cathedral of Rheims. Was the gargoyle supposed to be watching horrible things or anticipating imminent harm to itself?



DETAILS OF THE EXPRESSIONS

The degree to which the brows lift in fear varies greatly from person to person. On the man (above) the brow lift is very slight. We see him as horrified, not grieved, because of the shape of his mouth and the wideness of his eyes. The creases we see running down both faces (A) appear in many expressions, whenever the mouth is both opened and stretched. In fear the folds are shallow, the cheeks relatively flat. Note also oblique upper lid fold on the gargoyle (B), a form that always appears in distress, sometimes in fear.

FEAR: VERY FRIGHTENED

Fear can be seen on the face even if the eyes are only ordinarily wide, and the eyebrows are only a bit lifted. What distinguishes these more subtle faces of fear from sadness is the fact that the eyebrows are lifted across their full length and the eyes are alert looking—not shuttered as in distress.



This woman had just returned home from a shopping trip to find her house surrounded by police—she was photographed at the moment of being told that her estranged husband had just shot several members of her family. Her horror is tangible—a characteristic gesture, hand held up to head, reinforces the message of the features. Her mouth is a compromise between speaking and the lower lip stretching of risorius/platysma; note tight upper lip. Her eyes have drifted out of convergence (the eye on the right is much further to the side than the one on the left), an indication of total distraction and confusion. In the face of shock the eyes are also askew and may remain so for some time.

- A.** Action of frontalis, raising brow.
- B.** Action of corrugator, bringing brows together.
- C.** Action of orbicularis oris, tightening upper lip.
- D.** Action of risorius/platysma, stretching lower lip.



Shock, worry, and horror are all equally plausible interpretations of this expression. The man is in fact in very frightening circumstances: he's watching troops firing into a crowd. His eyes are widely open; his mouth is tensed. Note (A) the horizontal creases of frontalis across the full forehead, (B) slight vertical creasing and bunching of corrugator (with eyebrow twist), and (C) mouth that has a just-dropped-open look, with slight sideways stretching of risorius/platysma.

FEAR: WORRY

This expression seems closer to daily life. It could be the face of someone talking on the phone who's just heard some disturbing news. The mouth is on the borderline between slightly stretched and neutral; the eyes are neutral, with a suggestion of the oblique lid fold **A**. The eyebrows and forehead are the clearest cues; eyebrows raised overall and kinked at **B** and **C**, forehead creased with full horizontal folds **D** and vertical corrugator folds **E**.



WORRY: A VARIATION WITH COMPRESSED LIPS

Nervous people tend to fidget, and mouth-pressing is an important form of nervous fidgeting. Watch people waiting in line to buy tickets for a train or a bus about to depart—the variety of lip-chewing or lip-pressing actions to be seen are countless. When compressed lips are seen with a worried brow, a strong picture of anxiety emerges.

This quintessential portrayal of wedding-day jitters is activated by a vivid expression, but it's really our ready identification with the plight of the groom that makes it work. The utterly deadpan face of his bride is the perfect foil for his discomfort. The groom's lips recall the lip shape in faces of repressed anger or sadness. (Note orbicularis oris bulge at **A**, triangularis bulge at **B**.) But here, he's not trying to prevent anything from happening; he's just using the mouth as an outlet for tension. The picture is completed by the lifted, wrinkled brow, and the disappearance of the red portion of the lips.



An ancient counterpart to the anxious face of the woman (opposite), this worried-looking monkey decorates the top of a ceramic jar from prehistoric Peru. Four simple elements combine to create the effect: (**A**) the slant of the face cutout clearly suggests up-raised, slanted eyebrows; (**B**) the circle-and-dots appear like widened eyes; (**C**) the mouth is opened and stretched sideways; (**D**) the hand is raised protectively to the face.



When subtle fear appears just in the eyes, we perceive that someone is worried, concerned, or anxious. Worry can be successfully portrayed if the eyes are clearly alert and the brows are clearly lifted and bent. The action in the eyes is especially important because the action in the mouth is missing; the eyes lack the wide, staring look of terror.

In silent movies, facial expression was especially important as a way to communicate the characters' state of mind. This 1920s film heroine is obviously feeling a bit threatened. Her fear is shown in her eyes; they're opened extra wide, and the lower lid is straightened. The brow alone wouldn't carry the message—it's so low that it could be the brow of fear or sadness. But sad eyes would never be that wide. Sadness is an inward-looking expression; fear is a greatly heightened looking-outward.

In Donatello's vision (opposite, bottom), St. George is hardly a macho warrior, but rather a sensitive youth. As he stands bolt upright, poised to defend the faith, his face wears an expression of morose concern. Note the bunching of skin around eyebrow at inner end, characteristic of corrugator action (A). Upper eyelid is slightly above normal alert threshold—if eyes were partly closed, he might look sad. Frontalis is also active (B).



In this poster, three nervous nurses wonder if they have what it takes to get their licenses—but the nurse in the middle seems to be wondering the most. Her eyebrows are the most up-slanted, her eye is the most wide opened. Oblique upper lid fold is a helpful detail. Though her mouth looks worried too, it's only by association with the upper face—her mouth, and those of the other two nurses, is neutral. The eyebrow shapes of the others border between neutral and afraid—not enough upward twist at inner end, no signature wrinkles.

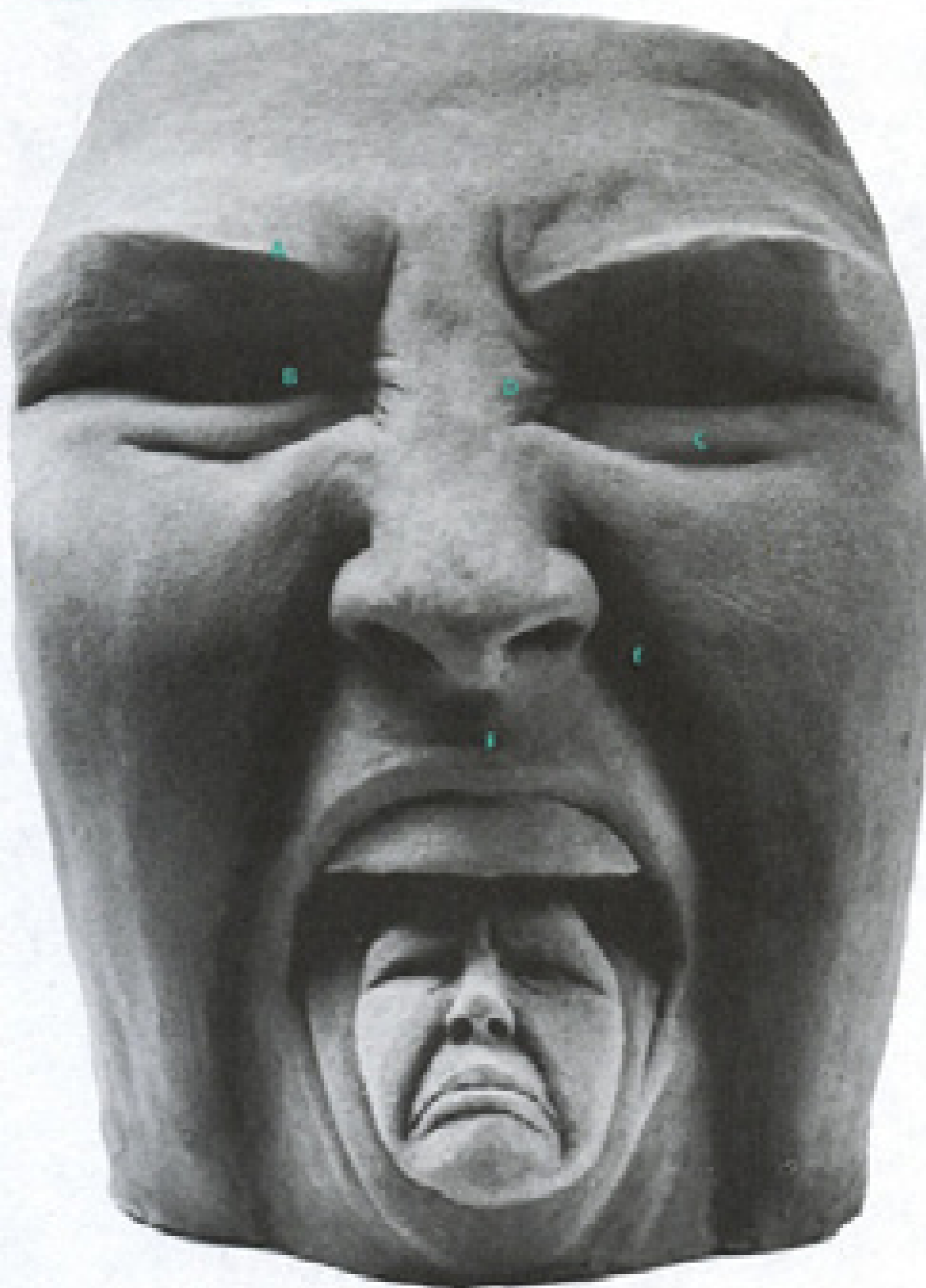
SUMMARY

Whether we call a face terrified, afraid, or just worried seems to depend mostly on the wideness of the eyes. If the eyes are wide enough, the message of horror comes across, even without much activity elsewhere in the face. In faces that are less afraid, the eyes are only a little bit wider than normal and must combine with a raised, slanted, or kinked eyebrow to be read as frightened. To show worry, the active brow must be combined with at least one other clue—slightly widened eyes, open mouth, or mouth pressed tightly closed.

The one generalization that will hold true for all the fear-related expressions is that if the upper lid is at all droopy, as it is in sadness, one will not conclude that any fear or worry is present, no matter what the rest of the face is doing. But even with the eye somewhat widened, fear becomes ambiguous as the amount of activity decreases.

In fact, the expression of fear on the face is really like the tip of a great iceberg of worry. There is far more anxiety in the world than ever appears on the face—most of us keep it buried deep inside, invisible perhaps even to ourselves. It takes truly extreme circumstances before we look as afraid as we sometimes feel. This is not counting the innumerable little nervous mannerisms that each of us enacts in our daily life as a sort of ongoing release for our fears and anxieties, only some of which involve the face, and most of which are unpaintable!





Disgust is a curious expression. No act is so purely physical and visceral as to retch in response to something we find stomach turning. Though a far cry from such unfitness, the sneer of disdain and turned-up nose of contempt are merely socially acceptable versions of the same action. At its heart, every expression of disgust is an attempt to eject something distasteful, an action that centers around the nose and mouth, and almost always brings on a frown.

EXTREME DISGUST: RETCHING

This unflinching, allegorical portrayal of the retch, by Nancy Fried, is in a category all its own—perhaps the only time this particular expression has been depicted in a sculpture. This contorted expression lies at the root of even the most discreet sneer. The act of ejecting something unwanted brings into play the powerful levator labii superioris, the sneering muscle. It pulls back the upper lip, raises up the cheeks, and triggers the squinting of the eyes and the lowering of the eyebrows. Less intense faces involve a different section of the same muscle. This remarkable sculpture is part of a series of self-portraits in which the artist sought to explore and exercise a variety of troubling emotions. The expression on the smaller face is somewhat ambiguous; it's somewhere between sternness/anger and the pout.

ACTIONS OF INNER BRANCH OF SNEERING MUSCLE — DIRECT AND INDIRECT

- A. Brow lowered—indirect.
- B. Eyes squinted—indirect.
- C. Curved fold under eye—direct.
- D. Inner star-wrinkles—direct.
- E. Creases alongside nose, deepest here—direct.
- F. Upper lip squared, pulled into face—direct.



With no need of a nose at all, this face contains the four elements defining the retch: frown, closed eyes, raised upper lip, prominent tongue.

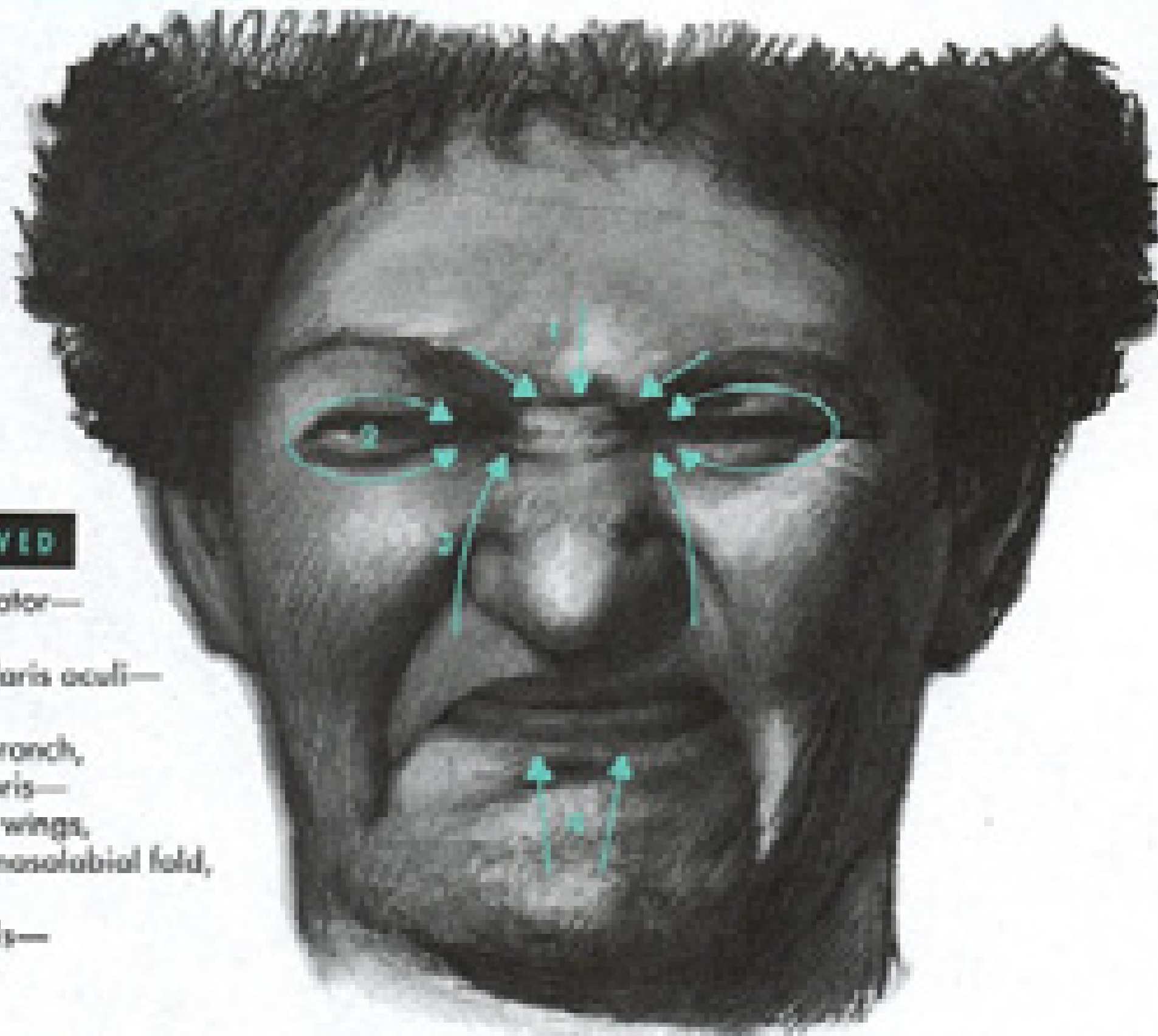

**EXTREME DISGUST:
THE FACE OF "YECCH"**

This woman is reacting to something that strongly offends her sense of taste, touch, or smell. We may sneer when we find the idea of something distasteful, but our gut must be involved to inspire a face like this. Most of the facial actions of the retch (previous page) are present, but the mouth remains shut (partly aided by the contraction of mentalis); the face is preparing for final stage that never comes.

The upward pull of the sneering muscle brings the upper lip closer to the nose and fills out the lip corners at **A**. Note pulling upward of the wings of the nose and deepening of creases alongside the nose (already present)—especially deep "sneer pocket" at **B**.

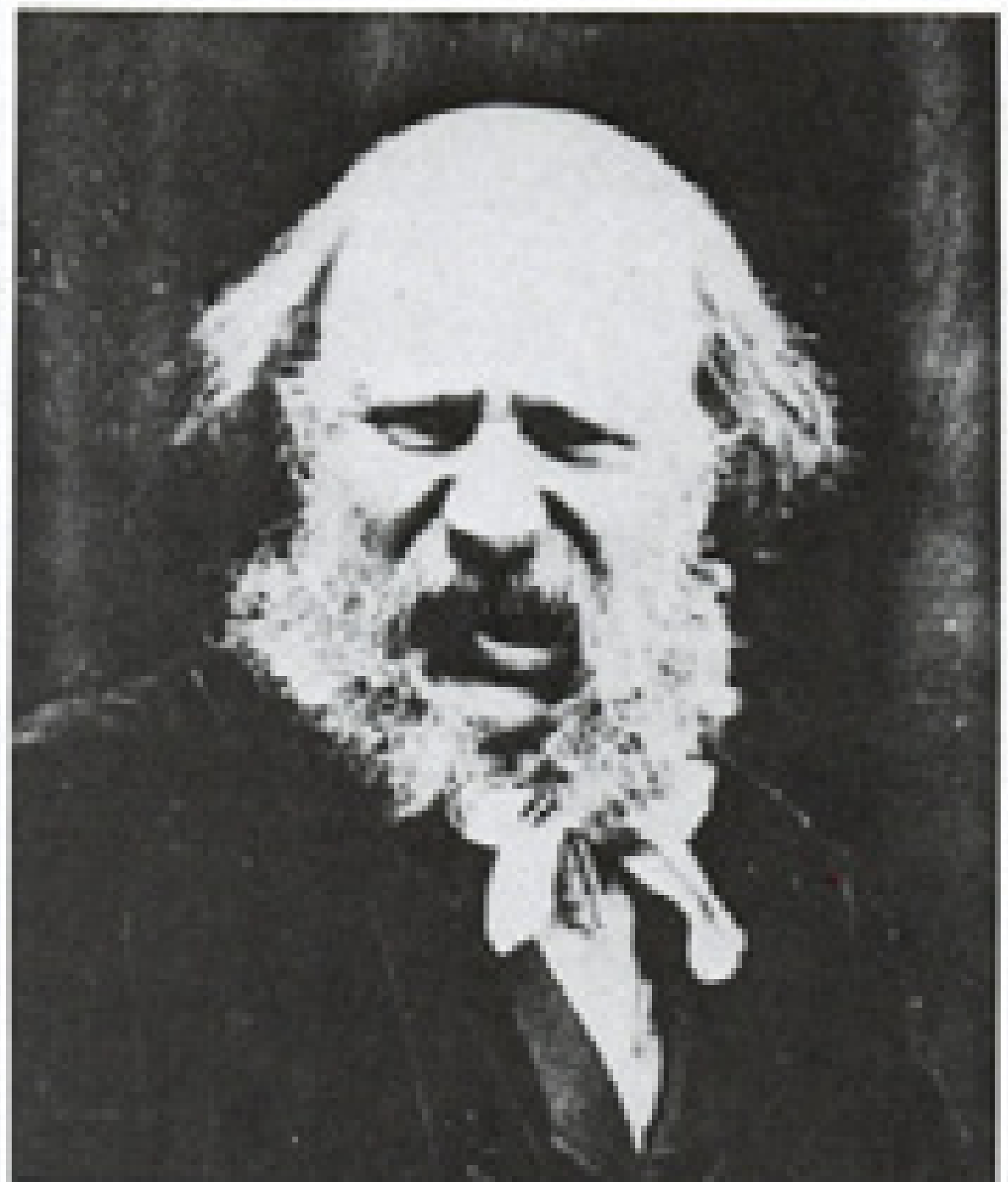


RELAXED MOUTH FOR COMPARISON



MUSCLES INVOLVED

1. Action of corrugator—lowers brow.
2. Action of orbicularis oculi—squints eye.
3. Action of inner branch, levator labii superioris—raises cheeks, nose wings, upper lip, deepens nasolabial fold, triggers 1 and 2.
4. Action of mentalis—pushes up lower lip, wrinkles chin.



Extreme disgust may be perceived without the upper lip being visible, as these posed expressions from Darwin's *Expression of the Emotions in Man and Animals* indicate. The deep creases around the nose wings and the pointing of the nose, combined with the squint and frown, are sufficient evidence. Gesture reinforces the idea of holding something repellent at bay.

Offended senses or offended sensibilities? The face of disgust grades into the face of disdain as the action shifts from the inner branch of the sneering muscle, which distorts much of the face, to the middle branch, which affects mainly the nose and mouth.

DISGUSTED

A sneer this strong is most likely a response to something physically repulsive, but it's right on the edge of being a sneer of disdain. With the middle branch of the sneering muscle active, the squinting and frown disappear, focusing the action on the pointed nose, the lifted and creased cheeks, and the squared-off upper lip. The action around the nose is a key part of the pattern; in disdain, a similar square lip is joined with a less pulled-up nose.

Note change in shape in nose, deepening of sneer pocket alongside nose wing, and widening of corner of upper lip. Action of mentalis (A) pushes up lower lip—otherwise lifting of the upper lip would bare the upper row of teeth.



RELAXED MOUTH FOR COMPARISON



Some terrible irony is suggested by this unhappy self-portrait of Nicolas Poussin. The world of his paintings is one of chill, classical perfection—scenes of an ideal and imaginary antiquity. Nothing so tortured looking and down to earth as this expression is even hinted at in his work. In many ways identical to the expression opposite (down to the balling of mentalis in the chin), this face nonetheless suggests mental discomfort as opposed to physical. The “sneer” in the nose is less pronounced; the activity in the brows and forehead is ambiguous—perhaps a frown, perhaps even a suggestion of sadness.

DISDAIN, SCORN, CONTEMPT

The real territory of disapproval is that of faces with no appreciable action around the nose, but with a distinct squaring of the upper lip.

The look of disdain (or scorn or contempt) is a facial expression that combines an instinctive element—the squaring of the upper lip—with more voluntary, reinforcing facial gestures. In this case the reinforcements come in two forms: the lowering of the upper lid and the turning away or lifting up of the head. There has been speculation that when we perform these actions, we're making the nonverbal statement that the person we disdain is beneath notice, not worth acknowledgement.

As with any marginal expression the subtlest flicker of the sneer on the upper lip—which we might pass over otherwise—can be made unambiguous if combined with one or two of these reinforcing elements, as a slightly sad brow is made less ambiguous by downcast eyes and a slumped posture.

SUMMARY

Disgust, disdain, contempt, sneering, all are names for the same general category of facial expression. Central to them all is the action of the sneering muscle, the levator labii superioris. Only in the most extreme version is the inner branch of the muscle involved. Otherwise, the more moderate middle branch is active. As the intensity of the expression diminishes, it goes from being a full-face expression, with changes visible from upper cheek to chin, to an expression that is mainly visible in the flat shape of the upper lip.

DISGUST; DISDAIN

With a wave of her manicured hand, the well-dressed woman below seems to dismiss our existence. The slight sneer is an expression more of disapproval than disgust. This is the expression of the snob.



The upper lip of the subject of this photo, Hollywood gossip columnist Hedda Hopper, is slightly but unmistakably squared off and pulled back into her face by the sneer muscle (with no corresponding change around the nose); her lower lip is pushed up by the mentalis to meet it.



The pose, the expression, and the effect are very much the equivalents of the picture above. A useful rule is that if the thicker middle portion of the upper lip is more than three-quarters of its length, a sneer is perceived, even without the pointing of the nose and creasing of the cheeks.



RELAXED

The sketch (above) indicates what the profile of the upper lip normally looks like. Though the usual squaring off is missing (right), the lip is clearly flattened and drawn backward, enough for us to read the sneer. The crease alongside the nose helps.



SNEERING



The acerbic social commentary of George Gross is here focused on an interaction between a well-heeled Berliner and the crippled soldier from whom he's buying matches. The theme of social isolation and cruelty is reinforced by the strongly marked expression of disdain. The gentleman neither looks at nor seems to acknowledge the soldier; his face is dominated by his narrowed eye and vaguely sneering upper lip.



Another snob. Context means a great deal in interpreting expression. Here the right setting (urban sophisticates) and the right characters (elderly gentry) make it easy for the cartoonist to get us to see the look of the grey-haired lady on the couch as comically disdainful. Her square lip appears a bit more arched than we'd expect (strong mentalis action, perhaps), and her nose seems no different from anyone else's; no matter—her narrowed-eye haughtiness is unmistakable.

"This is the Sandra Hollingsworth. The 'the' is underlined."

SURPRISE

Surprise is by far the most fleeting of all facial expressions. Though we all recognize surprise easily, most of us have never actually seen it other than in pictures. To be surprised means to be startled. As our sophistication increases, our ability to be surprised decreases. Children are easier to surprise than adults.

The French photographer Robert Doisneau took a series of photographs from a hidden camera of passersby reacting to this painting. There are two variations of the surprised mouth—either dropped open and relaxed (oval shaped) or O shaped with pursed lips, as here.

A. Action of frontalis: raises eyebrows, creating horizontal forehead wrinkles.

B. Action of levator palpebrae: raises upper eyelid, exposing white above iris.

C. Action of orbicularis oris: incisive portion pulls corners of mouth together, creating O shape and protruding lips.



An "oh" from prehistoric America. This piece speaks volumes about the power of artistic economy, the skill of a lost, indigenous culture, and the universality of the face of surprise. Like many such faces, this one was a motif, repeated innumerable times—for what purpose, no one knows. Most striking is the way the mound around the circular mouth precisely duplicates the look of the protruded lips of the woman above, adding considerably to the evocative power.

MOUTH DROPPED OPEN

Darwin offers an interesting explanation for why the mouth drops open in surprise, as in the face of the beauty contest winner below. When we're suddenly fixated on something, he writes, "the other organs of the body [i.e., muscles] are forgotten and neglected," and the jaw drops of its own weight. This also allows the deep intake of breath that follows a sudden shock—a preparation for "jumping away from the danger, which we habitually associate with anything unexpected." That she's not frightened we judge from her relaxed mouth and un-kinked eyebrows. Her smooth forehead shows no wrinkling of frontalis, though her eyebrows appear to be lifted; this is not uncommon.



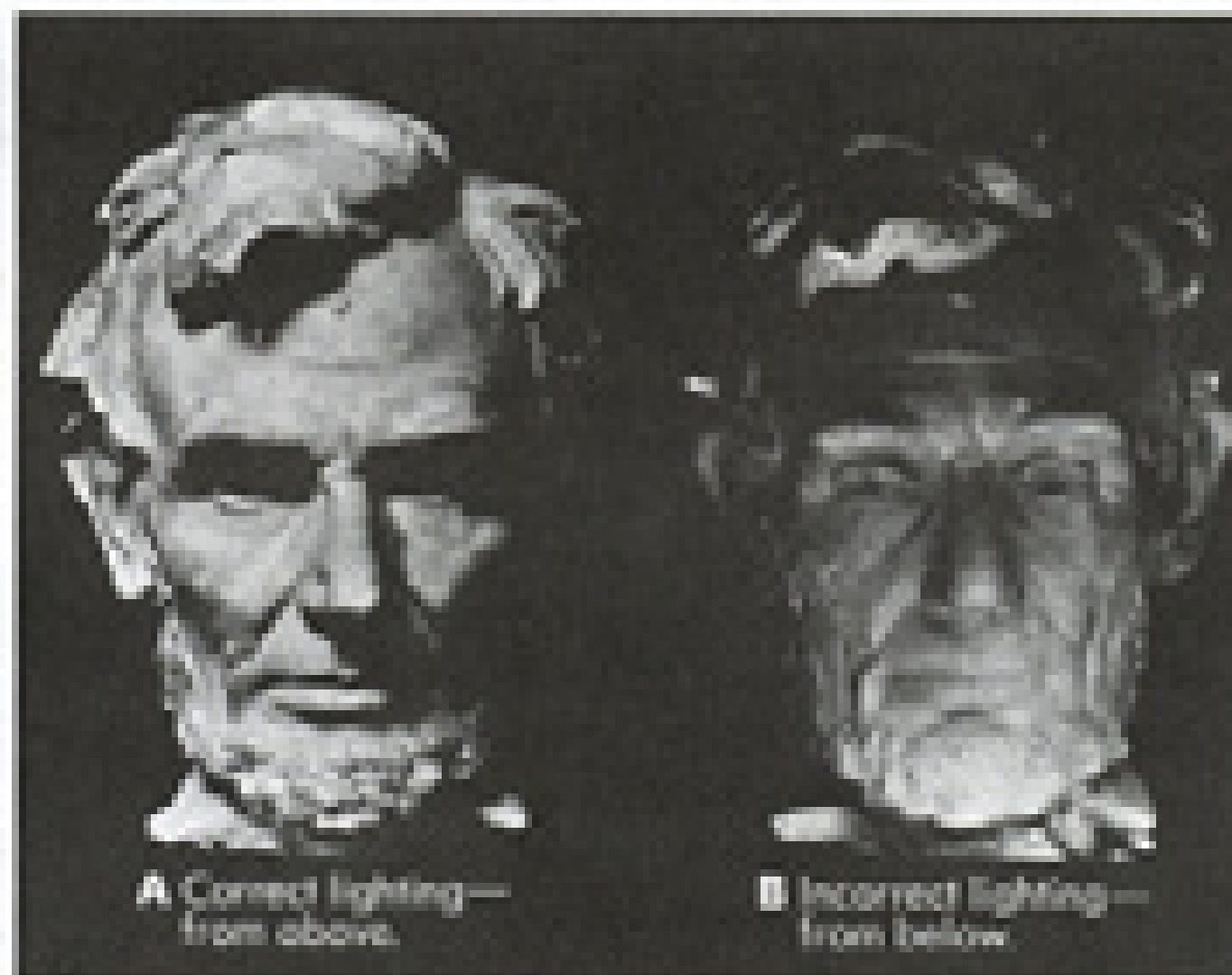


The slack-jawed blacksmith in the middle is staring at the sudden appearance of a god—Apollo has just materialized in his forge. Surprise, like anger and fear, is dominated by the eyes. The wider the eyes, the more surprised the look. Velázquez has chosen to make his blacksmith only appear moderately surprised—the effect of the open, relaxed mouth, raised eyebrows, and eye only a bit wider than normal. If we were to see white above his iris, he would look much more amazed.



THE STARTLED STATUE

Attentive readers of the *New York Times* of January 18, 1989, noticed something distinctly odd about an otherwise routine photo of the President-elect and Vice-President-elect and their wives, taken during a pre-inaugural ceremony. The colossal statue of Abraham Lincoln, for most of this century a thoughtful and remote presence in its memorial, appeared for all the world to have awakened with a start, betraying the utmost astonishment at the goings-on at its feet. What accounted for this strikingly lifelike transformation? Was the *Times* trying to make a covert political statement? Were statues learning to walk?



The “startled” statue is an accidental effect of light and shadow. The sculptor of the Lincoln Memorial, Daniel Chester French, was so concerned about the potential of light to alter Lincoln’s expression that he sent the commission responsible for the memorial a photo showing: (A) how it should be lit, and (B) how it should under no circumstances be lit. In the early

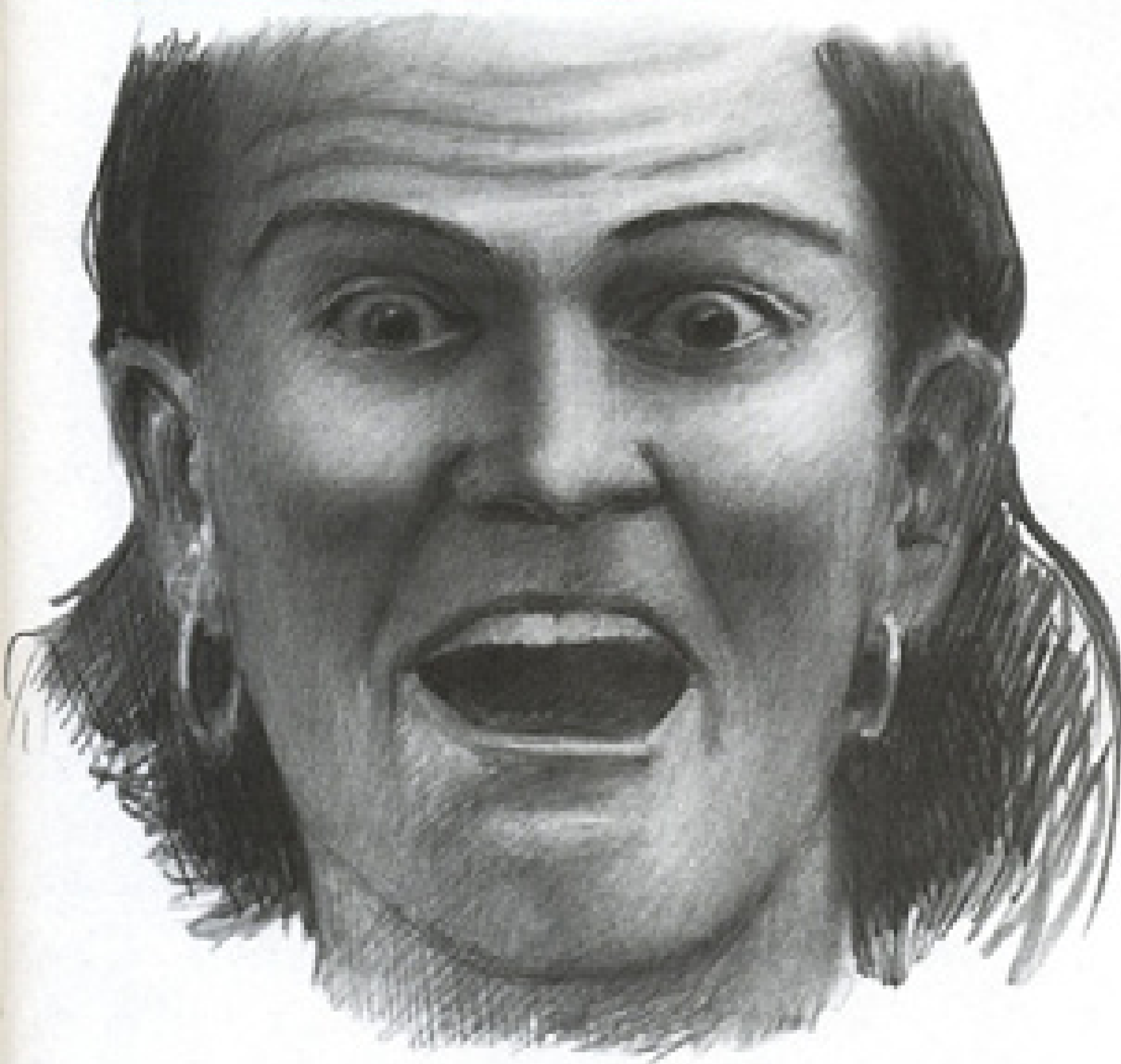
1920s spotlights were installed to light the statue from above, as French wished, but for the Bush-Quoyle inauguration, it was decided to temporarily light the statue from below, leading to just the change in expression French had warned against. Lit correctly, Lincoln wears what French described as the expression of “confidence in his ability to carry the thing through.”

WHY LIGHTING CHANGES THE EXPRESSION



In correct lighting, eyebrows cast shadow at 1, giving impression of lowered, thoughtful brows. Incorrect light from below casts shadows at 2, which appear like raised, arched eyebrows; edge 1 disappears. Eyelids repeat pattern—real edge 3 is washed out; shadow at 4 makes upper lid appear enormously high above iris; raised eyebrow plus widened eye equal surprise.

SURPRISE, COMBINED WITH JOY

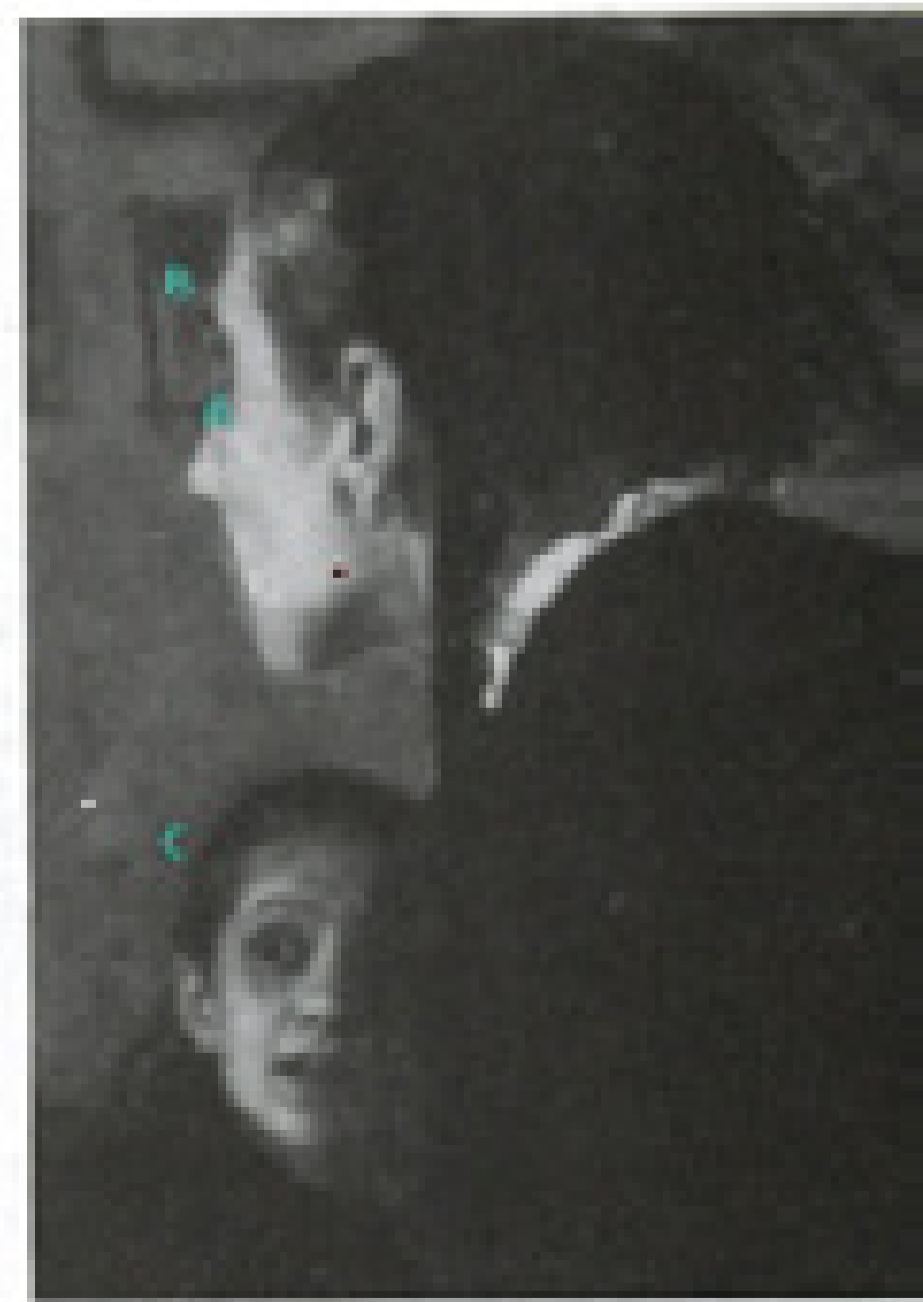


When we're surprised by something pleasant, surprise may be tinged with joy. We're aware of the joy primarily because of two elements, normally absent in the face of surprise: a slightly tensed, widened mouth and a slight bulging in the cheeks.

This woman has just won a contest—in this case a golf tournament. Her mouth shape is midway between the relaxed oval of pure surprise and the bow shape of the laugh. Her lower cheeks have begun to fill out under the influence of the zygomatic major, but her upper face is all surprise (as you can see by covering her mouth and cheeks). This face is closely related to the "eager smile"; there, pleasure was dominant, here it's surprise.



Here the pleasure component is more subtle. This painting by Ilya Repin concerns the unannounced homecoming of a man returning from Siberian exile. Though the action around the mouth of the surprised girl (C) is slight, the widening and turning upward at the corner, combined with beginning of bulging and creasing in the cheeks, is sufficient for us to see her as pleased and surprised. The risen, older woman shows no expression at all; even from the rear, we would see her smile by a bulge at A; we'd see her eyebrows lifted at B.





Two self-portraits by the Austrian artist Egon Schiele. In the drawing (left), the artist portrays himself with the quintessential self-portrait expression: intensity/attention. Frowning is a natural accompaniment to the hard, concentrated work of drawing; just as natural is a slight widening of the eyes, as seen here, that marks extra-alertness. A large number of artists' self-portraits betray some degree of the thoughtful frown.



The expression of Schiele's mouth here, however, is unique; it's pursed up in what appears like a whistle. This is another category of non-emotional expression, the sort of nervous movement of the mouth that many people make when they're hard at work. His model wears quite another kind of face: her narrowed eyes and slight grin suggest the seductive smile (p. 231).



In the painting (right), Schiele has chosen to portray his face with the gesture of the raised brow. The simple raised brow may indicate a mood of heightened attention; that seems to be its meaning here. The distant, self-absorbed look of his wife is the combined result of her downward gaze and her eyes being slightly out of convergence.



Expressions in Brief

SADNESS



CRYING: OPEN-MOUTHED

EYEBROWS

Entire brow lowered, especially inner corner, which is angled sharply downward. Roll of skin piles up above brow.

EYE

Reduced to nearly a single line by compression of orbicularis oculi. The stronger the action, the straighter and thinner the line of the joined lids.

MOUTH

Open moderately wide and stretched sideways as far as possible. Overall shape is rectangular. Upper lip squared off at corners; lower lip straight, often bowed up in the middle. Both lips smooth and taut.

SIGNATURE WRINKLES

1. Crow's feet and lower lid fold
2. Star-wrinkles from inner eye
3. Vertical lines between eyebrows, dimples above
4. Joined crease from nose to chin
5. Mentalis bulge
6. Cord-like folds alongside chin

SIMILAR TO

LAUGHING: No wrinkles 2 or 3; mouth stretched up, back, not out. Upper teeth show from tip to base.
PAIN: Eyes may be open, or less tightly shut; mouth in shout position.



CRYING: CLOSED MOUTH

EYEBROWS

Entire brow lowered, especially inner corner, which is angled sharply downward. Roll of skin piles up above brow.

EYE

Reduced to nearly a single line by compression of orbicularis oculi. The stronger the action, the straighter and thinner the line of the joined lids.

MOUTH

Stretched as wide as possible and closed with moderate force. Sharp fold under lower lip; it may turn outward. Tautness, trembling of lips.

SIGNATURE WRINKLES

1. Crow's feet and lower lid fold
2. Star-wrinkles from inner eye
3. Vertical lines between brows, dimples above
4. Nasolabial fold, deepest in mid-cheek
5. Mentalis bulge
6. Hook-shaped folds by mouth

SIMILAR TO

STIFLED LAUGH: No wrinkles 2 or 3; less sneer in top lip or side stretch in both lips. Eyes slightly open.
PAIN: Eye clenching more extreme, cheeks not as rounded. No mouth stretching or wrinkles 5 and 6.



SUPPRESSED SADNESS

EYEBROWS

Inner third (closest to middle of face) bent upward or at least kinked. Skin below piles in kidney-shaped knob.

EYE

Slightly narrowed by downward pressure of oblique above-the-lid fold and upward movement of lower lid. Bag under eye.

MOUTH

Squeezed tight by the three-muscle press. Lip margins disappear. LBL straight, puffiness around lips.

SIGNATURE WRINKLES

1. Horizontal across-the-brow folds (middle of forehead only)
2. Vertical lines between eyebrows, dimples above
3. Smile-shaped fold under lower lid
4. Oblique above-the-lid fold
5. "Floating" crease of eye, minor
6. Hook-shaped fold alongside mouth
7. Barbell bulge under mouth
8. Mentalis bulge

SIMILAR TO

SUPPRESSED ANGER: Mouth is not stretched; eyes opened wider, with eyebrows down, not up.
EXERCISE: Mouth not stretched; eyebrows down, not up. Eye may be clenched tightly shut.



NEARLY CRYING

EYEBROWS

Inner third (closest to middle of face) bent upward or at least kinked. Skin underneath piles up in kidney-shaped knob.

EYE

Slightly narrowed by downward pressure of oblique above-the-lid fold and upward movement of lower lid. Bag under eye.

MOUTH

Moderately stretched, with strong sneer in upper lip. Sharp fold under lower lip.

SIGNATURE WRINKLES

1. Horizontal across-the-brow folds (middle of forehead only)
2. Vertical lines between eyebrows, dimples above
3. Smile-shaped fold under lower lid
4. Oblique above-the-lid fold
5. "Floating" crease of zygomatic minor
6. Hook-shaped fold alongside mouth
7. Barbell bulge under mouth
8. Mentalis bulge

SIMILAR TO

No expression is similar.



MISERABLE

EYEBROWS

Inner third (closest to middle of face) bent upward, or at least kinked. Skin underneath piles up in kidney-shaped knob.

EYE

Slightly narrowed by downward pressure of oblique above-the-lid fold. Lower lid may move up, accompanied by bag under eye.

MOUTH

Pouting. Upper lip squared off—center section extra long. Sharp fold under lower lip.

SIGNATURE WRINKLES

1. Horizontal across-the-brow folds (middle of forehead only)
2. Vertical lines between eyebrows, dimples above
3. Smile-shaped fold under lower lid
4. Oblique above-the-lid fold
5. "Floating" crease of zygomatic minor
6. Mentalis bulge

SIMILAR TO

WORRY: Eyes are wider, eyebrows are usually higher. No pout or wrinkle 4.



SAD

EYEBROWS

Inner third (closest to middle of face) bent upward, or at least kinked. Skin underneath piles up in kidney-shaped knob.

EYE

Slightly narrowed by downward pressure of oblique above-the-lid fold and upward movement of lower lid. Bag under eye.

MOUTH

Relaxed.

SIGNATURE WRINKLES

1. Horizontal across-the-brow folds (middle of forehead only)
2. Trace of vertical line between eyebrows, dimples above
3. Oblique above-the-lid fold
4. Smile-shaped fold may appear under lower lid

SIMILAR TO

WORRY: Eyes are wider, eyebrows may be higher. At times may appear very similar.

NEUTRAL: Eyebrows are relaxed, forehead is smooth.



**ENRAGED:
SHOUTING**

EYEBROWS

Inner corner pulled downward and toward the center of face. Lower edge of eyebrow falls below level of upper lid.

EYE

Opened extra-wide, though pressure of descended brow prevents white from showing above the iris. Upper eyelid rises at angle greater than 45 degrees. Lower lid tight.

MOUTH

Opened and stretched sideways, with overall rectangular shape. Upper lip squared-off in a sneer, lower lip margin straight. Both upper and lower teeth show.

SIGNATURE WRINKLES

1. Vertical lines between the eyebrows, dimples above
2. Horizontal above-the-lid fold
3. Smile-shaped fold below lower lid (may not show)
4. Joined crease from nose to chin
5. Bracket folds at mouth corners

SIMILAR TO

No other expression is similar.



**ENRAGED:
COMPRESSED LIPS**

EYEBROWS

Inner corner pulled downward and toward the center of face. Lower edge of eyebrow falls at or just below level of upper lid.

EYE

Opened extra-wide, though pressure of descended brow prevents white from showing above the iris. Outer eyelid angle greater than 45 degrees.

MOUTH

Tightly compressed. Lips narrowed to thin lines and surrounded by bulging skin, especially below.

SIGNATURE WRINKLES

1. Vertical lines between the eyebrows, dimples above
2. Horizontal above-the-lid fold
3. Smile-shaped fold below lower lid (may not show)
4. Hook-shaped fold alongside mouth
5. Barbell bulge under mouth
6. Mentalis bulge

SIMILAR TO

SUPPRESSED SADNESS: Mouth is stretched; eyes narrowed, with eyebrows up, not down.

EXERTION: Eyes are narrowed, not widened.



MAD

EYEBROWS

Inner corner pulled downward and toward the center of face. Lower edge of eyebrow falls at or just below level of upper lid.

EYE

Opened wide, though pressure of descended brow prevents white from showing above the iris. Outer eyelid angle greater than 45 degrees.

MOUTH

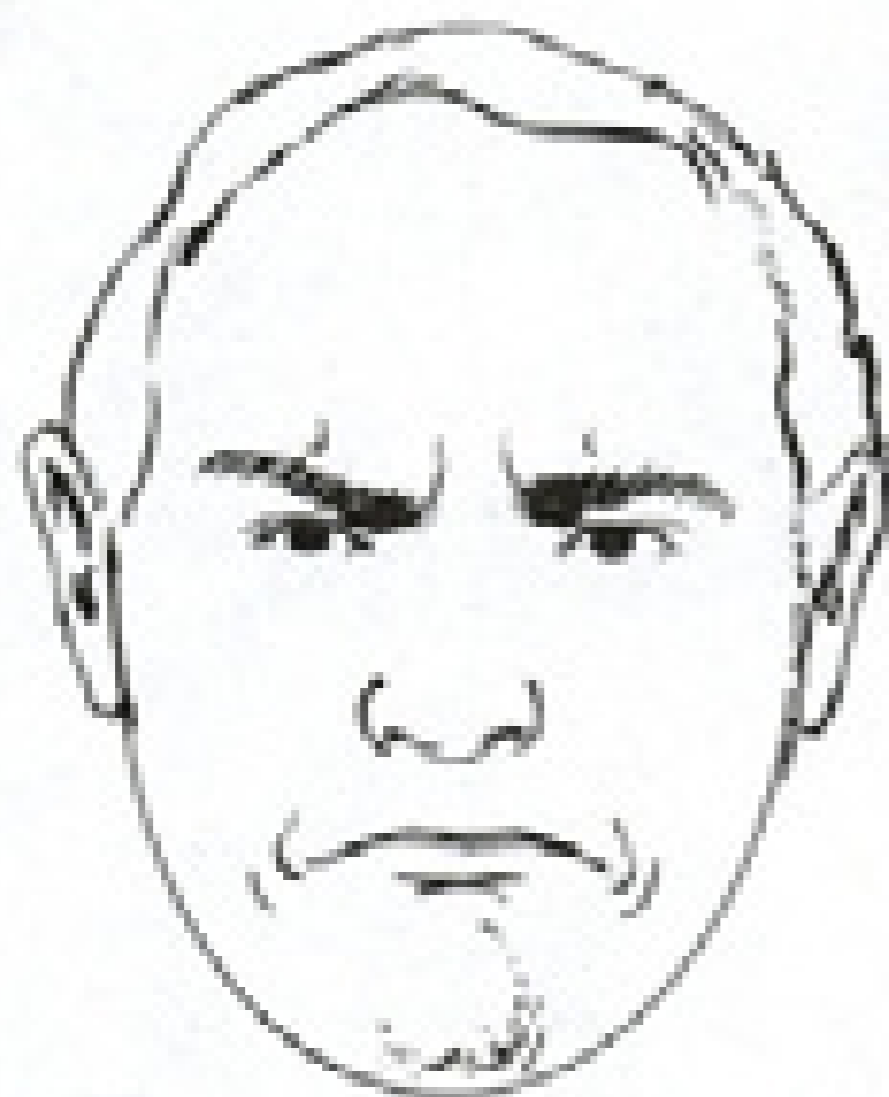
Upper lip may be slightly squared off or slightly compressed.

SIGNATURE WRINKLES

1. Vertical lines between the eyebrows, dimples above
2. Horizontal above-the-lid fold

SIMILAR TO

INTENSITY/ATTENTION or **PERPLEXED:** Both are half-face expressions with mouth relaxed. Both involve less widening of the eye.



STERNNESS/ ANGER

EYEBROWS

Inner corner pulled downward and toward the center of face. Lower edge of eyebrow falls at or just below level of upper lid.

EYE

Opened normally but appears narrower because of downward pressure on upper lid.

MOUTH

Compressed in a sort of pout. Lip arched like upside-down smile, with narrowed upper lip and pushed up lower. Sharp crease under lower lip.

SIGNATURE WRINKLES

1. Vertical lines between the eyebrows, dimples above
2. Mentalis bulge
3. Hook-shaped folds alongside mouth

SIMILAR TO

INTENSITY/ATTENTION or **PERPLEXED**: Both are half-face expressions with mouth relaxed. May be quite similar.



UPROARIOUS LAUGHTER

EYEBROWS

Relaxed.

EYE

Squeezed shut by compression of orbicularis oculi, but without strained look of crying. The stronger the action, the straighter and thinner the line of the joined eyelids.

MOUTH

Opened and widened. High corners; straight upper lip, lower lip straight in middle with almost vertical outer legs. Most of upper teeth revealed; tips of lower teeth may also show.

SIGNATURE WRINKLES

1. Crow's feet and lower lid fold
2. Star-wrinkles from inner eye corner
3. Joined crease from nose to chin
4. Chinstraps

SIMILAR TO

YAWNING: In yawn, cheeks are not full, mouth is taller than wide, and upper teeth don't show. Eyebrows are usually active, either pulled up or pulled down.



LAUGHTER

EYEBROWS

Relaxed.

EYE

Closed or very slightly opened; lids meet in a gently bowed line; full lower lid.

MOUTH

Widened and opened. High corners; straight upper lip, lower lip straight in middle, sharply angled outer legs. Upper teeth show, tips of lower only.

SIGNATURE WRINKLES

1. Crow's feet and smile-shaped fold under eye
2. Joined crease from nose to chin
3. Chinstraps

SIMILAR TO

CRYING: In crying, corrugator contracts, lowers eyebrow; full orbicularis oculi contracts, clenching eye shut with stress pattern of wrinkles; only tips of upper teeth usually show; lower lip stays low, exposing teeth in mouth corner.

FALSE LAUGHTER: In false laughter, eyes are more widely opened, and cheeks less full, without wrinkles 1.


**SMILING:
OPEN-MOUTHED**
EYEBROWS

Relaxed.

EYE

Crescent-shaped. Upper lid lowered slightly; lower lid straight and high with fullness underneath.

MOUTH

Widened with corner pulled back toward ear. Upper lip straight, showing upper teeth, lower lip straight in middle, angled outer legs.

SIGNATURE WRINKLES

1. Crow's feet and smile-shaped fold under eye
2. Joined crease from nose to chin
3. Dimples

SIMILAR TO

FALSE SMILE: In false smile, degree of smile is not matched by degree of contraction around eye—eye is wider, lower lid not as tight, cheeks not as full.


**SMILING:
CLOSED-MOUTH**
EYEBROWS

Relaxed.

EYE

Crescent-shaped. Upper lid lowered slightly; lower lid straight and high with fullness underneath.

MOUTH

Widened with corner pulled back toward ear. LBL. taut with overall V shape. Lips smooth and thinned; both lips move upward and press tighter against skull.

SIGNATURE WRINKLES

1. Crow's feet and smile-shaped fold under eye
2. Deepened nasolabial fold
3. Dimples

SIMILAR TO

FALSE SMILE: In false smile, degree of smile is not matched by degree of contraction around eye, so eye is wider, lower lid not as tight, cheeks not as full.


**STIFLED
SMILE**
EYEBROWS

Relaxed.

EYE

Crescent-shaped. Upper lid lowered slightly; lower lid straight and high, with fullness underneath.

MOUTH

Widened, tensed, and narrowed. Middle of lips smile, but outer legs curve back toward ear and do not rise; they may even bend slightly downward. LBL. straightened and lengthened.

SIGNATURE WRINKLES

1. Crow's feet and smile-shaped fold under eye
2. Nasolabial fold, deepest near mouth and ending abruptly
3. Dimples
4. Hook-shaped folds alongside mouth
5. Mentalis bulge

SIMILAR TO

EXERTION: Eyes are either squeezed shut or squinting without fullness of lower lid; cheeks are flat, not full; mouth is more thinned and not widened, with no wrinkle 2.



MELANCHOLY SMILE

EYEBROWS

Inner third (closest to middle of face) bent upward or at least kinked.

EYE

Slightly narrowed. Upper lid lowered slightly; lower lid straightened and higher with fullness underneath.

MOUTH

Widened with corner pulled back toward ear. LBL taut with overall V shape. Lips smooth and thinned; both lips move upward and press tighter against skull.

SIGNATURE WRINKLES

1. Slight signs of crow's feet and smile-shaped fold under eye
2. Deepened nasolabial fold
3. Dimples
4. Horizontal brow folds in middle of forehead
5. Oblique above-the-lid fold

SIMILAR TO

SAD: Mouth in sadness does not curve upward; nasolabial fold is deeper closer to nose, and mentalis bulge appears on chin. However, melancholy smile may be interpreted as being more sad than happy because of powerful effect of sad eyes.



EAGER SMILE

EYEBROWS

May be raised straight up.

EYE

Crescent-shaped with upper lid lifted extra high, perhaps showing white above iris. Lower lid straight and high with fullness underneath.

MOUTH

Widened with corner pulled back toward ear. Upper lip straight, showing upper teeth, lower lip straight in middle, angled outer legs.

SIGNATURE WRINKLES

1. Crow's feet and smile-shaped fold under eye
2. Deepened nasolabial fold
3. Dimples

SIMILAR TO

FALSE SMILE: In forced smile, upper lid and eyebrows are sometimes lifted, but are not matched by fullness in cheeks and lower lid.



INGRATIATING SMILE

EYEBROWS

Similar to fear. Overall lift with extra curl and kink at inner end.

EYE

Crescent-shaped. Upper lid lowered slightly; lower lid straight and high with fullness underneath.

MOUTH

Widened with corner pulled back toward ear. LBL taut with overall V shape. Lips smooth and thinned; both lips move upward and press tighter against skull.

SIGNATURE WRINKLES

1. Horizontal wrinkles in middle of forehead
2. Vertical folds between the eyebrows
3. Crow's feet and smile-shaped fold under eye
4. Deepened nasolabial fold
5. Dimples

SIMILAR TO

No other expression is similar.

**SLY SMILE****EYEBROWS**

Inner corner pulled downward and toward the center of face. Lower edge of eyebrow falls below level of upper lid.

EYE

Narrowed from above by downward pressure of brow and from below by slight contraction of muscle of lower lid.

MOUTH

Widened with corner pulled back toward ear. LBL taut with overall V shape. Lips smooth and thinned; both lips move upward and press tighter against skull.

SIGNATURE WRINKLES

1. Vertical lines between the eyebrows, dimples above
2. Smile-shaped fold under eye
3. Deepened nasolabial fold
4. Dimples

SIMILAR TO

No other expression is similar.

**DEBAUCHED SMILE****EYEBROWS**

Vary. May be lifted overall in effort to forestall drowsiness, or lift may be asymmetrical, as here.

EYE

Upper lid droops over iris, covering part of pupil. Lower lid may be tightened and higher with fullness underneath. May drift out of convergence.

MOUTH

Widened with corner pulled back toward ear. LBL taut with overall V shape. Lips smooth and thinned; both lips move upward and press tighter against skull.

SIGNATURE WRINKLES

1. Horizontal wrinkles across part of forehead
2. Crow's feet and smile-shaped fold under eye
3. Deepened nasolabial fold
4. Dimples

SIMILAR TO

No other expression is similar.

**CLOSED-EYE (ABASHED) SMILE****EYEBROWS**

Relaxed.

EYE

Eyes may be gently closed or looking downward.

MOUTH

Widened with corner pulled back toward ear. LBL taut with overall V shape. Lips smooth and thinned; both lips move upward and press tighter against skull.

SIGNATURE WRINKLES

1. Crow's feet and smile-shaped fold under eye
2. Deepened nasolabial fold
3. Dimples

SIMILAR TO

No other expression is similar.



FALSE SMILE

EYEBROWS

Usually relaxed, though may also be raised as in eager smile.

EYE

Slightly narrowed, but not narrowed enough to match wideness of smile.

MOUTH

Widened with corner pulled straight back, not upward toward ear. Upper lip straight, showing upper teeth. Lower lip has extra-long straight middle section, showing lower teeth and lower mouth corner. Mouth shape is squarer than in relaxed smile.

SIGNATURE WRINKLES

1. Crow's feet and slight smile-shaped fold under eye
2. Deepened nasolabial fold
3. Dimples

SIMILAR TO

OPEN-MOUTHED SMILE: In natural smile, eyes are narrowed, with cheek and lower lid more full. Shape of mouth in natural smile is more angular in lower half, not as square—lower teeth don't show.



FALSE LAUGHTER 1

EYEBROWS

Relaxed.

EYE

Narrowed by lowering of upper lid and raising of lower, but iris is still clearly visible, looking outward.

MOUTH

Widened and opened. High corners; straight upper lip, lower lip straight in middle, sharply angled outer legs. Upper teeth show, tips of lower only.

SIGNATURE WRINKLES

1. Only slight crow's feet and shallow smile-shaped fold under eye may be entirely absent
2. Joined crease from nose to chin
3. Chinstraps/dimples

SIMILAR TO

LAUGHTER: When laughter is sincere, eye is almost entirely hidden between tightened lids and bordered below by full lower lid. Balled-up cheek is crossed by deep crow's feet wrinkles.



FALSE LAUGHTER 2

EYEBROWS

Relaxed.

EYE

Closed and relaxed, with simple curved lash line and few wrinkles.

MOUTH

Widened and opened. High corners; straight upper lip, lower lip straight in middle, sharply angled outer legs. Upper teeth show, tips of lower only.

SIGNATURE WRINKLES

1. Only slight crow's feet and shallow smile-shaped fold under eye may be entirely absent.
2. Joined crease from nose to chin
3. Chinstraps/dimples

SIMILAR TO

LAUGHTER: When we laugh with our eye closed, contraction around eye makes joint lid line much straighter. Cheeks and lower lids are much more full, with deep network of crow's feet wrinkles.

**TERROR****EYEBROWS**

Lifted straight up and pulled closer together, with innermost third of eyebrow bent upward or at least kinked. Eyebrow appears more straight than arched.

EYE

Opened as wide as possible, often with taut, raised lower lid.

MOUTH

Opened and widened. Most of the widening is at the level of the lower lip, which is stretched straight and tight. Upper lip is relaxed. Upper teeth hidden or show only tips; lower teeth exposed from corner to corner.

SIGNATURE WRINKLES

1. Horizontal brow folds
2. Vertical lines between eyebrows, dimples above
3. Oblique across-the-eyelid fold
4. Shallow, straight nasolabial fold
5. Bracket folds alongside lower lip

SIMILAR TO

SURPRISE: Surprised mouth is completely relaxed—oval in shape rather than rectangular. Surprised eyebrows lifted straight up without kinking or wrinkles 2.

**VERY
FRIGHTENED****EYEBROWS**

Lifted straight up and pulled closer together, with innermost third of eyebrow bent upward or at least kinked. Eyebrow appears more straight than arched.

EYE

Opened very wide.

MOUTH

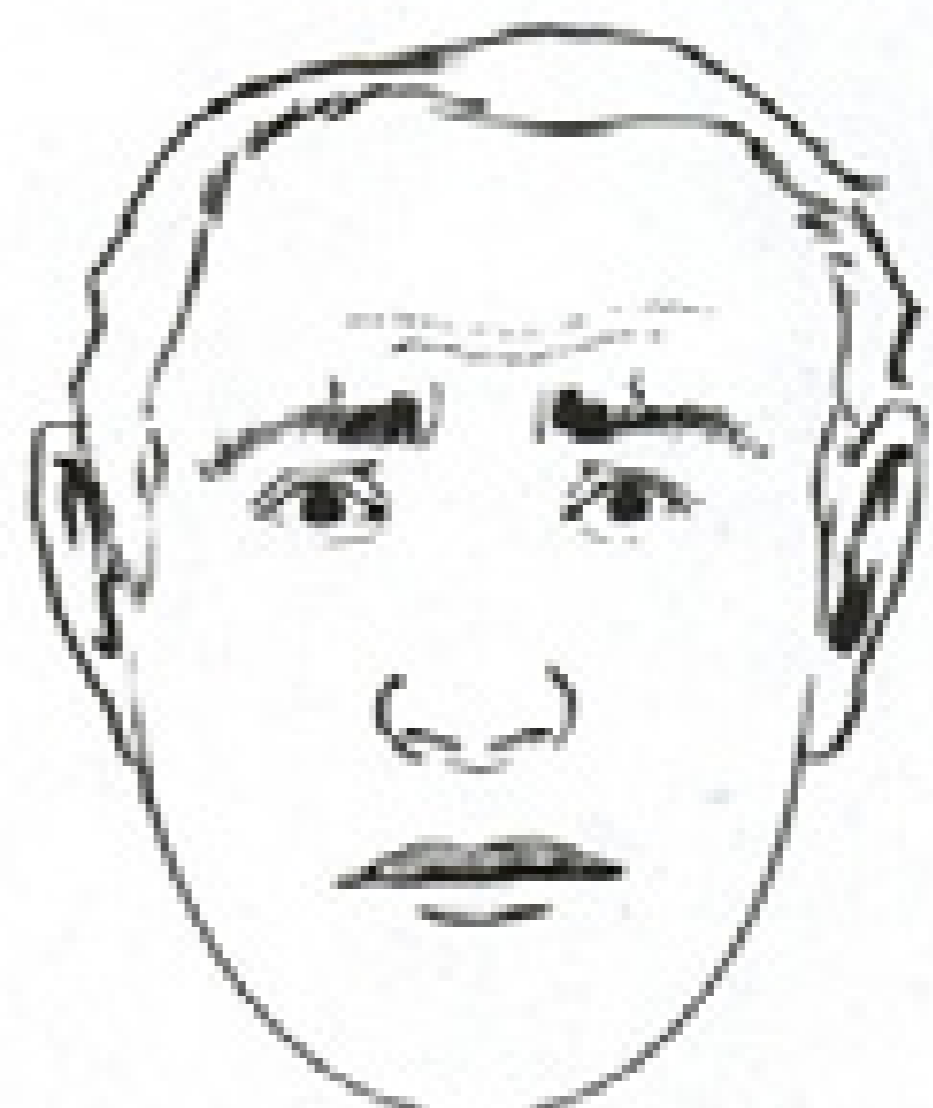
Opened and widened. Most of the widening is at the level of the lower lip, which is straightened somewhat. Upper lip is relaxed. Upper teeth hidden or show only tips; lower teeth exposed from corner to corner.

SIGNATURE WRINKLES

1. Horizontal brow folds
2. Vertical lines between eyebrows, dimples above
3. Oblique across-the-eyelid fold
4. Shallow, straight nasolabial fold
5. Bracket folds alongside lower lip

SIMILAR TO

SURPRISE: Surprised mouth is completely relaxed—oval in shape rather than rectangular. Surprised eyebrows lifted straight up without kinking or wrinkles 2.

**AFRAID****EYEBROWS**

Lifted straight up and pulled closer together, with innermost third of eyebrow bent upward or at least kinked. Eyebrow appears more straight than arched.

EYE

Alert, but not opened much wider than usual.

MOUTH

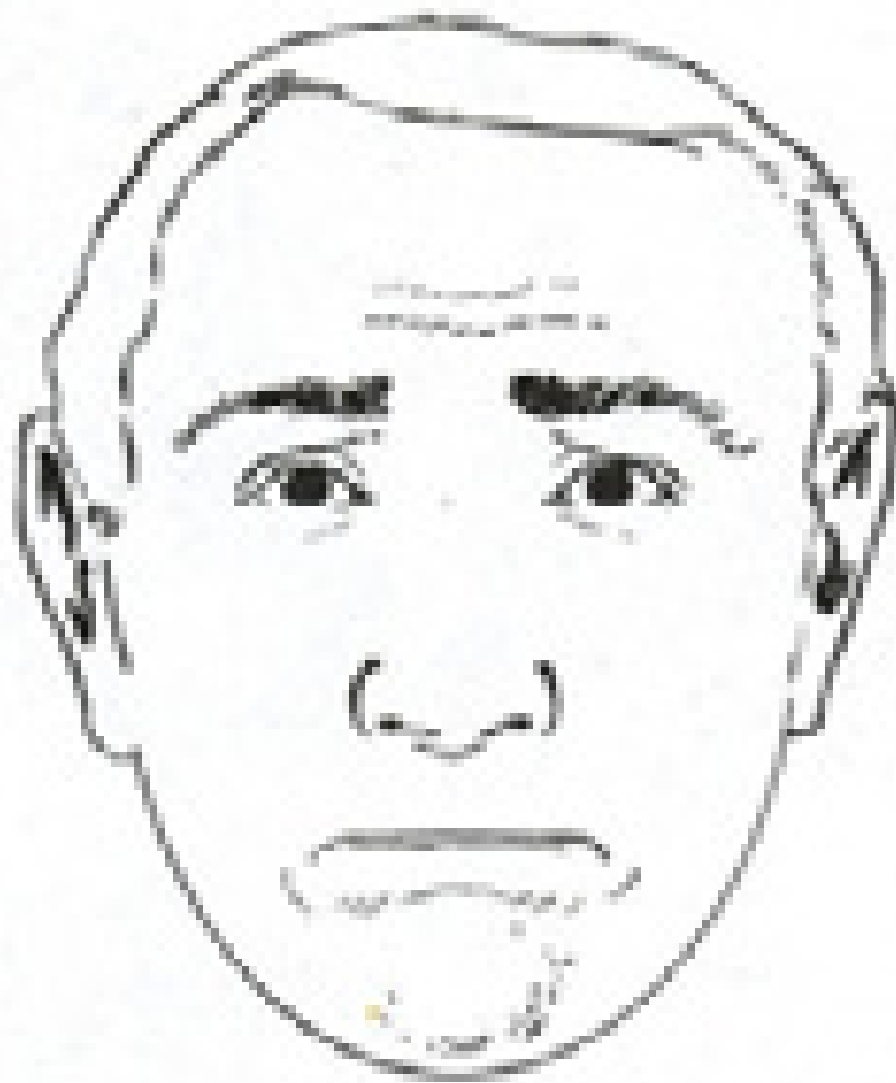
May be slightly dropped open or slightly dropped open and stretched sideways.

SIGNATURE WRINKLES

1. Horizontal brow folds
2. Vertical lines between eyebrows, dimples above
3. Oblique across-the-eyelid fold

SIMILAR TO

SADNESS: In sadness the eyes are always narrowed, not widened. The eyebrows kink, but do not lift. Mouth is often in pout, with "floating" wrinkle of zygomatic minor appearing between nose and mouth. However, there are times when the expressions seem indistinguishable, particularly if eyes aren't especially widened.

**WORRIED****EYEBROWS**

Lifted straight up and pulled closer together, with innermost third of eyebrow bent upward or at least kinked. Eyebrow appears more straight than arched.

EYE

Alert, but not widened.

MOUTH

Squeezed tight by the three-muscle press. Lip margins disappear, LBL straight, puffiness around lips.

SIGNATURE WRINKLES

1. Horizontal brow folds
2. Vertical lines between eyebrows, dimples above
3. Oblique across-the-eyelid fold
4. Hook-shaped fold alongside mouth
5. Barbell bulge under mouth
6. Mentalis bulge

SIMILAR TO

SUPPRESSED SADNESS: In sadness, mouth is stretched sideways as well as compressed. Eyes are narrowed, not widened, and eyebrows aren't lifted upward. Nasolabial fold appears deepened in suppressed sadness, and cheeks may swell.

**PHYSICAL REPULSION****EYEBROWS**

Entire eyebrow lowered, especially inner corner, which is angled sharply downward.

EYE

Partly shut in a squint. Further compressed by downward pressure on upper lid of frowning brow.

MOUTH

Upper lip raised and flattened in an intense sneer. Lip is squared-off in shape and may show upper teeth. Horizontal crease appears above lip. Lower lip pushed upward slightly.

SIGNATURE WRINKLES

1. Vertical lines between brows
2. Crow's feet, lower lid crease
3. Star-wrinkles from inner eye corner
4. Nasolabial fold (deepest alongside nose, where it curves in a hook)
5. Mentalis bulge

SIMILAR TO

No other expression is similar.

**DISGUST****EYEBROWS**

Relaxed.

EYE

Relaxed. May be slightly narrowed.

MOUTH

Upper lip raised and flattened in a sneer—lip is squared-off in shape. Slight sneer often asymmetrical, with one half of upper lip active, other half relaxed. Lower lip neutral.

SIGNATURE WRINKLE

1. Nasolabial fold (deepest alongside nose)

SIMILAR TO

No other expression is similar.

DISGUST



DISGAIN

EYEBROWS

Relaxed.

EYE

Relaxed. Often partly closed or looking down.

MOUTH

Upper lip raised and flattened in a sneer—lip is squared-off in shape. Slight sneer often asymmetrical, with one half of upper lip active, other half relaxed. Lower lip neutral.

SIGNATURE WRINKLE

1. Nasolabial fold (deepest alongside nose)

SIMILAR TO

No other expression is similar.

SURPRISE



SURPRISE

EYEBROWS

Often raised straight up as high as possible; may also be relaxed.

EYE

Opened as wide as possible, with lower lid relaxed.

MOUTH

Dropped open, but without any muscle tension. Oval in shape.

SIGNATURE WRINKLE

1. Horizontal across-the-brow folds

SIMILAR TO

FEAR: Mouth in fear is opened, but not relaxed. Contraction of risorius/platysma stretches mouth sideways, giving it squarish shape. Equally important, contraction of corrugator modifies eyebrow lift in fear, kinking eyebrows and creating between-the-eyebrow wrinkles.

DROWSINESS: Eyes are narrowed, not widened.

SINGING: Eyes are not widened, eyebrows are not lifted.

BROW LIFT: Eyes aren't widened to the extreme they are in surprise, and mouth isn't dropped open.

Expressions of Physical States

This book is primarily concerned with the expression of emotion on the face. Obviously, there is an enormous range of facial expressions that are not directly related to emotion. For artists, perhaps the most important of these are the expressions of physical states like pain, extreme effort, and sleepiness. Several of these are illustrated and discussed below. Also included are a few of the most common conversational expressions, which we all use as a sort of mime act to accompany our speech. There are three things all these expressions share with the expressions of emotion: (1) the eyes exercise decisive control over the overall effect; (2) full-face expressions are less ambiguous than expressions that involve only the mouth or only the eyes; (3) they are universal, and many are universally recognized.



PAIN 1

EYEBROWS

Entire brow lowered, especially inner corner, which is angled sharply downward. Roll of skin piles up above eyebrows. (Action of corrugator.)

EYE

Reduced to single line by compression of orbicularis oculi. Stronger action makes straighter line.

MOUTH

Opened in clenched-teeth grimace, with lips stretched up and sideways to the limit. (Action of risorius/platysma and levator labii superioris.)

SIGNATURE WRINKLES

1. Crow's feet, lower lid fold
2. Star-wrinkles from inner eye
3. Vertical lines between brows
4. Joined crease from nose to chin

COMMENTS

Extreme pain needs physical outlet. Face sort of spasms; eye muscles reflexively clench in full contraction, creating deep creases out from both inner and outer corners, like stress pattern. Mouth is usually stretched open, teeth ground together. Platysma cords arise in neck.

SIMILAR TO

CRYING: Usually less extreme, teeth not clenched.
LAUGHING: No wrinkles 2 or 3; mouth stretched up and back, not out.
EXERTION: Eyes may be open, or less tightly shut.



PAIN 2

EYEBROWS

Entire brow lowered, especially inner corner, which is angled sharply downward. Roll of skin piles up above eyebrows. (Action of corrugator.)

EYE

Reduced to single line by compression of orbicularis oculi. The stronger the action, the straighter the line.

MOUTH

Opened in a shout. Upper lip stretched high above teeth; lower lip pulled down below teeth and tightened. Entire mouth widened. (Action of risorius/platysma and levator labii superioris.)

SIGNATURE WRINKLES

1. Crow's feet, lower lid fold
2. Star-wrinkles from inner eye
3. Vertical lines between brows
4. Joined nose to chin crease

COMMENTS

Sudden, unexpected pain may be expressed in a shout. Otherwise the entire face is clenched. The greater the eye compression, the greater the appearance of pain.

SIMILAR TO

CRYING: Mouth shape not as open, more side stretch.
LAUGHING: No wrinkles 2 or 3; less smear in upper lip, less sideways stretch in lower lip.
EXERTION: Eyes may be open, clenching less extreme.



EXERTION 1

EYEBROWS

Inner corner pulled downward and toward middle. With less intense exertion, brow may be relaxed or even raised. (Action of corrugator.)

EYE

Clenched, but not to the maximum; lash line curved, not straight. In less intense actions eye is open, but squinting. (Action of orbicularis oculi.)

MOUTH

Mouth takes brunt of action. Teeth are tightly clenched, lips are stretched to maximum. Upper lip lifted. (Action of risorius/platysma and levator labii superioris.)

SIGNATURE WRINKLES

1. Vertical lines between brows
2. Lower lid crease
3. Deep nasolabial fold joins wrinkle
4. Bracket folds beside mouth

COMMENTS

There is a large area of overlap between the expressions of pain and physical effort, because effort can cause distress. The mouth is stretched in a grimace quite similar to that of pain. But the eyes almost never clench as tightly and often will remain open, somewhat narrowed.

SIMILAR TO

PAIN: Can be identical; in extreme pain eye squeeze is greater.
ANGER: Much stronger sneer in upper lip; glaring eye; shout.
LAUGHING: Teeth parted, mouth up/back, cheeks full.



EXERTION 2

EYEBROWS

Entire brow lowered, especially inner corner, which is angled sharply downward. (Action of corrugator.)

EYE

Clenched, but not to the maximum; lash line still curved, upper lid line still visible (disappears with more intense contraction). (Action of orbicularis oculi.)

MOUTH

Squeezed tight by the three-muscle press. Lip margins disappear, LBL straight, puffiness around lips. (Joint action of orbicularis oris, triangularis, and mentalis.)

SIGNATURE WRINKLES

1. Vertical lines between brows.
2. Crow's feet, lower lid crease.
3. Hook-shaped fold alongside mouth.
4. Barbell bulge under mouth.
5. Mentalis bulge, shield-shaped with rough skin on chin.

COMMENTS

Lip pressing and grimacing are equally common responses to physical effort. The three-muscle press squeezes the lips down to a narrow line and creates bulging around mouth.

SIMILAR TO

PAIN: Can be identical; in extreme pain eye squeeze is greater.
SUPPRESSED LAUGH, ANGER, AND CRY: All involve three-muscle press, but all have open eyes—squinting, glaring, or sad.



DROWSINESS 1

EYEBROWS

Raised straight up in effort to keep lids lifted. (Action of frontalis.)

EYE

Closed past normal alert position; iris at least 50 percent covered by upper lid with part of pupil blocked.

MOUTH

Relaxed.

SIGNATURE WRINKLES

1. Horizontal across-the-brow folds
2. Bag under the eye
3. Farrow of inner orbit

COMMENTS

With drowsiness, the levator palpebrae relaxes, and upper eyelid drops. We often attempt to keep the eye open by raising our forehead, which indirectly drags the eyelid upward. Usually, the lift is not enough to pull upper eyelid to fully awake position, but only to keep it part-way raised with pupil still blocked. Expression gives the impression of being momentary state before individual succumbs to sleep. Deep fatigue also causes general relaxing of muscle tension, leading to sagging of skin, deepening of bags and folds.

SIMILAR TO

SURPRISE: Eyes open much wider, mouth drops open.
FEAR: Eyes open extra-wide, brows with kink, mouth open.



DROWSINESS 2

EYEBROWS

Relaxed.

EYE

Closed past normal alert position, so that iris is at least 50 percent covered by upper lid. Pupil partly blocked.

MOUTH

Relaxed.

SIGNATURE WRINKLES

1. Bags under the eye
2. Farrow of orbit may be clearer

COMMENTS

Drowsiness is marked by a period of watering consciousness, when the eyelids droop and vision becomes blurred. The eyes may briefly close and open again in quick succession as sleepiness comes and goes. Any position of the upper lid lower than halfway down the iris will make the eye appear drowsy; position illustrated here represents someone just barely awake.

SIMILAR TO

No other expression is similar.



YAWNING 1

EYEBROWS

Pulled together and lifted upward, particularly at the inner end, which may bend upward in a kink. (Action of corrugator and middle fibers of frontalis.)

EYE

Partly shut in a squint; upper lid exposed by lifting of brow. (Action of orbicularis oculi.)

MOUTH

Jaw dropped as far as possible, with mouth opening maintaining an oval, relaxed shape. Tips of upper and lower teeth may show. (Action of levator labii superioris.)

SIGNATURE WRINKLES

1. Horizontal middle-of-the-brow folds
2. Dimple above eyebrow
3. Vertical folds between the brows
4. Crow's feet, lower lid crease
5. Joined crease from nose to chin

COMMENTS

General clenching of facial muscles. Contraction of circular eye muscle helps lift upper lip, as does mild contraction of sneering group. Also the mouth opens as wide as possible, stretching the entire lower face. There are many variations.

SIMILAR TO

SINGING: Combination of squinting eyes and raised brow would never appear in singing.

SHOUTING: Combination of squinting eyes and raised brow would never appear in shouting.



YAWNING 2

EYEBROWS

Entire brow lowered, especially inner corner, which is angled sharply downward. (Action of corrugator.)

EYE

Partly shut in a squint, as well as by downward pressure of the inner brow. (Action of orbicularis oculi.)

MOUTH

Jaw dropped as far as possible, with mouth-opening maintaining an oval, relaxed shape. Tips of upper and lower teeth may show. (Action of levator labii superioris.)

SIGNATURE WRINKLES

1. Vertical lines between brows
2. Crow's feet, lower lid crease
3. Star-wrinkles from inner eye corner
4. Joined crease from nose to chin

COMMENTS

Brows as often lowered as raised in yawn. Upper face is in motion, but direction of motion seems quite variable. Squint is important; it's related to the squint of actions where air is quickly expelled from mouth.

SIMILAR TO

SINGING: Can be identical. Singing usually looks less distressed as corrugator/squint combination this intense rarely occurs in singing.

SHOUTING: This is quite similar to shouting, but shouting eyes are usually much wider, without wrinkles 2 or 3. Shouting mouth usually more square, less open.



SINGING 1

EYEBROWS

Relaxed.

EYE

Relaxed.

MOUTH

Opened, with lower lip slightly turned out. (Action of depressor labii inferioris.)

SIGNATURE WRINKLES

None.

COMMENTS

Only two of the many possible mouth positions are illustrated. In general, singing involves only the lower half of the face. The lips may be tightened along their inner edges, turned outward, or stretched wide, or all three at once. Typically, only the tips of the teeth are exposed. Singing 1 illustrates the singing of the sound "ah."

SIMILAR TO

SURPRISE: Eyes in surprise are extra-wide, often with raised brow.



SINGING 2

EYEBROWS

Relaxed.

EYE

Relaxed.

MOUTH

Opened, with corners pulled inward, lips turned outward. (Action of incisivi branch of orbicularis oris and depressor labii inferioris.)

SIGNATURE WRINKLES

None.

COMMENTS

Many vowel sounds, sung and spoken, involve the action of that branch of the lip muscle that purses the lips, the incisivi. Singing 2 illustrates the singing of the sound "veee," with the lip corners pulled inward toward each other, and the lips slightly turned out. In louder singing, squinting and frowning may appear in upper face.

SIMILAR TO

No other expression in this book is similar.



SHOUTING

EYEBROWS

Pulled slightly downward and inward, mostly at inner end. (Action of corrugator.)

EYE

Narrowed slightly by squint—both from above and below. (Action of orbicularis oculi.)

MOUTH

Opened, with raising of the upper lip and sideways widening of the lower. (Action of risorius/platysma and levator labii superioris.)

SIGNATURE WRINKLES

1. Vertical lines between the brows
2. Crow's feet, lower lid crease
3. Joined crease from nose to chin

COMMENTS

Shouting is usually accompanied by squinting, and frequently by a squaring off of the lower lip and raising of the upper. The louder the shout, the wider the mouth, and the more squinting the eye. Lips may also be tightened, both above and below, by edge fibers of orbicularis oris. Loud singing and shouting can be identical in appearance.

SIMILAR TO

SINGING: Identical to loud singing in appearance.
YAWNING: Eyes are usually much narrower in the yawn, often with raising of the brow. Mouth in yawn is much wider and not as tensed.



PASSION/ ASLEEP

EYEBROWS

Relaxed.

EYE

Closed and relaxed.

MOUTH

Slightly open and relaxed.

SIGNATURE WRINKLES

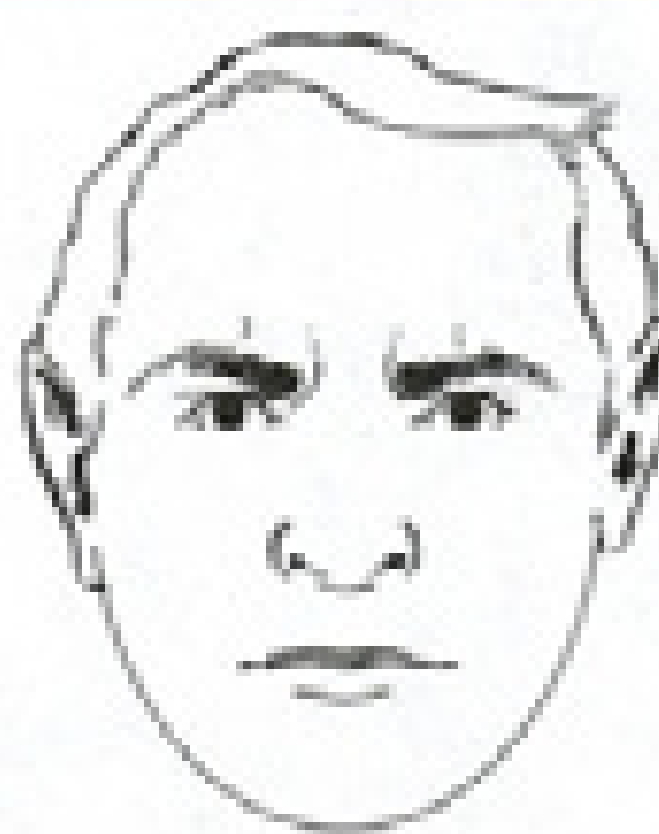
None.

COMMENTS

The combination of slightly opened mouth and closed, relaxed eyes is subject to many possible interpretations. One possibility is the face of sleep, another a kind of stupor. One of the more common ways we read this face is as the face of sexual passion.

SIMILAR TO

SINGING: We expect most singing to be done with open eyes.



INTENSITY/ ATTENTION

EYEBROWS

Inner corner pulled downward and toward the center of face. Lower edge of eyebrow falls below level of upper lid. (Action of corrugator.)

EYE

Opened extra-wide, though pressure of descended brow prevents white from showing above the iris. Outer eyelid angle greater than 45 degrees. (Action of levator palpebrae.)

MOUTH

Relaxed.

SIGNATURE WRINKLES

1. Vertical lines between the brows
2. Dimple above middle of eyebrow
3. Horizontal above-the-lid fold

COMMENTS

When not seen as sternness/anger, with which it is easily confused, the combination of lowered brows and widened eyes gives the face the appearance of intense concentration and interest. This is the expression frequently worn by artists in their self-portraits.

SIMILAR TO

STERNNESS/ANGER: When sternness/anger involves tightening or pouting of the lips, there is no possibility for confusion. But sternness/anger may involve just the eyes; in such a case the expression can be identical to intensity/attention.



BROWS DOWN/ PERPLEXED

EYEBROWS

Inner corner pulled downward and toward the center of face. Lower edge of eyebrow falls at or just below level of upper lid. (Action of corrugator.)

EYE

In normal alert position, but slightly narrowed by downward pressure of brow.

MOUTH

Relaxed.

SIGNATURE WRINKLES

1. Vertical lines between the eyebrows
2. Dimple above middle of eyebrow

COMMENTS

Though it may be confused with sternness/anger, the simple act of lowering the brows has several other more common interpretations. We tend to see a slightly frowning face as puzzled, thoughtful, or frustrated; in social situations we recognize the brief frown as a mere conversational gesture, like a hand movement.

SIMILAR TO

STERNNESS/ANGER: We tend not to see a face as angry unless the eyes are opened extra-wide under the lowered brows. The relaxed mouth also makes anger less likely as a perception.



BROWS UP

EYEBROWS

Raised straight upward with rows of chevron-shaped, horizontal folds above. (Action of frontalis.)

EYE

Relaxed. Action of brow lift may raise upper lid slightly and expose surface of upper lid.

MOUTH

Relaxed.

SIGNATURE WRINKLE

1. Horizontal, across-the-forehead folds

COMMENTS

The brow lift is one of the most common of all conversational expressions. We use it to signal that something surprises us, to emphasize a point, to show that we're interested, or with no particular reference but simply out of conversational habit. It can be the nonverbal equivalent of "you don't say!" or "I doubt that." It can also be the nonverbal equivalent of "hello!"; people around the globe raise their eyebrows as a way of greeting an acquaintance.

SIMILAR TO

SURPRISE: In surprise the mouth is always dropped open, and the eyes are always extra-wide.



SHOCK

EYEBROWS

May be slightly raised and pulled together, particularly in the center, with an upward kink at the inner end. (Action of middle fibers of frontalis and corrugator.)

EYE

Extra-wide and out of convergence (rises asymmetrical) with a staring quality. (Action of levator palpebrae.)

MOUTH

Relaxed.

SIGNATURE WRINKLES

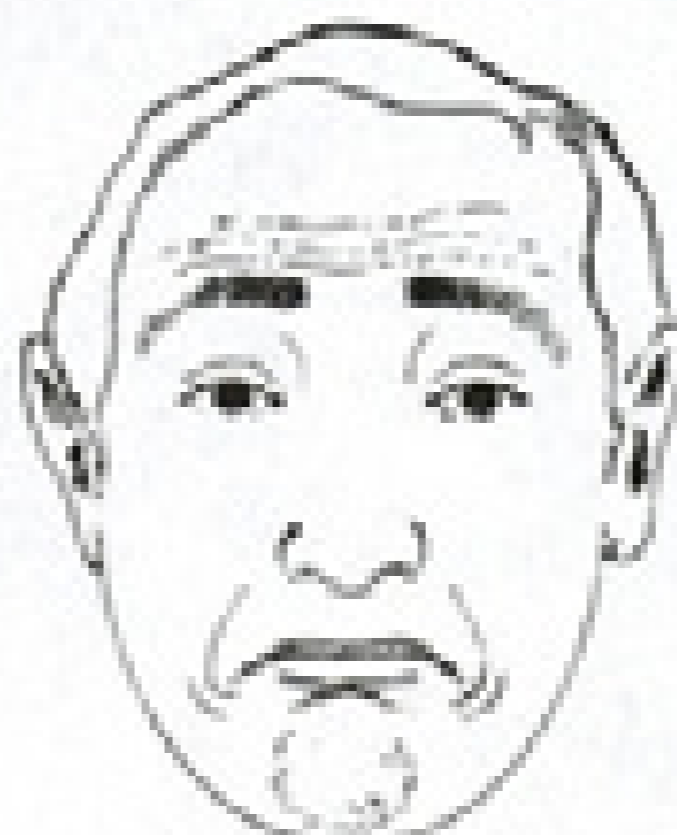
1. Vertical lines between the eyebrows
2. Middle-of-the-forehead horizontal folds

COMMENTS

Shock is closely related to fear, which it may follow. As a state of extreme distress, and detachment from normal consciousness, shock may be marked by distress movement in the eyebrows, as well as widened, askew eyes, which, ironically, see nothing at all.

SIMILAR TO

FEAR: Fear generally involves a stronger lifting and kinking of the eyebrows, as well as an opening and/or stretching of the mouth. In fear the eyes do not move out of convergence; we are too intent on our surroundings to allow ourselves to be detached.



FACIAL SHRUG

EYEBROWS

Raised straight up, as in surprise. (Action of frontalis.)

EYE

May be opened slightly wider by raising of brow; upper lid may be more exposed.

MOUTH

Strong pout, with corners pulled down. Lower lip pushed upward with steep shelf underneath; upper lip thinned and stretched. (Joint action of triangularis and mentalis.)

SIGNATURE WRINKLES

1. Horizontal, across-the-brow folds
2. Deep undercut beneath lower lip
3. Hook-shaped folds alongside mouth corners
4. Mentalis bulge, shield-shaped with rough skin, on chin

COMMENTS

The facial shrug is the facial equivalent of shrugging the shoulders—a gesture of resignation. It appears like an exaggerated sad pout, with the lower lip pushed outward, the LHL radically bent downward, and the skin on the chin roughened. The brow raise is optional; the movement in the mouth is the key. In conversation a guttural exclamation often accompanies the facial shrug.

SIMILAR TO

SADNESS: Pout in sadness is more subtle and always is accompanied by distress movements in the eyebrows and eyes.