MUG SHOTS

A Police Artist's Guide to Remembering Faces

Douglas P. Hinkle

MUG SHOTS

A Police Artist's Guide to Remembering Faces

Douglas P. Hinkle

PALADIN PRESS
BOULDER, COLORADO

Mug Shots: A Police Artist's Guide to Remembering Faces
by Douglas P. Hinkle

ISBN 0-87364-572-3
Printed in the United States of America

Published by Paladin Press, a division of
Paladin Enterprises, Inc., P.O. Box 1307,
Boulder, Colorado 80306, USA.
(303) 443-7250

Direct inquires and/or orders to the above address.

Visit our Web site at www.paladin-press.com

CONTENTS

To all the men and women who are watchful so that the nation can sleep in peace.

PREFACE

This book is not, nor does it pretend to be, an authoritative statement in any technical or scientific field. I am not a physical or forensic anthropologist and have no specialized knowledge of human anatomy beyond what is normally encountered in standard art courses. The reader should bear in mind that the forensic anthropologist is chiefly concerned with the bones of people who have died from unnatural causes. He preserves and studies these bones under strictly controlled conditions, in specially equipped laboratories, and strives to arrive at conclusions that are as scientifically sound and free of error as the condition of the bones permits.

The police or forensic artist, in contrast, has no such luxury. That expert works with images of living people and, almost always, the only evidence is a verbal description given by an excited witness or a distraught victim.

In some instances I have found it appropriate to consult works on physical and forensic anthropology and on

medical (as opposed to artistic) anatomy. Those works are listed in the bibliography. I claim no expertise in those fields, however, and hold no scientific degrees.

The reproduction of any person's facial image in this volume is intended for instructional purposes only. It does not and should not be construed to constitute an accusation of guilt beyond that which has already been determined by a court of law or by a grand jury as a conviction or indictment. The reader should remember that "wanted for questioning in connection with . . ." means exactly that and nothing more.

I would like to acknowledge my considerable debt and express gratitude to the many people who have helped in various ways over the years to put this volume together—cops and robbers, friends and neighbors, librarians and secretaries, rogues and rascals, and especially the many witnesses and victims of crime who have had the patience to endure the painstaking, time-consuming process of putting together a police sketch. Among those who deserve special mention are Lt. Jerry Elgin, Officer Jim Mann, and Capt. Clyde Beasley of the Athens, Ohio, Police Department; Theodore S. Jones, Director of Security at Ohio University; Capt. Darryl Parker and Sheriff Damon Davis of the Essex County (Virginia) Sheriff's Office; Det. Comdr. Courtney Craft of the Albemarle County (Virginia) Police Department; Linda Taylor of the Rappahannock Community College Library; Bess Haile of the Essex County Library; Joyce Waters of the Office of Congressional and Public Affairs, FBI, Washington, D.C.; and Mildred O'Linn, Law Enforcement Television Network, Carrollton, Texas, for permission to use certain illustrations.

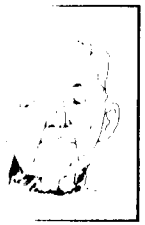
My appreciation is also extended to all the people at Paladin Press who turned this manuscript into a book. Special thanks go to Jon Ford, editorial director, Donna DuVall, project editor, and Amy Craddock, art director, for their highly professional and enthusiastic contributions to this book.

Most particularly, I wish to express what is really beyond words: an appropriate gratitude to my wife, Rose-Marie, for her patience, endurance, and love in the many secretarial and typing tasks required to bring this text to the editor's desk.

D. P. H.
Howertons, Virginia

CHAPTER 1

Impediments to Remembering Faces



Everyone has to remember faces in order to succeed, or even to survive. For some, such as a recluse, the number is small. For others, such as the politician or professional diplomat, the number is quite large. Jim Farley, Postmaster General of the United States under President Franklin Roosevelt, is said to have known fifty thousand people by sight. Among those who need to keep a mental file of many faces are teachers, merchants, bankers, personnel managers, salesmen, and, above all, security specialists and the police.

What overwhelms most of us is the fact that there are three billion faces on Earth today, and every one of them is different from all the others! Yet they tend to assume a sameness in appearance, as in paintings of crowds whose faces are only suggested by quick brush strokes. As a result, unless a face is extremely unusual in some respect—very beautiful, or grotesque, misshapen, or hideously scarred—we tend to describe it as "average."

This "average" face is the bane of the investigator's existence. The following dialogue is taken from the author's notes of an interview with a crime victim.

Author: Tell me what he looked like.

Witness: He was, well, you know, like average.

Author: Do you remember the shape of his head? Was it square? A triangle? An oblong?

Witness: It was, well, sort of average.

Author: What about some of the features? Do you remember his eyes?

Witness: They were, well, like everyone's eyes, I guess.

Author: Were they light or dark?

Witness: I didn't notice.

Author: Were they close together? Far apart?

Witness: Well, you know, like sort of average.

Author: You didn't see anything about his face that would make it different?

Witness: No, it was an average face.

As it happens, the offender was caught—no thanks to the witness. In fact, he had a very unusual face that included a broken nose, a couple of prominent scars, high puffy cheeks, and several areas of imbalance. Examples like this are not uncommon. Most people simply do not see, for a variety of reasons we will examine.

Ironically, most people think of themselves as observant for two reasons. The first is that keen observation is often mistaken for keen intelligence. The second is that most people with acceptable eyesight spend most of their waking hours seeing something and conclude that because they do it a lot they must necessarily do it well.

Therefore, to tell somebody he or she is not observant is to take a chance on losing that person's friendship. It is like saying, "You don't see what is right in front of you. You are therefore brainless and incompetent." Yet, in most instances, that is not the case. Observation, as with any other form of mental or physical activity, is a matter of habit and practice. Our habits are most often conditioned by our personal background, and practice is a matter of discipline.

Everyone dreams of having a memory for faces—of recognizing someone after years of separation, heading off a terrorist attack, or winning a match-up contest on a television quiz show. This volume will help you develop such a memory. However, it can only explain what you need to look for and show you what things look like. It cannot do your practicing for you. In the last chapters, you will be given a series of exercises that start with simple things and progress to the more complex. Doing them conscientiously will improve your memory for faces dramatically.

WHY WE DON'T SEE

If you have read this far, you have undoubtedly recognized a need to improve your memory of faces. Poor observation habits are no doubt partially responsible for your less-than-perfect memory, but there are physiological and psychological causes as well. Let's examine some of the primary reasons we don't always see.

Technology

Much of what people used to notice because they needed to can now be obtained by switching on the television set. Weather forecasts are a good example. Our

grandparents used to observe nature for signs of rain: to watch the flights of birds, patterns of clouds, soot in the chimney, atmospheric conditions, rings around the moon, and colors of sunrise and sunset; to listen to the sounds of crickets and train whistles; to feel the direction of the wind. We don't need these signs to forecast the weather anymore, so we are out of the habit of observing them. Another example of how technology has eroded our observation skills is sophisticated electronic gear to tell you where the fish are, in what numbers, and at what depth. You no longer need to notice those special signs that helped earlier generations to "read" the surface of a stream or lake. Your observation habits suffer in general, and you fail to notice other things unrelated to fishing.

Modern Education Techniques

The exact opposite of the scientific method of study, which involves detailed observation, is the so-called holistic approach embraced in recent decades by many professional educators. This latter method advocates a more generalized approach—an overview that dismisses the importance of detail in favor of the "broad picture." Half a century ago, children were urged to observe how words were spelled; today they are frequently encouraged to "see the whole page at a glance, and we'll discuss it together." This approach does precious little for observation skills or memory. If you are not trained in school to notice how words and phrases are put together, you probably won't form the habit of noticing how faces are put together.

Personal Relationships

There was a time when it was considered bad manners not to look at the person to whom you were talking.

Failure to do so almost certainly resulted in your being called to account. Most of us are probably more comfortable without the petty restrictions of an outdated code of behavior, but this relaxation of etiquette involves a tradeoff. Think back over your recent routine contacts. How many people you talked with—bank teller, desk clerk, police officer, security guard, shoe clerk, newspaper carrier, nurse—actually looked at you? Frank Abagnale—infamous international thief, imposter, forger, and author of the best-selling autobiography, *Catch Me If You Can*—once told me he was able to escape capture for such a long time because few people, including bank tellers, looked at his face.

Fear and Stress

To remember something, you have to perceive it first, whether it is a picture, a song, a military maneuver, a story, or an abstract idea. To remember a human face, you first have to see it. This sounds obvious enough. Yet it is not all that simple because at all times we are under stress to one degree or another, and stress is the archenemy of keen observation. In fact, if the stress is great enough, you can look straight at somebody's face and not see it at all. Let's see how this works.

The greatest single factor in the development of stress is fear. For most people who have ever been threatened with harm or death by anyone wielding a weapon—gun, knife, ball bat, bomb, vial of acid, or broken bottle—it is a terrifying experience. Reactions may vary from anger to shame to a feeling of helplessness, depending on a victim's personality. He or she may feel frustrated or disgusted, cowardly or unclean. But above all, some parts of us do not respond as they would normally. For most of us, one such part is the incredibly

complicated computer consisting of our eyes, which gather information, and our brain, which stores it. Most witnesses do not see a criminal's face clearly because their attention is riveted on the weapon and the danger it presents to them or others.

The Fight-or-Flight Syndrome

Trick number one, then, is to understand why our brain does not store the facial image we will want to remember later. What happens inside our body is exactly what happened to our ancestors a hundred thousand years ago when a saber-toothed tiger poked his head inside their cave. Three basic changes take place.

First, the blood leaves the areas where it is not immediately needed and finds its way to the muscles where it is needed, primarily the arms and hands (which are used for fighting) and the legs and feet (which are used for running away). Then, the adrenal glands, which are situated just above the kidneys, pump large quantities of adrenalin into the blood stream. Anyone who has ever had a shot of adrenalin knows what this does.

Several immediate results may catch you off guard. If too much blood leaves your brain, taking its oxygen with it, you will feel dizzy. You may even faint, which is not a cowardly reaction at all but a perfectly sound protective device that sometimes permitted our early ancestors to play possum until the danger was past. You may experience peristalsis of the anal sphincter, which may cause you to lose control of your bowels. In like manner, this is not an unheroic reaction but a prehistoric device for quickening foot speed. (Everyone knows that constipation and physical sluggishness go together and that foresighted athletes empty their bowels before a contest.) Because of the adrenalin you will

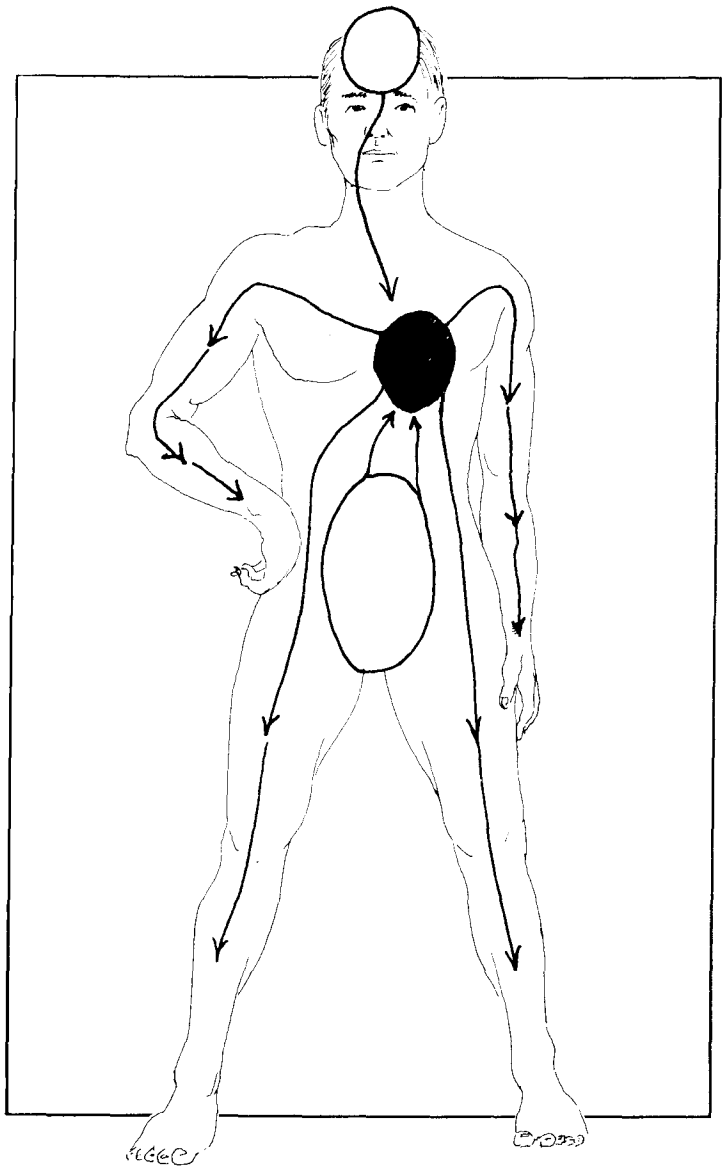


***Illustration* 1. Fight-or-flight syndrome causes the blood to rush to the muscles, primarily in the arms and legs for fighting or fleeing. This can cause a stomach flip or light-headed feeling in some people.**

also experience a rush of strength that will amaze you (Illustration 1).

But most important for our consideration here, sudden fear causes you to develop a form of tunnel vision. That is, for some reason not altogether understood, when you are threatened with a weapon, your peripheral vision shrinks until you see the weapon in great detail but everything around it becomes blurred like the image in out-of-focus binoculars.

Try an experiment. Strange as it may seem at first, people do not see color in peripheral vision. Some time when traffic is light and you are stopped at an intersection, try to tell when the light turns green without looking directly at it. When your line of vision moves just a few degrees to the left or right, you will find that all colors become neutral.

When you are under stress, the angle between your direct line of vision and the outside limits of what you can actually perceive is sharply reduced. That is why crime victims often cannot describe an offender's face very well or even, in some cases, remember the color of the criminal's hair or clothing. But they can often give a precise description of the weapon.

I once interviewed a nineteen-year-old bank teller who described the holdup weapon as a large-caliber revolver with a rust spot on the barrel. She even described the front and rear sights. But when asked, she could not state the difference between a revolver and an automatic. She could report very little about the robber's face because, in point of fact, she was not looking at it (Illustration 2).

What we have described here is the classic fight-or-flight syndrome. Your normal choice when faced with sudden danger is between escape or battle. When you can

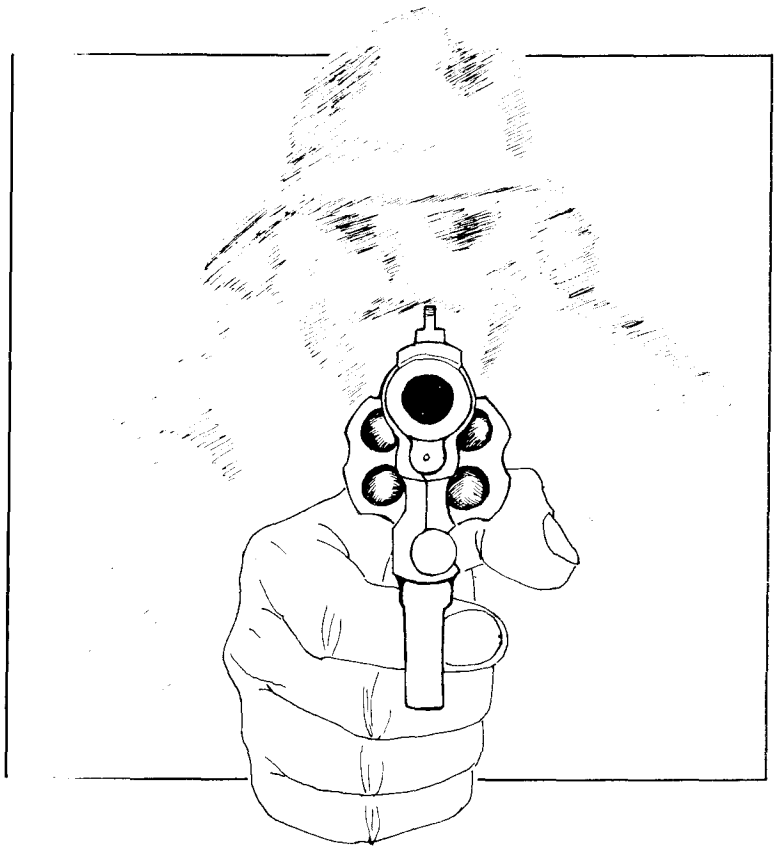


Illustration 2. **The victim often sees the point of threat (weapon) in great detail but sees only a vague, featureless form behind it.**

neither escape nor fight, you have a Catch-22 situation. You are left with a body charged to the explosion point with adrenalin and nothing to do with it.

Visual Habits

Another major roadblock to remembering faces is the training in observation we have received since childhood.

Much of this training revolved around our written language, which, by its very nature, required us to examine one letter of the alphabet at a time, and then observe how they were put together to form simple words: cat, dog, house. This process took a relatively long time and, even though our learning rate as children was accelerated, by the time we mastered the alphabet and began to make out single-syllable words, our visual habits had become point-oriented, not space-oriented. It is worth remarking that among people who do not communicate in written symbols, such as aboriginal tribes or functional illiterates, observation skills are much sharper. They have to be. Put another way, the alphabet—a sort of middleman between the human eye and its surroundings—is a set of virtually limitless, highly stylized symbols that reduces concrete objects to abstract ideas. And because as children we learned to examine these symbols one at a time, often pronouncing them aloud, we formed the habit of not seeing the whole—the whole word, page, or book. (This is not to be confused with the initial process of identifying individual letters by their shapes, which occurs much earlier in the process.)

Then, because our educational system stressed point scrutiny of letters, words, and numbers, our peripheral vision deteriorated. We learned to see only one thing or one word at a time. For this reason, many people read at a speed not much faster than speaking. This is not a sign of inadequate education or low intelligence. Maxwell Perkins, the brilliant editor for Thomas Wolfe, F. Scott Fitzgerald, Anaïs Nin, and other notable writers, was a notoriously slow reader. It is merely an inconvenience that can be overcome. People who overcome it shift from point orientation to space orientation. Readers who wish to increase their reading speed must learn the trick of seeing,

absorbing, and retaining more than one word at a time. Some are eventually able to expand their peripheral vision to take in complete sentences, paragraphs, and even, in rare instances, whole pages at a single glance.

Disorganization

Recent trends in public education put little emphasis on applying logic to priorities. Certain social and political reasons lie behind this, which we will examine in the section below dealing with impediments to memory. As schoolchildren, we were taught to compare certain values, possibly in terms of money or goods, or to compare quantities, distances, time blocks, or other units of measurement. But we were not given many problems requiring immediate choice. In contrast, a police officer or executive-protection specialist might be asked, "If you are faced with two attackers, one with a shotgun and the other with an automatic rifle, which will you try to take out first?" The question demands that the officer establish priorities of relative danger—within a fraction of a second. That is the sort of problem solving we were seldom, if ever, given during those years when our capacity to learn was at its peak. For this reason, when we see somebody commit a crime, we often don't evaluate the relative identification value of a broken nose and a torn shirt properly. (The torn shirt can be thrown away; the nose can't.)

WHY WE DON'T REMEMBER

Much of what we have just said overlaps with what follows for the obvious reason that vision and memory are so intimately related. Among the various factors that tend to distort or obliterate memory are confusion, disorientation, and faulty habits. Let's take them in order.

Confusion

The greatest source of an inaccurate memory of faces, objects, or recent events is the mishmash of apparent similarities between them. How often have we all spoken to someone on the street only to realize, with embarrassment, that we had been fooled by their strong resemblance to someone else? Conversely, how often have we ignored a close acquaintance because his new mustache or her new suntan threw us off? This sort of thing happens because we are not trained to see through the superficialities to the basic bone and muscle structure underneath.

Human beings are divided into types. On the broadest level we have races. Physical anthropology subdivides these into many groups, whose differences are diminishing because of racial mixing. Beyond that, within each race we have groups and subgroups that display some of the same characteristics. Among the Irish, for example, we can expect to find a significant number of broad-chested, button-nosed, red-headed males with prominent chins and a long distance between nose and upper lip. A witness can be excused for being confused by the similarities among the Irish and perhaps for describing one of them as "Irish" instead of saying, "broad-chested, Celtic type with red hair, strong jaw, and long distance from nose to mouth." It takes training, patience, and determination to get to that point.

It is for this reason you hear people say, "I'd never be able to pick him out in a crowd. He has a sort of average face." Defense attorneys place a heavy, cynical dependence on the inability of crime victims to pick an offender out of a police lineup of similar-looking people.

Disorientation

This is akin to the fight-or-flight syndrome that

inhibits observation and, in many instances, either proceeds from it or is a part of it. Disorientation can be caused by sudden fear, shock, astonishment, or even mild surprise. We have all had it happen to us. It often causes a delayed reaction that temporarily desensitizes us, so that we postpone observing what we would normally see if the surprise were not there. All of us have thought of the perfect comeback to an insult too late to deliver it. It is the same with observation. We are so angry with someone for speeding through a school zone that we shout and shake our fists and forget to get the license number until too late.

Faulty Memory Habits

A few pages earlier we noted that contemporary philosophies of education place little emphasis on assigning priorities, especially those involving an immediate choice of relative importance. The reasons for this are sociopolitical in nature and go back several decades in U.S. public education. The professional educationists who control the major trends in U.S. public education have traditionally rejected any sort of merit-comparison as undemocratic or "elitist." This leads to the conclusion that nothing of any class of things is any better or more important than any other member of the same class; it is merely "different." Thus, no pupil is any brighter or dumber than any other pupil, and if his or her grades indicate otherwise, it is the fault of the "system."

Proponents of this thinking, who constitute a larger portion of our teachers than one might imagine, have trained several generations of youngsters to believe it is somehow undemocratic to assign relative values to anything. As a result, many people find it difficult to see why a malformed jaw is more important to a police investiga-

tor than, say, the criminal's eyeglasses or his necktie.

Silly? Of course. But it is nevertheless one of the reasons many adults cannot look at a face and decide what is important to fix in their memories and what is not. Their school training conditioned them to reject judgments based on notions of relative importance. That is why the next chapter is devoted to deciding what is worth remembering and what isn't.

* * * * *

Despite these impediments to seeing and remembering, some people are enormously observant, taking in details most of us miss altogether. These people fall into two categories: those whose very survival depends on a keen awareness of their total surroundings and those whose professions demand a detailed awareness within their specialties.

The first group includes members of aboriginal tribes or those who live by their hunting or fishing skills. People who live by their wits and, to a certain extent, police and security people also fit into this category.

The second group includes all those who have a specialty of any kind. The experienced teacher quickly spots a plagiarized essay, just as a lawyer zeroes in on a leading question or a doctor automatically takes a closer look at a precancerous mole. Police and private security personnel, who have to be specialists as well as generalists, also fall into this group.

But none of these people is especially competent outside his or her own little bailiwick. Even the police officer or private detective is likely to give as poor a description of the details of a face as any frightened bank teller or liquor-store clerk who has just been robbed.

Whatever the causes or whoever is to blame, the fact

remains that most people don't see enough of a face to describe it well. They find the image slips quickly from memory, so police artists like to interview witnesses as soon after a crime as possible.

This guide is designed to provide you with the facts and the method necessary to counterbalance these influences and give you what can be the winning edge in any profession involving human relationships: a precise memory for faces.

CHAPTER 2

What to Look for and How to Prioritize

In chapter 1 we examined some of the main reasons people frequently don't see what they are looking at. We noted also that even when they do remember, they generally don't organize their observation in a helpful way. Many witnesses of perfectly sound mind will, for instance, assign equal value to a missing ear and a frayed shirt collar.

What is worse, many inexperienced investigators—and some experienced ones as well—are not much better at assigning priorities than the rattled witness. Consequently, many police reports contain the sketchiest of descriptions, often limited to race, sex, age, height, build, clothing, and direction of travel. The weapon (especially a firearm) receives a lot of attention for two reasons: first, as we saw earlier, the weapon is the center of the victim's attention; and second, the investigating officer, by nature of his/her training, has a strong professional interest in weapons and is likely to waste time on the insignificant details of a gun that the criminal, if he has

the brains of a rabbit, is going to pitch into the nearest creek while speeding out of town. Let us suppose that a witness to a street holdup provides the police with the following data on the offender:

1. Male, above average height, maybe six feet.
2. Red-and-gray-checked flannel shirt.
3. Faded blue jeans.
4. Shoulder-length hair.
5. Slender build.
6. Spoke with a stutter.
7. Headed due west on Fourth Street.
8. Large red nose.
9. Seemed nervous.
10. Exhibited a Smith & Wesson revolver, large caliber, with a four-inch barrel and full-length shroud. (It needed bluing.)

Every one of these items is significant if you apprehend the robber two minutes and three blocks later. If any significant time elapses, however, the only items of any value are numbers 1, 5, 6, and 8. All the others can be altered or discarded. For example, a few years ago in Columbus, Ohio, police captured a bank robber twenty minutes after the robbery in the act of shaving off his beard.

WHAT CAN AND CAN'T BE CHANGED

Common sense, therefore, suggests to us that we should be concerned with things in descending order of importance:

A. Things that cannot be changed.
B. Things that can be changed only with time, effort, or considerable expense.

C. Things that can be changed easily and cheaply.
D. Things that can be discarded altogether.

To these we add a fifth category, things that can be disguised, which will form an important element in our consideration of terrorist disguises (chapter 8).

What, then, are the things we can consider impossible to change and that will therefore remain the same no matter what is done to fool us? Before answering this question, we must recognize the difference between changing something and disguising it. For example, we can disguise our height by wearing elevator shoes, but we cannot change it. We can disguise our sex but changing it is expensive, bothersome, impractical, and for most of us undesirable. The same is true of our basic features. We can disguise our facial structure, but we cannot change it short of plastic surgery. Now enters common sense: a male bank robber who pulls a $2,000 stickup is not going to turn around and spend a lot more than that on plastic surgery or a sex-change operation. He is going to blow it on some flashy clothes, cheap liquor, and one or more ladies who are happy to help him spend it.

Things That Cannot Be Changed

Let's begin with three things we cannot change that are absolutely basic to our identity: race, sex, and age. Suppose we describe a murder suspect as a black male, age about forty. Look at the people we have eliminated with these three elements:

- All people who are not black.
- All females.
- All young black males.
- All elderly black males.

In other words, we have narrowed our search down to

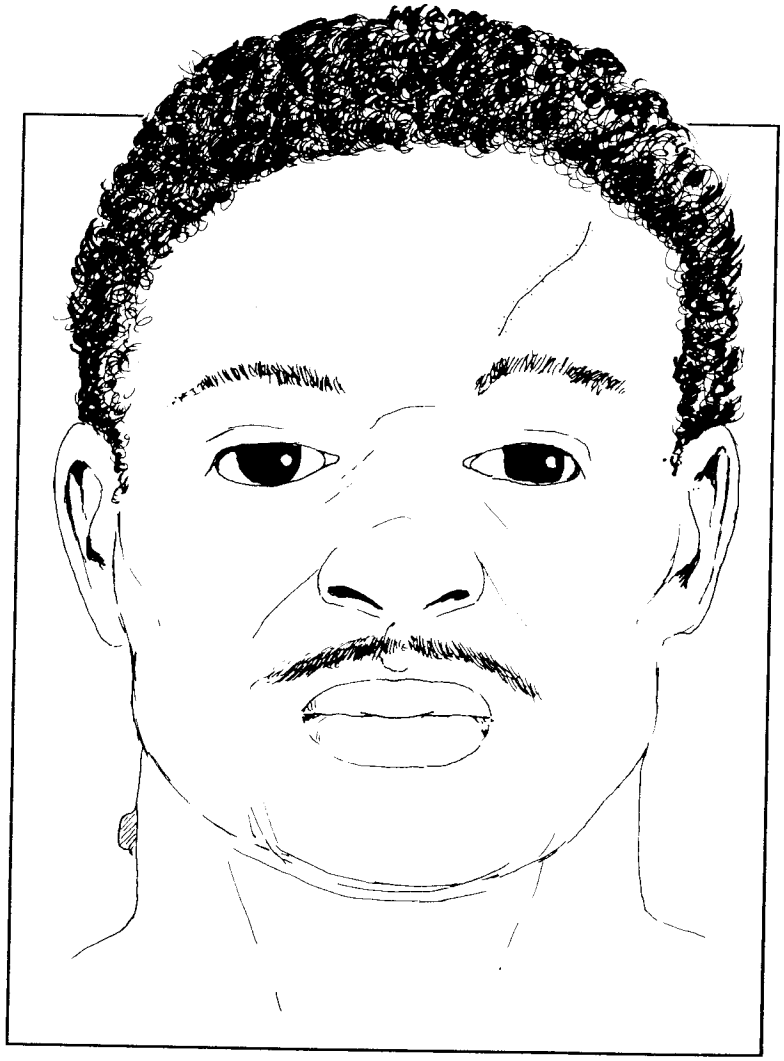


Illustration 3. **Suspect was described as "average," but this drawing shows many distinctive features: thick build, close-set eyes, down-pointing nostrils, thick lips, scar on forehead, and cyst on neck.**

a tiny percentage of the population.

Now let's take it a step further. Our middle-aged black male is five feet ten and has a thick, muscular build. His

face follows the lines of his body: square, solid, and massive. His forehead is high and rounded. His eyes are deep set and fairly close together. His cheeks are high. His nose is flat with flaring nostrils that point downward toward the tip. His mouth is characterized by thick lips, and his chin is short and rounded. His jowls are massive and his neck is as wide as his head. His skin is ebony black. These are things he cannot change, and we have narrowed our search down to a half-dozen men in the whole city (Illustration 3).

At this point, let's suppose that an old scar glistens above his left eye, and a reddish cyst appears on his neck. It now seems mathematically certain, or nearly so, that only one man can match this description. Actually that is not the case, as we will see in chapter 3. But it gives us a broad base from which to operate and certainly provides probable cause to detain for questioning anyone looking like that.

Things That Cannot Be Changed Easily

As we noted, our murder suspect is stocky but not fat. The only way he can change his build appreciably is to gain weight, which takes time. If he were fat, it would take him even longer to lose it. Therefore, until the trail grows cold, he is stuck with the physique he had when he allegedly committed the murder. This is important because it means the shape of his face will remain substantially the same.

He is clean shaven, except for a small mustache. That means if he wishes to cover his face with hair he will have to wait a while since beards do not grow overnight. Unless his facial hair is fairly thick and long, it will not be sufficient to disguise facial contours. The author was once asked by the Federal Bureau of Investigation (FBI) to do a series of drawings of an escaped convict depicting various

styles of facial hair, head hair, and eyeglasses. The exercise demonstrated that for those investigators with some knowledge of facial bone structure, the changes were easy to penetrate.

Perhaps a nose job would throw some investigators off the track, but don't bet on it. Besides, nose jobs cost a lot of money. I know of only one or two cases of criminals getting plastic surgery in recent times, and one was a terrorist funded by people to whom expense was not an object.

Things That Can Be Changed Easily

Beards may take a long time to grow, but it takes only minutes to shave one off. It is a safe bet that any bearded robber is going get rid of his facial hair as soon as possible.

Head hair can be easily changed in three ways: it can be cut, restyled, and/or dyed. But even if it is changed in all three of these ways, the basic bone and muscle structure of the face remains unaltered. The trained observer is not likely to be fooled.

Clothing is obvious. If any time at all passes, an offender is going to change clothes. This does not mean that articles of clothing should not be noted, because they may be kept and worn again at a later date. This is especially true of heavier or more expensive items, such as jackets, coats, cowboy boots and shirts, fancy belts, or leather apparel. A police artist once did a drawing of a fur-collared jacket worn during a holdup that was traced to the bandit through the man to whom he sold it.

Things That Can Be Discarded

Professional robbers commonly use distracters to trick witnesses. A distracter is an item that will draw the attention of the witness away from the facial features of the offender. I was once called to do a sketch of a bank robber

who had worn an orange Band-Aid on one cheek. Every witness was specific about the Band-Aid—size, shape, color—but vague about the face behind it. The robber didn't really need a mask. The tiny bandage was enough. It was found lying on the sidewalk just a few feet away from the bank, where the gunman had thrown it as he raced away.

The same effect can be achieved with eyeglasses, cigars (especially cigars with the band still in place), earrings, or anything else that can be worn on or about the face.

Many witnesses become hopelessly bogged down in detailed descriptions of such distracters, dwelling on minor points that don't affect the criminal's appearance one whit. In the final analysis, they can always be pitched into the nearest Dumpster as the offender sprints down the alley—and often are.

The investigator will also be concerned with clothing that can be discarded and that affects the appearance of the face. Chief among these are toboggan caps (which can be pulled down over the forehead or used to disguise hair styles), scarves (which can be used to cover chins, sagging throats, or bull necks), and high coat collars (which serve to partially block a view of the profile).

What we have said here does not mean that such things should be dismissed. It means only that they should be placed in their proper order in the scheme of priorities. The rule is: start with basic bone and muscle structure. Discardable items come last. These include eyeglasses, bandages, weapons, briefcases, satchels, paper sacks, and most items of clothing.

Things That Can Be Disguised

Many criminals, especially trained terrorists, are becoming highly sophisticated in the art of disguise. They

are known to patronize theatrical supply houses and to apply their products with skill. These include facial and head hair, skin creams, padding, corsets, and all sorts of devices for creating optical illusions. (We will discuss this in greater detail in chapter 8.)

Using these disguises allows terrorists to alter our impressions of age, height, weight, race, and musculature. Most important, however, is their ability to confuse the witness as to sex. This is by no means the exclusive province of the terrorist. A perhaps ridiculous example occurred not long ago in Canton, Ohio, when a bank robber attempted to disguise himself as a woman by putting on a skirt, high heels, and wig and by wearing two large grapefruit inside a D-cup brassiere. He gave himself away, however, by wearing a short-sleeved, low-necked sweater that revealed the massively muscled arms of a blacksmith and the neck of a professional wrestler.

On a more sophisticated level, anyone who has had occasion to visit a bar frequented by transvestites has certainly been fooled by some of the disguises. A female friend of mine who was head of security for a major midwestern hotel remarked of some of the guests at a gay dinner dance, "I'd kill for a figure like some of those guys!"

Knowing what to look for can help you see beyond these disguises, no matter how clever the costume or makeup. The trick lies in recognizing bone structure, which is what will concern us in the next chapter. In summary, you should start looking at people and practice prioritizing what you see according to the following chart in descending order of importance:

- Race.
- Sex.
- Age.
- Basic bone structure of the face.

- Facial scars or irregularities.
- Dental irregularities (if visible).
- Eye color (light or dark).
- Hair color, style, and length.
- Skin color.
- Glasses, bandages, jewelry, etc.

CHAPTER 3

General Structure of the Head

By now you have seen that in order for your observations to have any meaning, they must have a frame of reference. This is especially true of faces. The individual features—nose, mouth, eyes, etc.—are next to meaningless without reference to the shape of the head and the relative distances between these various features. Let's see how this works by reviewing Illustration 3 on page 20.

The murder suspect had a high forehead; deep, close-set eyes; high cheeks; flat nose with down-pointing nostrils; thick lips; and short, rounded chin. He had a thick-set muscular neck, a prominent scar on his forehead, and a large cyst on his neck. As we noted, this would seem enough for a positive identification, but this is not necessarily the case. How come?

Examine Illustration 4. On the left is what you see in Illustration 3, but on the right is the face of a man who exactly matches the description given in the preceding paragraph, but with this difference: the distances between

the features have been altered slightly. That is just enough to throw the identification off.

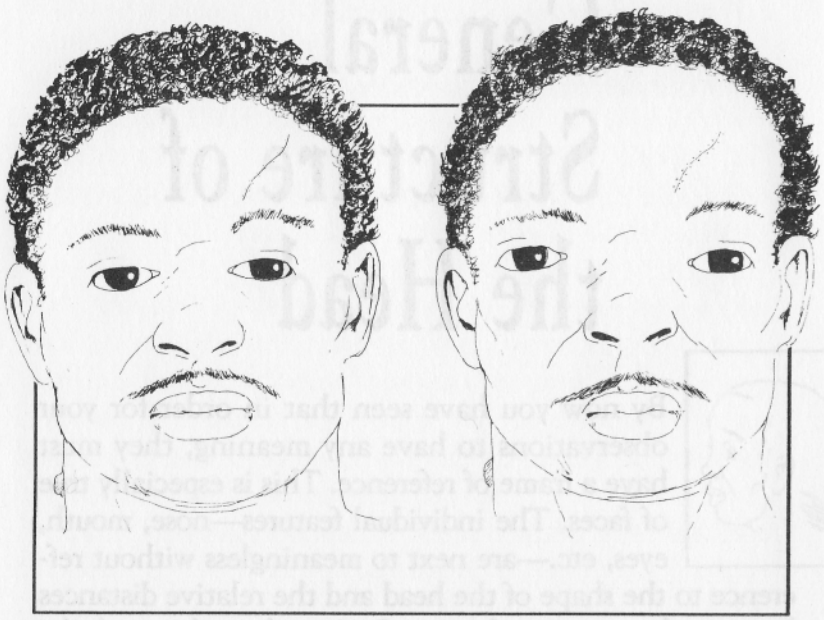


Illustration 4. **The features of these two men are the same, but the distances between the features have changed, destroying any resemblance.**

Head Shapes

Therefore, your first task will be to establish in your own mind the shape of the head you want to remember. The best technique involves likening it to a geometrical figure, such as those in Illustration 5.

Distances between Features

Once you have decided whether the head you are staring at reminds you of a square, triangle, circle, oblong, or

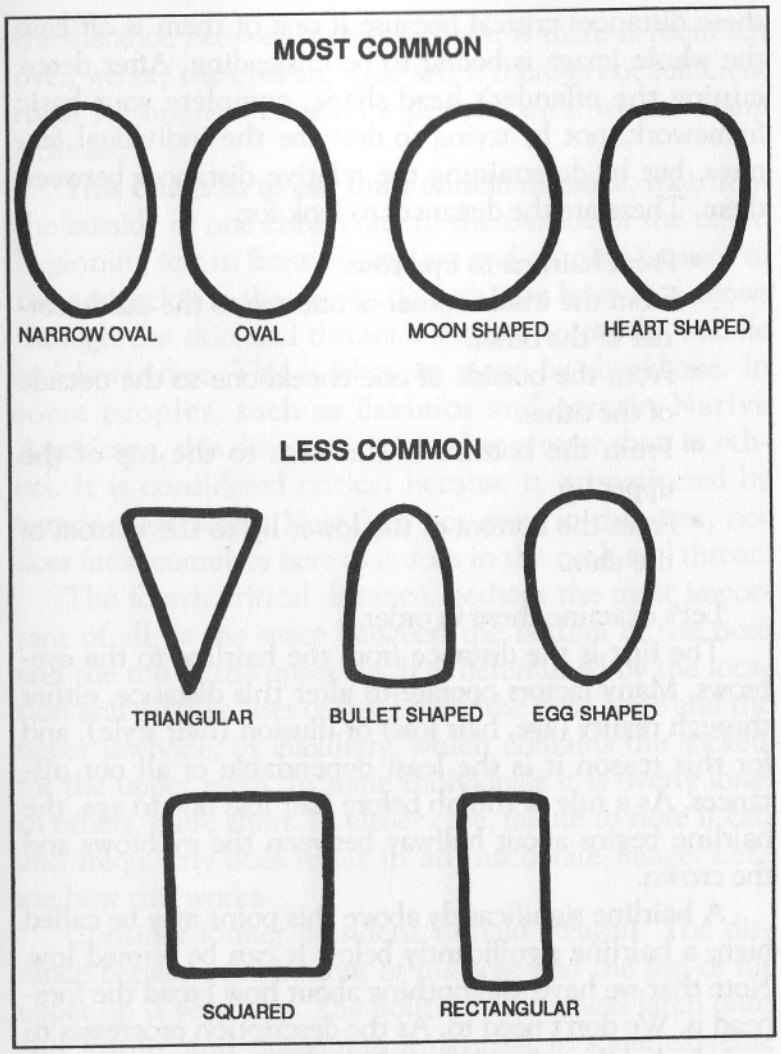


Illustration 5. **The nine most common head shapes**

what have you, your next task is to judge the relative distances between the various features. There are five critical distances on the human face. (Illustration 6.) We call

these distances critical because if one of them is off base the whole image is bound to be misleading. After determining the offender's head shape, complete your basic framework, not by trying to describe the individual features, but by determining the relative distances between them. These are the distances to look for:

- From hairline to eyebrows.
- From the inside corner of one eye to the inside corner of the other.
- From the outside of one cheekbone to the outside of the other.
- From the bottom of the nose to the top of the upper lip.
- From the bottom of the lower lip to the bottom of the chin.

Let's examine these in order.

The first is the distance from the hairline to the eyebrows. Many factors operate to alter this distance, either through reality (age, hair loss) or illusion (hair style), and for this reason it is the least dependable of all our distances. As a rule of thumb before hair loss due to age, the hairline begins about halfway between the eyebrows and the crown.

A hairline significantly above this point may be called high; a hairline significantly below it can be termed low. Note that we have said nothing about how broad the forehead is. We don't need to. As the description progresses to include details such as hair style, widow's peak, and "bachelor's forehead," this distance will take care of itself. It is not as critical as the height of the forehead.

The second critical distance is the one that lies across the bridge of the nose, between the eyes. This is basic to the makeup of a face. The length of one eye is normally

the distance between a person's eyes. If there is room left over, we say the eyes are wide set; if there is not sufficient room for one eye between a person's eyes, we call them close set.

This brings us to our third critical distance, that from the outside of one cheekbone to the outside of the other. Beginning just in front of each ear and running forward to the eye socket is the zygomatic arch, the bone that shows through the skin and throws a shadow across the middle and lower face. This is what we mean by cheekbone. In some peoples, such as Eskimos and certain Native Americans, this distance is somewhat greater than in others. It is considered critical because it is unaffected by exterior distracters. Hair does not grow in this area, nor does fat accumulate here as it does in the neck and throat.

The fourth critical distance, perhaps the most important of all, is the space between the bottom of the nose and the top of the upper lip. It is determined by the location and relative sizes of two bones: the nose bone and the upper jawbone, or maxillary, which contains the sockets for the upper teeth. In some individuals it is overly long; in others, quite short. In either case, failure to note it can and frequently does result in an inaccurate image. Let's see how this works.

Consider former president Ronald Reagan. The distance between the bottom of his nose and the top of his upper lip is very long. The political cartoonists latch onto this feature and exaggerate it, so that in some extreme examples it appears to take up most of his face. This distance, together with a shock of dark hair perched on top of his cranium, tells us without words that we are looking at Ronald Reagan and nobody else.

Now consider somebody with a short distance between nose and upper lip, Walter Mondale, for exam-

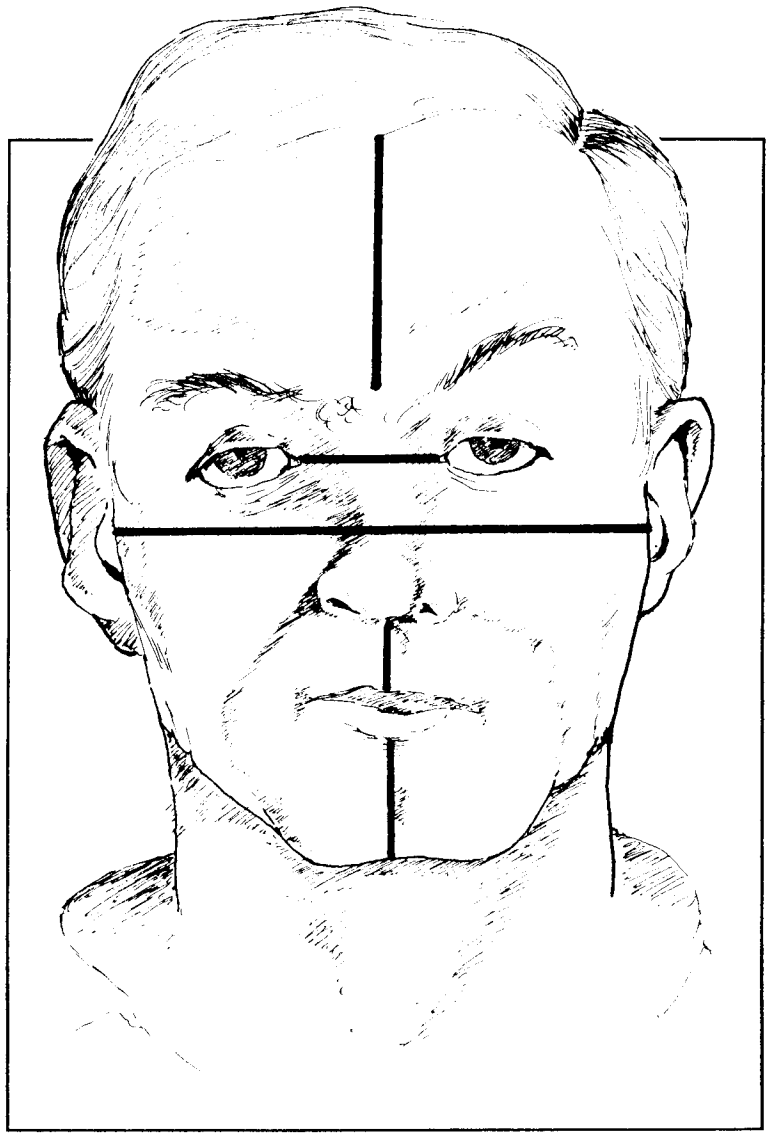


Illustration 6. The five critical distances of a face.

ple. Do the cartoonists lengthen this distance as they do for Ronald Reagan? Just the reverse. By exaggerating Mondale's tendency to shortness in this area, they give him an identity tag—a nutcracker face, in which the tip of the nose meets the point of the chin.

Finally, try to imagine the result if the cartoonists were to reverse the process: Mondale with Reagan's Celtic upper jawbone, and the former president's profile with the short upper jaw of his former rival. This would completely destroy the two likenesses. That is precisely what happens when the viewer fails to note this extremely important distance.

Our fifth critical distance lies between the bottom of the lower lip and the bottom of the chin. Surprisingly, many people confuse the chin (i.e., properly speaking, the protrusion of the lower jawbone at the very front of the face) with the fold of fat directly below it in some obese persons. This latter is what we call a "double" chin and has nothing to do with our critical distances. Still others confuse the terms chin and jaw. The result can be a ridiculous distortion of a human face, unless the detective or police artist takes the trouble to make sure he and the witness agree on the meanings of key words.

Skull Differences between Sexes

The ability to spot someone disguised as a member of the opposite sex is becoming increasingly important, which we will note in greater detail in chapter 8. For the moment, we should just note that a growing number of criminals are resorting to such disguises for a variety of reasons. People involved in investigative or protective services, national defense, or certain industries vulnerable to liability lawsuits must be able to identify people so disguised, but it is not always easy because many transvestites

are extremely clever. Furthermore, for genetic reasons not clearly understood, some people are born with many of the physical characteristics of the opposite sex.

Some races, especially those of East India and certain Native American tribes, do not show any significant differences in the skull structure of the male and female. This is important because most of the skulls used for medical instruction in this country are imported from India. Even doctors and forensic anthropologists find it difficult to distinguish between the sexes of such people based on an examination of the skull alone.

Nevertheless, for our purposes, and with these cautions well in mind, we can note the following easily observable differences between most male skulls and most female skulls in this country. Illustrations 7 and 7A (male

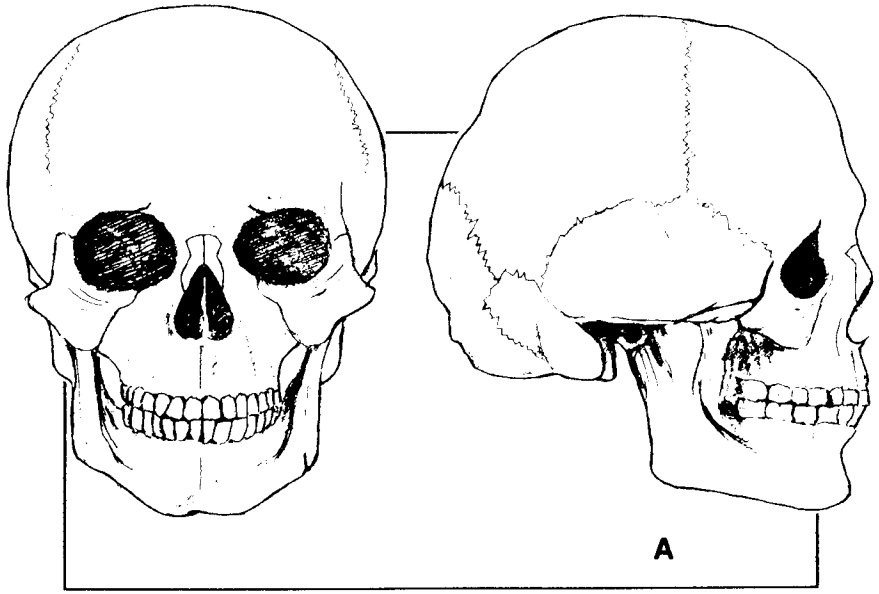


***Illustration* 7, 7A.** Typical male skull, front and side views. Note the strong division of chin, sharp angle of jawbone, and slight depression in the center of forehead.

skull) show the following features:

1. The forehead has two "bosses" or slightly rounded eminences. In angled light you can see a vague shadow between them. You can feel the slight depression by running the tips of your fingers across this area.
2. The brow ridge is clearly visible.
3. The chin has a clear division in the middle, which separates the two halves of the horseshoe-shaped jawbone and produces that square-chin effect in males.
4. The jawbone almost forms a right angle as it descends from the ear and forward toward the chin.

Now examine Illustrations 8 and 8A, which depict the typical female skull. The following contrasts with the male skull should be obvious:

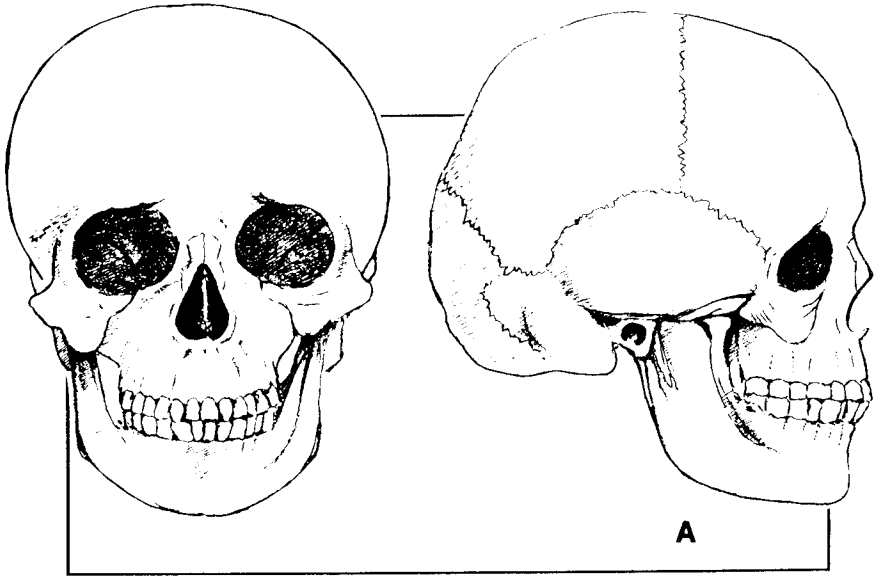
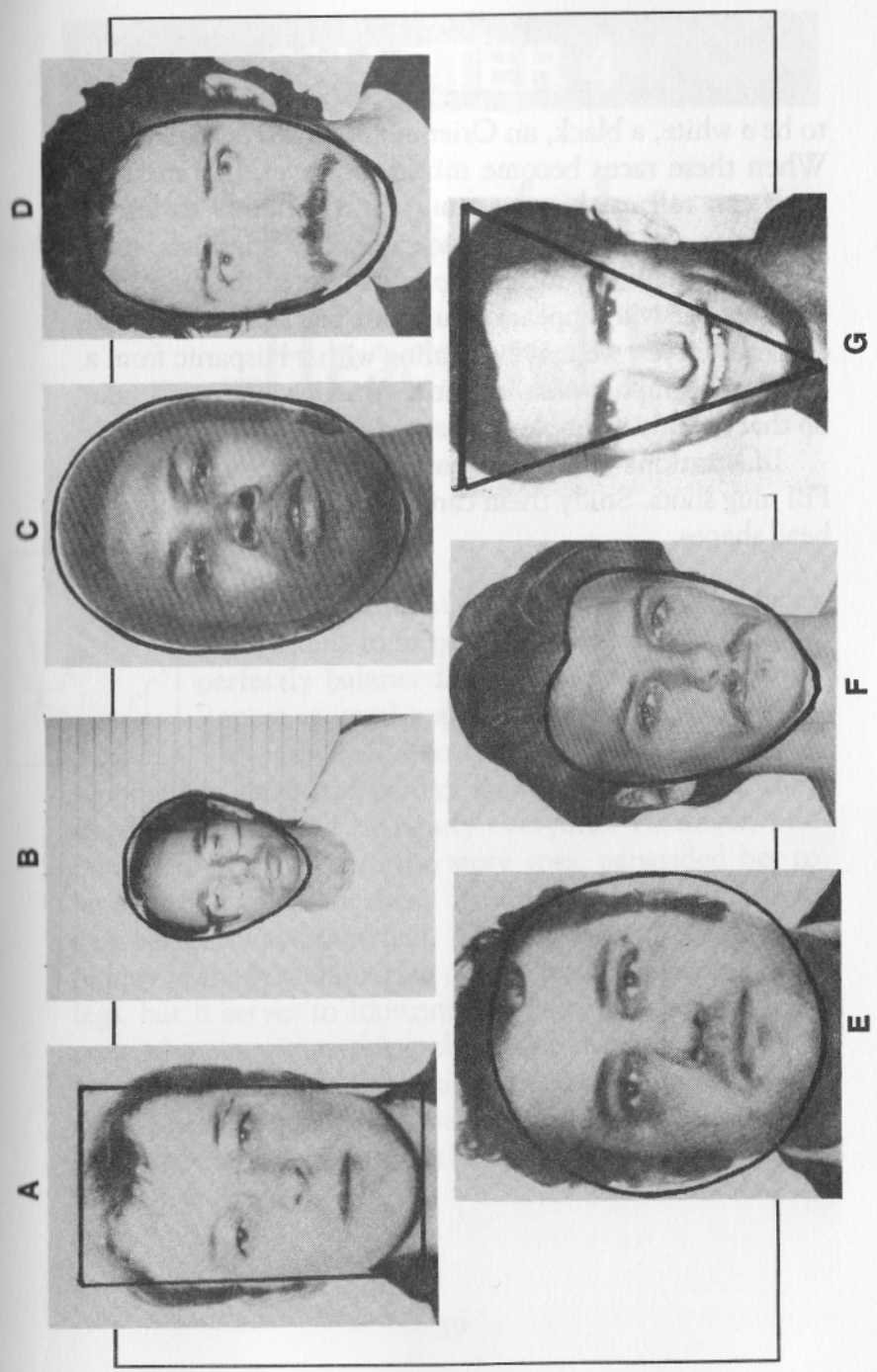


***Illustration* 8, 8A.** Typical female skull. Note the rounded chin, soft curve of jawbone, and smooth forehead.

1. The forehead has no double eminence. Instead, you see a single, sweeping, uninterrupted curve. The forehead protrudes more than that of the male.
2. In most cases, the female skull has no brow ridge at all and certainly not a prominent one like the male skull.
3. The chin bone is rounded in front because the two halves of the jawbone are more completely fused than those of the male.
4. The angle of the jawbone from ear to chin is more rounded, much less acute, than that of the male. These are only some of the differences between male and female skulls. The others are less observable, or less reliable, or both. Other indicators include the presence or absence of a sharp ridge on the inside of the eye socket, or the distance ratio of upper to lower jaw, but these are either impossible to see or too variable to be of value to the nontechnical observer.

Racial Characteristics

In a limited volume such as this, it would be pointless to discuss the differences in appearance between the major racial stocks in this country. That would merely waste the reader's time and try his or her patience by belaboring the obvious. The topic gains in importance, however, when we consider that many people are a racial mixture. Skin color, for example, disappears as a reliable indicator of race in many instances. Other factors have to be relied on, and even these are subject to a lot of misinterpretation. This racial mixing has serious implications for law enforcement, affirmative action, security clearances, pre-employment investigations, tax collection, and a host of other considerations.



Illustrations 9A-G. Common head shapes.

We all have a pretty good notion of what we perceive to be a white, a black, an Oriental, or a Native American. When these races become mixed, however, this mixture itself can tell us things we may find it handy to know. Certain genes, for reasons understood by scientists, tend to be dominant. If, for example, we are confronted by a bank robber who appears Caucasian but has an Oriental cast to the eyes, we may be dealing with a Hispanic from a certain geographic area in Latin America. (We will take up that specific example in chapter 4.)

Illustrations 9A–G are based on photos taken from FBI mug shots. Study them carefully, noting especially the head shapes.

CHAPTER 4

Parts of the Head and Face

The most common error any observer of faces can make is to forget this basic truth: no face is perfectly balanced. Memorize that statement. Repeat it until you can hear it in your sleep. The late Hollywood actress Betty Grable was supposed to have had perfect legs, and, to be sure, they were much admired by nearly everyone. However, one enterprising reporter, so the story goes, persuaded her to let somebody measure them. It turned out that they were not perfectly symmetrical. This news probably didn't reduce anybody's admiration of the stunning beauty of her legs, but it serves to illustrate our point. No pair of legs, arms, thumbs, or anything else about the human body is in perfect balance—especially the face. Therefore, we should bear in mind that one of the best ways to remember a face apart from all others is to note the areas of imbalance.

Frontal Bone: Brow Ridge and Forehead

One of the principal areas of facial imbalance is found in the forehead because the hairline is often uneven. Generally, we need to note only two things about the forehead—its height and its shape. Unfortunately, because hair styles and length often completely hide the hairline, this is one of our least reliable indicators. In those cases where the whole forehead can be seen, there are three basic shapes that tend to predominate. Most others are simply variations of these (Illustration 10).

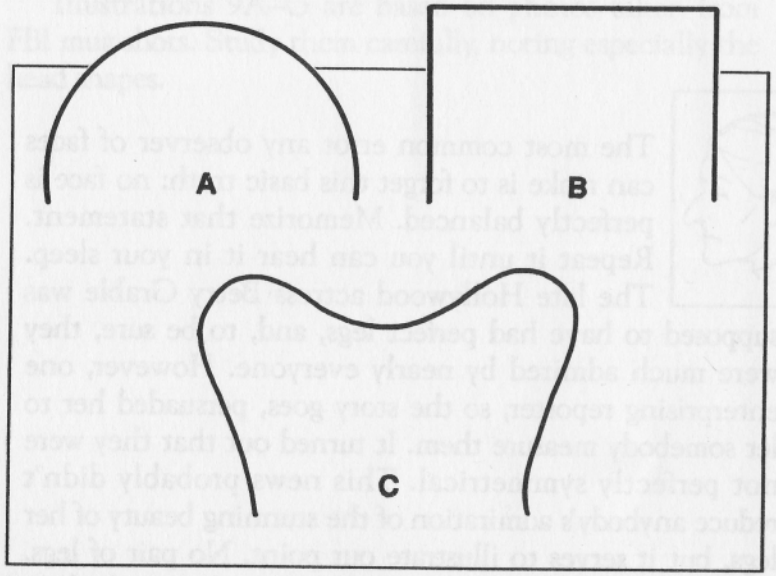


Illustration 10. **Basic forehead shapes.**

Each of these three types may be either high or low, wide or narrow. In the flared type, the receding areas on both sides are sometimes called "bachelor's forehead," and the central point is frequently off-center, thus providing an important identification tag. A variation of the arched

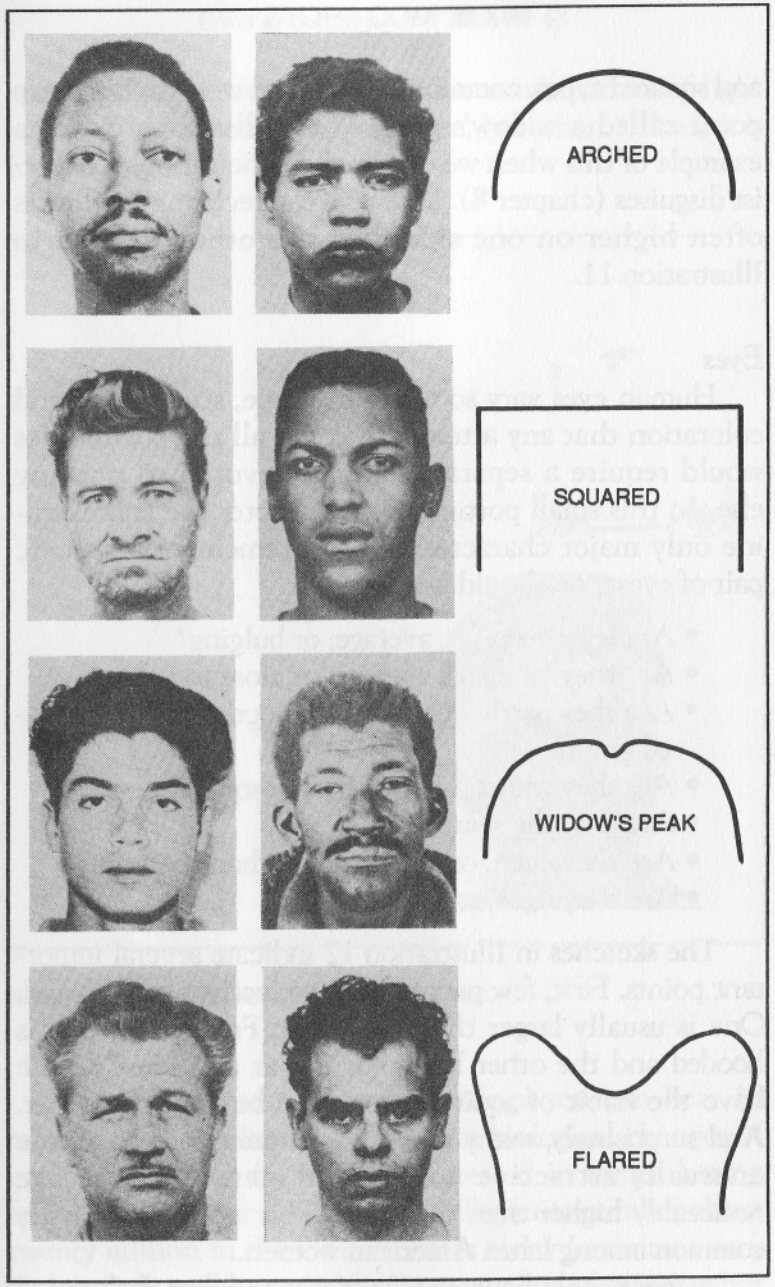


Illustration 11. **Examples of forehead types.**

and squared types, common in men and women, is a sharp point called a widow's peak. We shall see an extreme example of this when we discuss the penetration of terrorist disguises (chapter 8). Likewise, the receding hairline is often higher on one side than the other, as seen in Illustration 11.

Eyes

Human eyes vary so much in shape, size, depth, and coloration that any attempt to cover all the possibilities would require a separate volume devoted to nothing else. In this small portion of one chapter, we can examine only major characteristics. To remember a specific pair of eyes, you should ask yourself:

- Are they deep-set, average, or bulging?
- Are they far apart, average, or close together?
- Are they partly hooded, fully hooded, or not hooded at all?
- Are they wide open, average, or squinty?
- Are they the same size?
- Are they even, or is one higher than the other?
- Are they light or dark?

The sketches in Illustration 12 indicate several important points. First, few people have perfectly matched eyes. One is usually larger than the other. Frequently, one is hooded and the other less so or not at all. Some people have the habit of squinting one eye but not the other. And surprisingly, many people's eyes are not even. Some unusually attractive women and men have one eye noticeably higher than the other. This seems to be fairly common among Latin American women.

A few people have one light eye and one dark eye. I once had a student who had an icy blue right eye and a

warm, golden brown left eye. This combination of light and dark eyes doesn't happen often, but when it does, it is hard to forget.

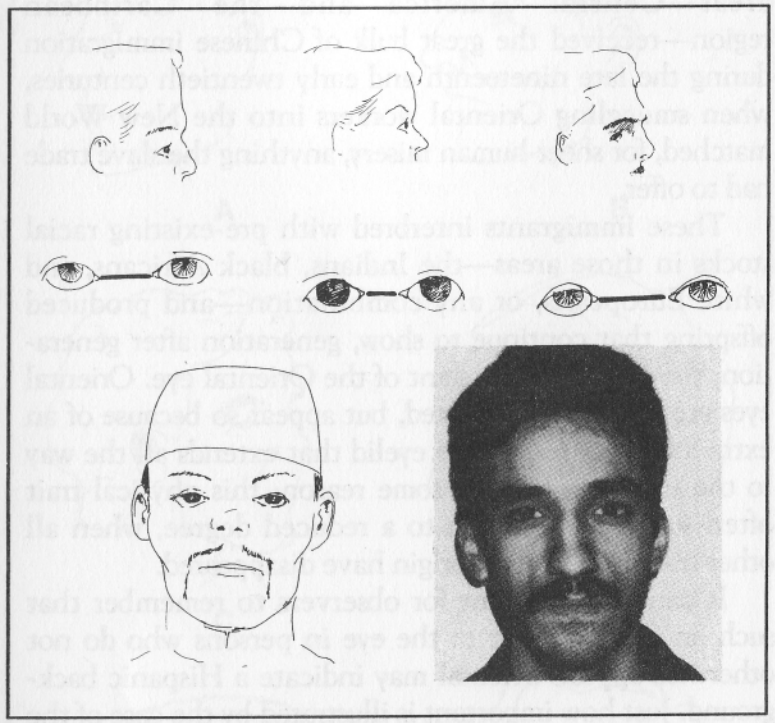


Illustration 12. **Different eye characteristics.**

One of the most important things you can bear in mind is that population shifts create biological changes of great importance to anyone interested in remembering faces. Consider, for example, that Hispanics number about twenty million in the United States today (estimates vary and are generally unreliable for a number of reasons, but the point is that Hispanics are a significant portion of the

U.S. population), and the number grows daily. Now consider further that most of them have come either from Caribbean islands, notably Puerto Rico and Cuba, or from Mexico and the Central American republics. Both areas—Central America and the Caribbean region—received the great bulk of Chinese immigration during the late nineteenth and early twentieth centuries, when smuggling Oriental workers into the New World matched, for sheer human misery, anything the slave trade had to offer.

These immigrants interbred with pre-existing racial stocks in those areas—the Indians, black Africans, and white Europeans, or any combination—and produced offspring that continue to show, generation after generation, the characteristic slant of the Oriental eye. Oriental eyes are not actually slanted, but appear so because of an extra fold of skin over the eyelid that extends all the way to the inner corner. For some reason, this physical trait often survives, although to a reduced degree, when all other traces of Oriental origin have disappeared.

It can be important for observers to remember that such an Oriental cast to the eye in persons who do not otherwise appear Oriental may indicate a Hispanic background. Just how important is illustrated by the case of the Los Angeles "Night Stalker," Richard Ramirez. Several witnesses claimed to have seen him, but nobody described the suspect as Hispanic until he had killed fourteen people. Meanwhile, the police wasted time on some non-Hispanic suspects. If somebody had noticed that his eyes are those of a Hispanic with Oriental blood, some of those fourteen victims might be alive today.

Nose and Filtrum

The nose is far more complicated than we might sup-

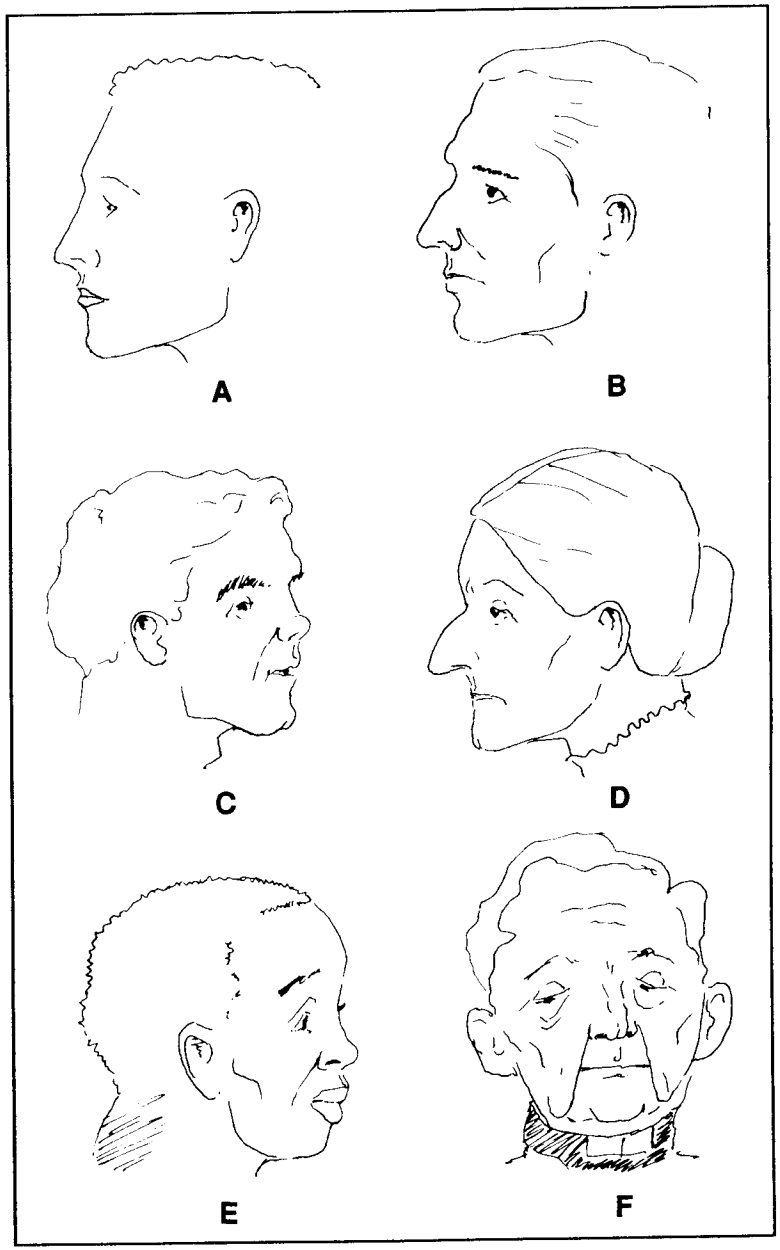


Illustration 13. **Different types of noses.**

pose. It can be oversized like that of Jimmy Durante; the tiny button nose of Shirley Temple; the booze-raddled, ripe tomato of W.C. Fields; the knifelike, aristocratic beak of Basil Rathbone; short and Irish like President Reagan's; or long and Levantine like Walter Mondale's or Danny Thomas'.

From either point of view—profile or full face—the nose is a triangle just like the one you cut in a pumpkin to make a Halloween jack-o'-lantern. Common profile shapes include the classical or "Greek god" nose, the Roman nose, the aquiline or hawk nose, the Celtic type, and the Negroid type, by which we mean the West, Central, or South African type (Illustration 13).

From the front, we see the parts of the nose (Illustration 14):

- The root, which joins the brow ridge (refer to Illustrations 7 and 8, pages 34 and 35).

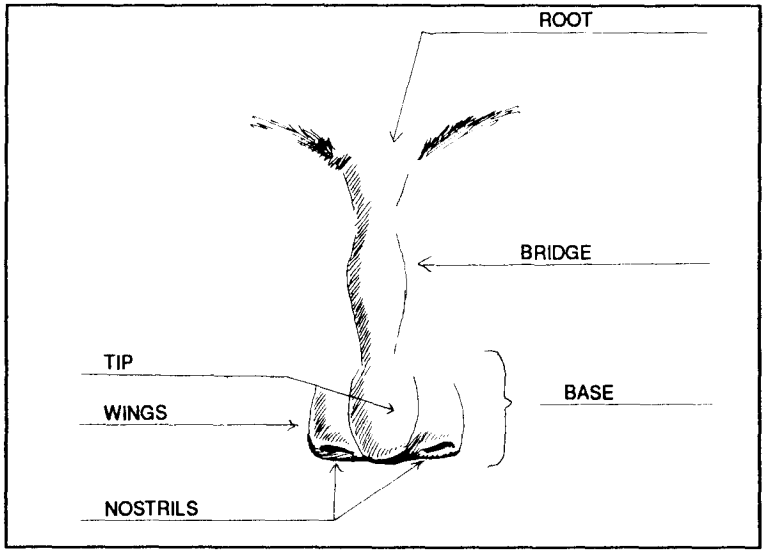


Illustration 14. **Parts of the nose.**

- The bridge, which is the foremost end of the nasal bone and the part most frequently broken.
- The base, which includes the wings.
- The nostrils.
- The tip.

The filtrum is the little groove that runs from the bottom of the nose to the upper lip. Nobody pays much attention to it, but it makes a difference in the composition of the face. It can be wide, narrow, deep, or shallow, as you can see in Illustration 15.

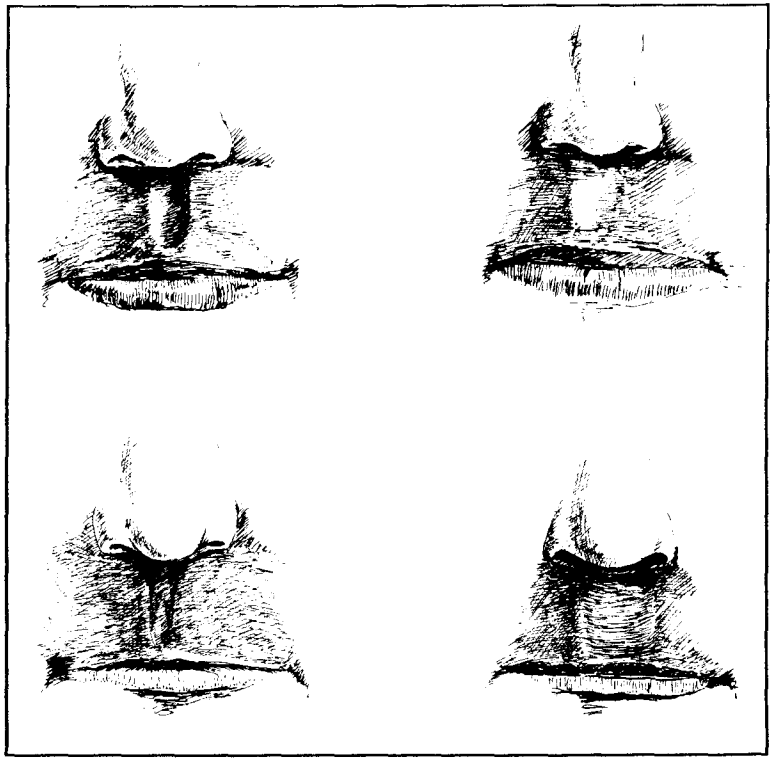


Illustration 15. **The filtrum.**

Mouth

Almost as many different types of mouths exist as do eyes and noses. Generally, there are three basic mouth types. Among Caucasians, North American Indians, Orientals, and East African blacks, the upper lip tends to be longer and somewhat thinner than the lower lip. West African blacks and South American Indians usu-

Illustration 16. **Three basic mouth types.**

ally have upper and lower lips of approximately the same length and thickness. The lower lip of some Middle Eastern and Arabic peoples is actually longer from side to side than the upper. The next time you see a photograph of Yasir Arafat, observe this feature (Illustration 16).

As with all generalizations, some exceptions do exist.

Below are six major exceptions to the three basic mouth types (Illustration 17):

(A) Both lips are thick.
(B) Both lips are thin.
(C) Upper lip is thick.
(D) Lower lip is thick.
(E) Upper lip is thin.
(F) Lower lip is thin.

Illustration 17. **Different lip sizes.**

Cheekbones

The cheekbones comprise two parts. One, which runs from just in front of the ear to just behind the eye, has the unfamiliar technical name of zygomatic arch. The other,

which is a small bone that encloses the outer part of the eye socket, is the malar bone. Both are important in determining identities.

The zygomatic arch establishes the width of the face. We encountered it in chapter 3 when we noted that some critical distances are much wider in certain racial or ethnic stocks (Eskimos, Native Americans, Siberian peoples) than in others. Anyone who has examined photographs of Raisa Gorbachev or Joseph Stalin must have noticed this critical distance is perceptibly wider. This characteristic becomes important when it affects our perception of a person's eyes. Wide cheekbones can make wide-set eyes seem much more average. (We will see how this works in chapter 8, when we consider the face of terrorist Marilyn Buck.) The malar bone is frequently broken in automobile accidents or fist fights and, as with a broken nose, is a good memory jogger (See Illustration 18).

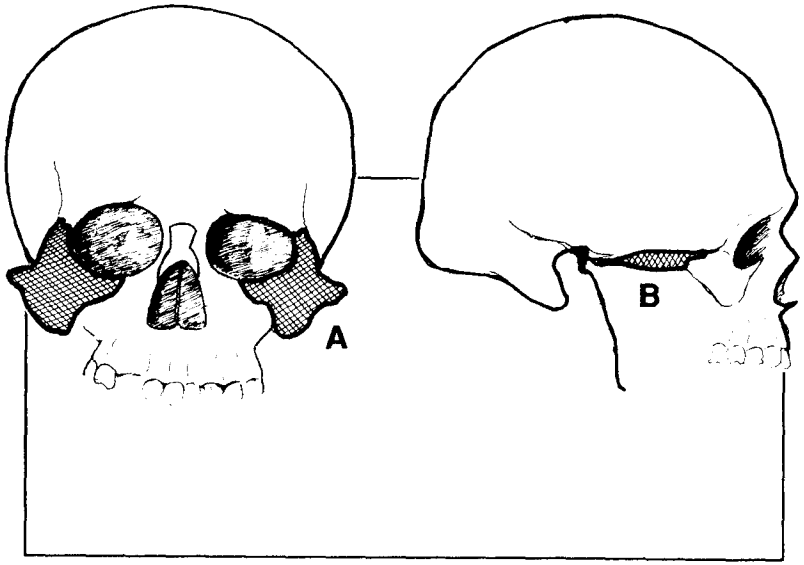


***Illustration* 18. A. Malar bone B. Zygomatic arch**

Jaw Line

The jaw line determines the shape of the lower face. As we noted earlier, male and female jaw lines differ quite significantly. A review of the drawings of the human skull in Illustrations 7, 7A (page 34), 8, and 8A (page 35), noting especially the angle of the jawbone as it drops from the ear and turns forward to the chin, will show the differences. The chin itself is formed by the joining of the two halves of the horseshoe-shaped jawbone. In some people it protrudes much more than in others and is occasionally cleft. The late actor Cary Grant had a sharply cleft chin.

Ears

Seldom will a witness be able to describe the ears of an offender, yet ears can be an important identification tool. Some have distinctive shapes or distortions, such as elongated lobes, but for our purposes, we need to note just four categories:

- Close-set ears that lie flat against the skull.
- Flaring ears or "jug-handles."
- Extra large or small ears.
- Damaged or deformed ears.

This final category includes cauliflower ears, common among boxers, wrestlers, and others who devote much time to physical combat. Repeated blows or pressure to the ear ruptures the blood vessels and produces the reddish-purple swelling that characterizes cauliflower ears. Noting the possible origins of this type of damage can be an important clue to an offender's identity. Thus a bank teller, for example, who notices an armed robber's cauliflower ear may be giving the police an important lead (Illustration 19).

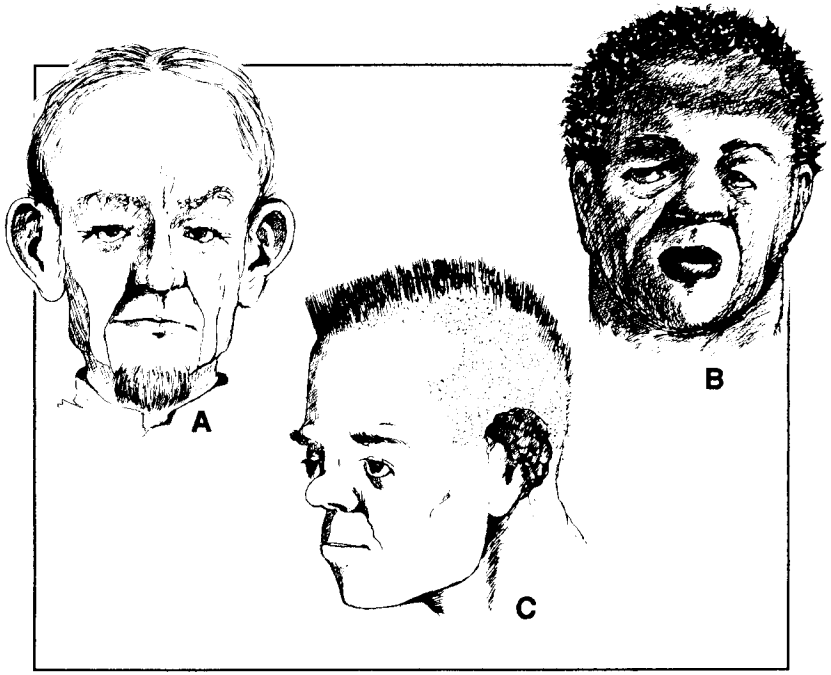


Illustration 19. Ears.

Neck

It is helpful to note if the neck is thick, fat, muscular, thin, or wiry. The skin texture often reveals aspects of the person's life-style, that is, exposure to sun, wind, and rain (hence the term "redneck").

Facial and Neck Muscles

The head and neck have many muscles, all of which have forbidding Latin names. We need to examine only the three muscles that are most easily observed and can therefore serve as identity tags (Illustration 20):

A) The kissing muscle (*orbicularis oris*).
B) The chewing muscle (*masseter*).
C) The so-called neck muscle (*sterno-cleido-mastoid*).

The kissing muscle, quite prominent in some people, completely surrounds the mouth and controls the movements of the lips. The chewing muscle runs from just in front of the ear to the angle of the jawbone and governs the act of chewing. In many people, it twitches when its owner is under stress and in this way serves as an identity tag. The neck muscle runs from behind the ear to the collarbone and chest bone, or sternum. In some people, it is prominent; in others hardly noticeable (Illustration 20).

Facial Angles

Casual observers, especially when under stress, do not normally notice facial angles. So, in most cases, an inves-

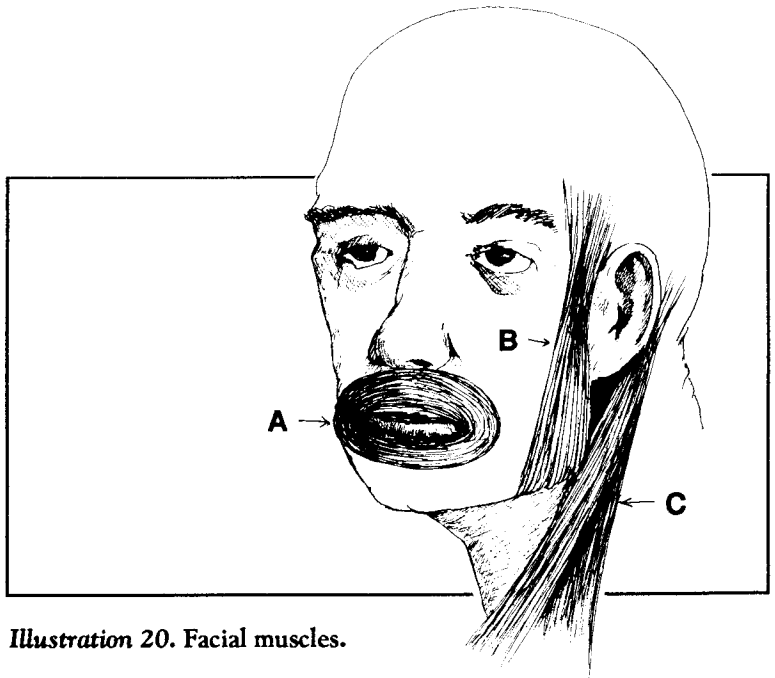


Illustration 20. Facial muscles.

tigator would waste his or her time by pursuing it. Because it involves the profile rather than the front view, it is of secondary importance to most investigators anyway.

For what it's worth, the facial angle has been described by Jeno Barcsay in his book *Anatomy for the Artist* and by other human anatomy specialists as the angle formed by the intersection of:

1) The most prominent point on the forehead to the base of the nose, and
2) The base of the nose to the ear hole.

In remembering faces, it is important only when it departs from the norm so far that it becomes grotesque and attracts attention.

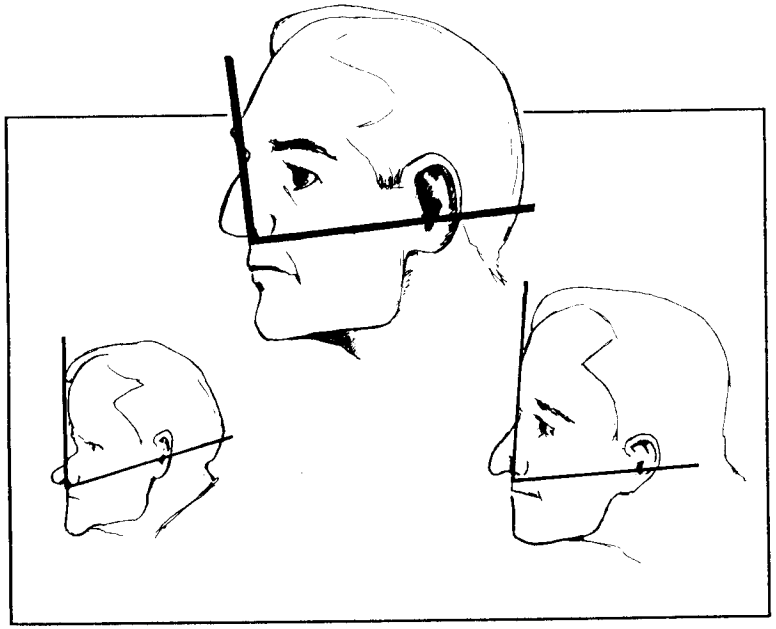
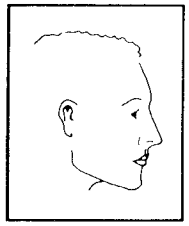


Illustration 21. **The facial angle.**

CHAPTER 5

The Aging Process



Most adults can, with varying degrees of accuracy, judge how old someone is by placing them in age brackets of five or ten years. Children have more problems with this, because to a ten-year-old, anybody over thirty is "very old." Some people make their living at carnivals and county fairs by guessing ages, and they can come a lot closer than five or ten years. We all sense the signs that distinguish a twenty-eight-year-old from a thirty-four-year-old, though we may not be able to spell them out.

For example, we recognize the differences brought on by changes in the skeletal and skin systems. The head of a child will have an entirely different ratio of facial size to braincase size than it will show at maturity, and the angle from the chin to the highest point on the cranium will be markedly different. Both of these will change again with increasing age (see Illustration 22). We also notice that as people age the shoulders narrow, the pelvis widens, and many people develop a pronounced stoop. Among

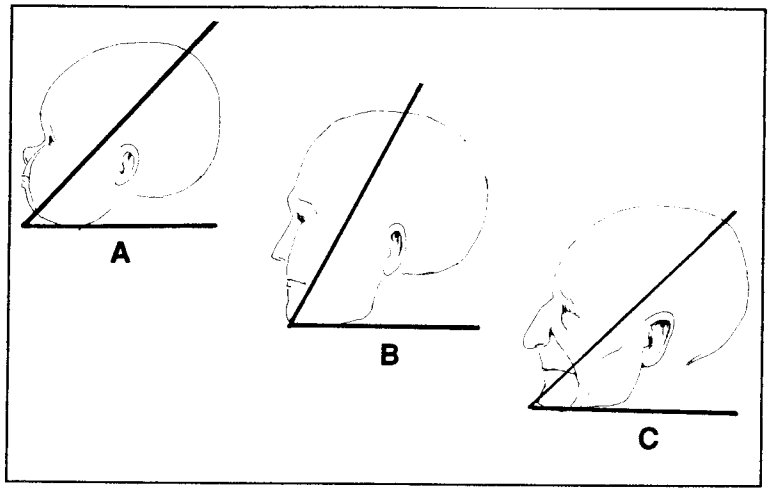


Illustration 22. Head shapes at different ages. Note chin-to-cranium changes.

women, this is often the result of a painful condition known as osteoporosis, brought about by a calcium deficiency. As people age, head hair will change color due to pigment loss and also develop the same fine, gossamer quality it had in early childhood. Teeth wear down and become discolored in ways often visible to the casual observer. Skin becomes less resilient, more scaly, and develops discolorations, such as splotches and "liver spots."

We are all aware of these aging signs, even if we don't think about them in our daily contacts with others, so they usually aren't a problem to us. There are two areas, however, where our judgment can be, and often is, badly derailed. They give people who don't want to be recognized a tremendous advantage, especially if a considerable period of years has elapsed. Conversely, they present a disadvantage to people charged with finding fugitives.

The first area of misjudgment involves the fact that people don't grow old at the same rate. We have all known individuals who look ten, fifteen, or even twenty years older or younger than they really are. We have also known people who "aged ten years overnight" because of illness, personal tragedy, or subjection to sustained terror.

FACTORS THAT AFFECT APPEARANCE

The above changes are natural and spontaneous, not the result of conscious effort. But other changes (permanent or temporary) can be wrought through surgery, cosmetics, diet, or life-style.

Elective Surgery

Surgery may be either reconstructive or cosmetic, though the distinction is often blurred. Both are expensive, often costing thousands of dollars, and for that reason, plastic surgery isn't a factor in recognizing most crime suspects. Of course, there are exceptions. International terrorists, members of organizations to which expense is not an object, sometimes have their features altered. At this writing, law-enforcement officials believe that a husband-and-wife team wanted for bank fraud on a large scale may have resorted to plastic surgery—especially the wife, who is known to be quite vain about her appearance and who was beginning to develop deep wrinkles about the neck and mouth.

The important thing to remember is that people usually undergo this surgery to create the illusion of youth. The two most popular procedures are face lifts, which smooth out wrinkles, and nose jobs, which are intended to bring the owner's schnozzle into line with accepted standards of beauty. Even Zsa Zsa Gabor, a celebrated beauty,

sought recently to improve on nature by having her nose changed. (One wag has suggested she should have chosen to work on her mouth, which has gotten her in more trouble than her nose.) Other celebrities who have had recent cosmetic surgery are Burt Lancaster, Joan Rivers, Kirk Douglas, Raquel Welch, Jack Lemmon, Jacqueline Onassis, and Eddie Fisher. In most cases, the cost is prohibitive for ordinary folk.

Cosmetic Changes

Cosmetics are a lot less expensive than surgery and account for the greatest amount of money spent on trying to fool people about age. Cosmetics include theatrical supplies and hair styling products and are employed by men as well as women. Whole industries thrive on this obsession. Skin creams, hair products, sun blocks, mud packs, milk baths, skin oils, soaps, blackhead removers, astringents, abrasives, moisturizers, skin replenishers, hair dyes, lip balms, skin darkeners, skin lighteners, hair removers, hair restorers, and literally hundreds of shades of rouge, eye shadow, and lipstick are sold, hawked, mass-marketed, or smuggled to the millions of people worldwide, male and female, desperate to keep Father Time at arm's length.

Facial Hair

Most of these products are supposed to make people look younger, and many of them succeed to one degree or another. But, we occasionally run into somebody who goes to great lengths to look older. Think of the neighborhood fourteen-year-old who struggles to grow a mustache so he can look like Dad or his favorite role model. On a more serious level, facial hair does tend to make males look older. This is especially true as men approach middle

age because one of the first areas to lose pigmentation and turn gray is around the chin and cheeks. This can throw off judgment of a man's age by ten or more years, depending on the experience of the witness. In cases of men with graying beards, observers should look for other indicators, such as upright stance, firm movement, athletic walk, or skin tone, which may help to betray the subject's true age.

Weight Loss or Gain

Weight is a factor, though a relatively minor one, in throwing off our age judgment. Once the body (including the face) has begun to accumulate fat, two problems arise. First, excessive fat by its very presence makes a person look older and move more ponderously, which adds to the impression of age. Second, if excessive weight is then lost, the skin sags, often making the subject appear older and more drawn than ever.

As a rule of thumb, people who eat balanced, moderate meals, avoid fatty substances, and maintain a diet strong in fiber and fruit retain a more youthful appearance than those whose diets are loaded with well-marbled steaks and chocolate candy bars. Consequently, a knowledge of someone's eating habits can contribute to the accuracy of your guess about that person's age.

Life-style

In the final analysis, life-style is probably the single most important element affecting the aging of any person. Its effects linger after cosmetics are wiped off or fail to conceal, hairpieces are discarded or lost, and surgery is in need of updating (as often happens). A discussion follows on some of the most common life-style factors that affect appearance and, consequently, the accuracy of our age estimates.

Alcohol

Excessive drinking over a prolonged period will produce external appearances associated with "hobnail liver," nearly all of which increase the impression of advancing years. Facial skin often takes on a pasty pallor, and the cheeks and nose turn red as a result of tiny ruptured capillaries, a condition sometimes called "rum blossom." Eyes become glassy and watery, and their whites acquire a yellowish cast. Malnutrition often accompanies advanced alcoholism because the alcoholic, for reasons beyond the scope of this book, greatly reduces his/her food intake. All these factors combine to add years to appearance—and estimates of age. I had a friend who looked seventy when, at fifty-one, he died of complications brought on by acute alcoholism.

Malnutrition

Malnutrition produces all sorts of changes that contribute to our perception of aging. Among these are sunken eyes, hair loss, protruding belly, sagging skin, and lethargic movement. A fuller treatment of malnutrition can be found in many public health textbooks for those interested. For our purposes, if we suspect serious undernourishment, we can adjust our age estimate downward.

Occupation

Certain occupations by their very nature contribute to external appearances of age. Chief among these are those that require a lot of time outdoors because excessive exposure to the sun's rays produces wrinkling, reddening, dryness, and splotching. The risk of skin cancer is known to be markedly higher among outdoor people who do not protect their skin from the sun's damaging rays. Among the people at risk for skin cancer are farmers, professional

tennis players, construction workers, and commercial fishermen. Even forest rangers and game wardens who wear hats as part of their uniform develop crow's-feet at the corners of the eyes from squinting into bright light.

Stress

Stress can be brought on by many factors, for example, a demanding job, domestic disputes, unhappy personal or professional relationships, religious or ethical conflicts, or overdedication to life in the fast lane. In like manner, poverty produces stress that accelerates the impression of aging. The many photographs of poverty-stricken dust-bowl farm families during the Great Depression and starving hill folk in such works as *Let Us Now Praise Famous Men* by James Agee show a gut-wrenching parade of men, women, and children "old before their time." We all know about prostitutes still in their twenties who look ready for the grave or the cop who, at forty-five, looks sixty and wants to retire before the stress boils over and he eats his gun.

EFFECTS OF AGING

Now that the factors affecting aging have been properly evaluated, what are some of the effects of aging on actual appearance? The single greatest consideration is the force exerted by the Earth's gravity. From the time we are born until the moment we die, the pull of gravity is drawing every part of us earthward. This causes sagging of our skin (it doesn't sag skyward, does it?), as well as a gradual deterioration of the heart as it strains to push our blood against gravity's force. Witness what happens when our heart finally stops: the blood drains downward and collects in the part of our body closest the Earth, produc-

ing what appear to be gigantic bruises running the length of the lowermost surface. (This subject would fill a whole scientific volume by itself.) Gravity also leaves its marks on our posture, our gait, and the gradual deterioration of our body's weight-bearing parts—including the spine, hips, knees, and feet.

Facial Changes

Perhaps the easiest way to demonstrate the effects of aging on facial appearance and the importance of those effects on the identification process is to walk through an actual case.

In the fall of 1989, the Law Enforcement Television Network (LETN) of Dallas, Texas, consulted me about the probable appearance of an escapee who had been sentenced to life in prison for the murder of a police officer. The man escaped in 1974, but the last available

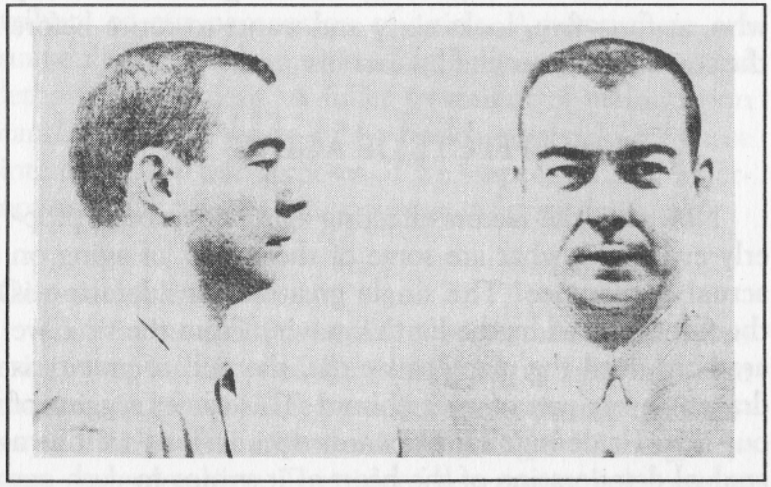


***Illustration* 23. Photograph of suspect at about age 33 or 34, taken twenty-two years before, which the author used to make his drawing of what the suspect might look like today.**

photograph of him was taken at the time of his arrest in 1967 (Illustration 23). LETN wished to broadcast a forensic drawing representing the man's current appearance, twenty-two years after this mug shot was taken at age thirty-three or thirty-four. The result (Illustration 24) was based upon the following suppositions:

- He is now fifty-six years old, in what is generally understood to be advanced middle age.
- He is probably bald or nearly so, having begun to lose his hair in his early thirties.
- He probably has a pronounced double chin or one that sags because he displayed a tendency to fat in that area when the 1967 photo was taken.
- His remaining hair is probably gray, with the exception of the eyebrows, which retain pigmentation longer.
- Facial lines will be deeper, more numerous, and longer but will follow the pattern already established by his early thirties. Those that lie next to the nose wings will now begin higher toward the lateral surfaces of the nose, due to the sagging process discussed earlier.
- The nose itself, which continues to grow slowly, will now be longer and broader.
- The earlobes will be slightly longer.
- The corrugator muscles, which lie between the eye and the eyebrow toward the inside corner, will probably have made the frown wrinkles we see in the 1967 photo even deeper.
- He has probably developed crow's-feet at the outside corners of his eyes.
- The skin under his eyes will probably sag since the earlier photo shows this tendency.
- Other facial muscles, such as the *depressor anguli*

oris (running from the chin to the mouth), have probably accentuated an already dour expression.

- The entire lower half of his face will surely be heavier and thicker now. Unless he has lost weight, this will no doubt be true of the neck also.

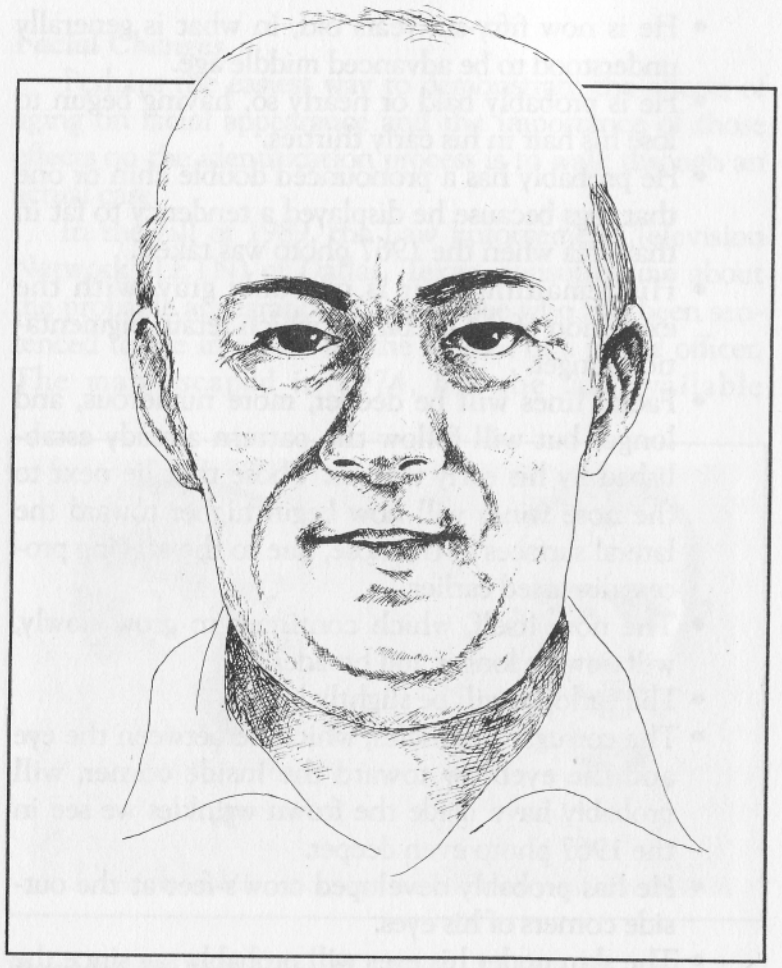
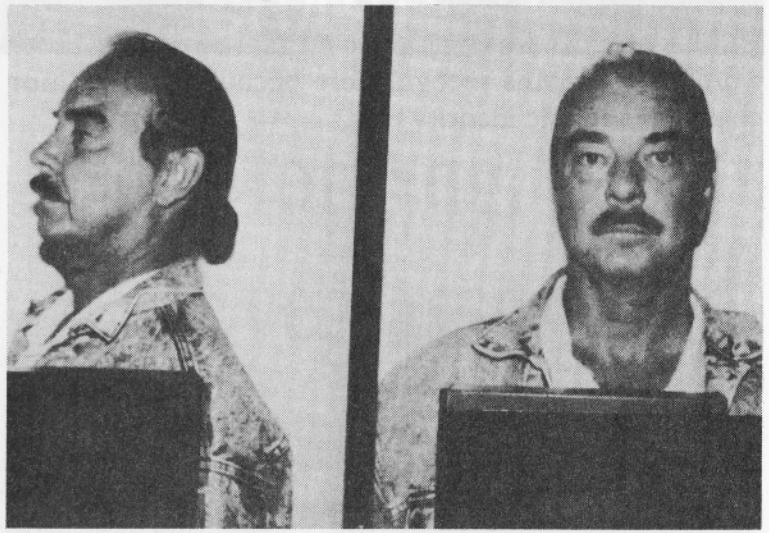


Illustration 24. **Author's informed guess as to how the suspect would have appeared in 1989 at age 56.**



A later photograph of the suspect, taken after the author had completed his drawing of what he might look like. Compare with the author's drawing (Illustration 24).

These are the suppositions on which I based the drawing here and those I expressed in an accompanying letter to LETN in October 1989. The suppositions were based on known facts of human anatomy and the aging process. I have used them as the basis for numerous other drawings, although twenty-two years is an unusually long period to consider. They are important because they embody the principles most of us can bring to bear on the process of guessing what a missing adult might look like. In the absence of massive injury or radical surgery, the basic bone structure will remain essentially unchanged, as will the muscles of the face. In this instance, the subject's eyes remain hooded, his upper lip extends out above the lower lip, and he appears to have an overbite. The shape of the head remains the same, as do the ears. His chin is still weak,

and his nostrils point inward and downward. In other words, he remains recognizable because age has not changed the basic identity tags.

CHAPTER 6

Clothing, Eyeglasses, and Headgear

In chapters 4 and 5, we concerned ourselves with the actual physical structure of the human face—bone, muscle, skin, etc. We cannot stop here because we know from our daily experience that many factors operate to alter our perceptions of what we see. All of us have mistaken a clump of bushes or a tree trunk in the dusk for a human form. Movement or change in shadows, lights, positions, or colors sometimes cause us to "see things." In fact, such changes have inspired many tales of ghosts and goblins. Among those things that change the arrangement of shadows or shift the line of view on human faces are clothing, eyeglasses, and headgear. Let's examine each of these.

CLOTHING

The articles that lie closest to the face are the ones most likely to alter our perceptions. These include

shirts, blouses, scarves, and jackets or coats—especially those with high collars. The collar itself can cast a strong shadow across the lower part of the face and cause a strong chin to appear weak, or vice versa. A

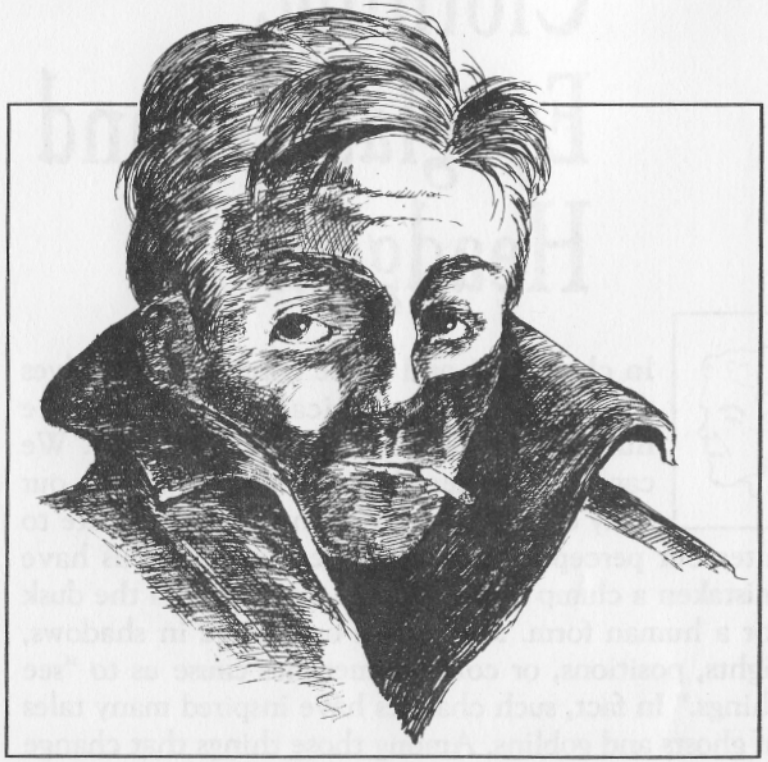


Illustration 25. **Up-turned collar obscures lower half of face.**

scarf, drawn up under the chin, can hide sagging flesh as well as scars or other disfigurements. People trying to enhance their memory of faces should concentrate on looking past such obstructions, always bearing in mind that their perceptions of reality will be distorted unless they are careful (Illustration 25).

EYEGLASSES

Of all the factors that can distort the image of a face, glasses are the most obvious and the most important. A whole industry has sprung up around designing eyeglasses to accommodate different personalities. The variety of styles available in any optical shop is limited only by the imagination of the customer.

American humorist and writer Dorothy Parker's famous line ("Men seldom make passes at girls who wear glasses") no longer is true—if it ever was. Glasses can be used to create all sorts of illusions, from sexy to scholarly. Our concern with glasses is with their function as dis-

Mug shot depicting the way glasses affect appearance.

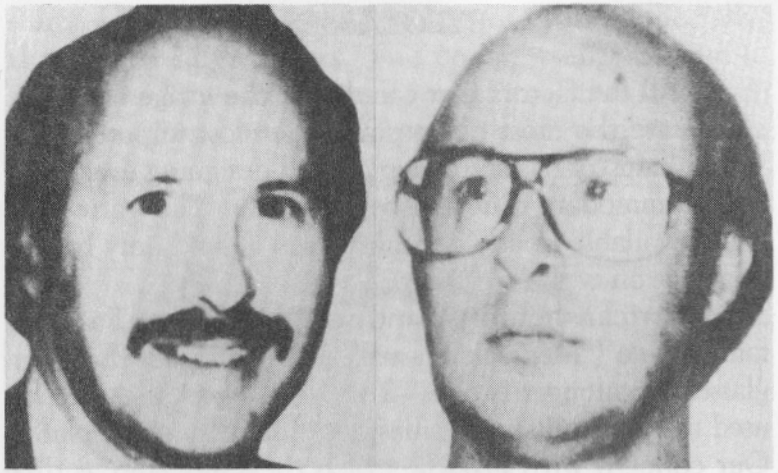


Photo on the right shows how glasses change the appearance of this man.

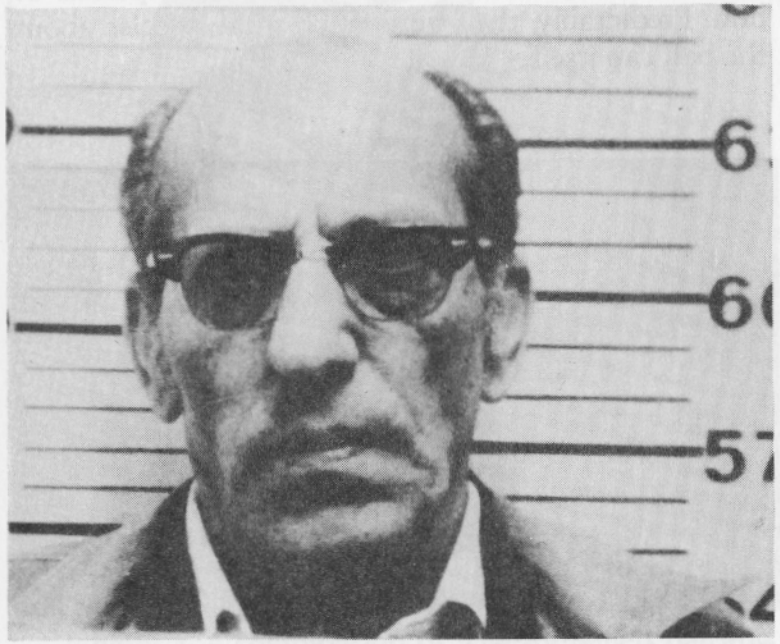
tracters, however. Three aspects come immediately to mind.

Glasses distract by disguising or distorting our impression of the distance across the face and between the eyes. Large-framed glasses cause a face to appear thinner and the eyes wider apart. Small-framed glasses cause the opposite effect: the face appears fuller and the eyes closer set. We will see how this works when we come to chapter 8.

Glasses can be a form of jewelry. Some glasses are quite ornate, with rims and temples of precious metals set with expensive stones. These distract our attention from the whole face, including the eyes behind them. Heavy, horn-rimmed glasses do exactly the same thing.

Glasses throw shadows. No matter what angle the light comes from, the rims will cast a shadow on some part of the face, and the glass will reflect light—often obscuring our view of the eye.

Large-framed glasses cause a face to appear thinner and the eyes wider apart.



Small-framed glasses make the face seem fuller and the eyes closer.

HEADGEAR

Hats and caps can conceal, distract, or both. Hats with wide brims throw shadows, often across the entire face. Actor Stacy Keach playing Philip Marlowe, private eye, while wearing a snap-brim fedora does not look like Stacy Keach playing a western villain in an albino wig.

A long-billed ball cap does much the same thing: it casts a strong shadow across the eyes. A couple of years ago a bank robber who operated in West Virginia and Ohio came to be known as the "Ball Cap Bandit" because of his custom of wearing that type of headgear. His ball cap completely obscured his forehead and placed his eyes in shadow, and witnesses consistently gave inaccurate facial descriptions of him. Predictably, they were much more precise about the ball cap itself.

Drawings depict how ball cap and dark glasses conceal features and distract witnesses.

Illustration 26. **Trooper-type hat hides hair and top of forehead.**

Like wide-brimmed fedoras, western-style and trooper hats change our impression of the shape of the face. That is, they can cause an oblong face to appear triangular (Illustration 26). Toboggan caps, on the other hand, don't change the shape of the head but do cover the forehead and hide long hair (Illustration 27).

Finally, the combination of wide-brimmed hat and high coat collar is almost as effective as a mask. Putting

the two distracters together turns the wearer into the image of a classic 1920s mobster or Mafia hit man (Illustration 28).

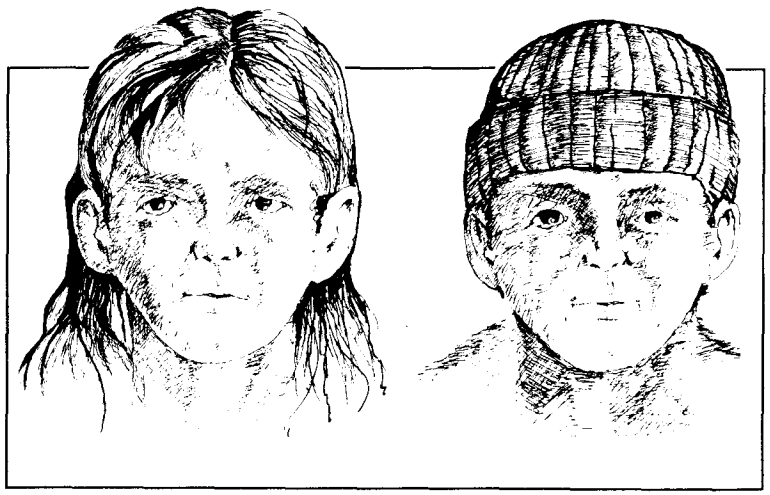


Illustration 27. **Note that toboggan caps can hide a lot of hair.**

Illustration 28. **This subject might as well be wearing a mask.**

CHAPTER 7

Hair Styles and Facial Hair

In the last chapter, we began the practice of looking past the things that get in our way. We call such things distracters because they either draw our attention away from the essentials or hide them from view. We saw how eyeglasses and certain items of clothing—hats and high collars, for example—accomplish this. Almost without exception, they can be exchanged, altered, or discarded on short notice because they are not part of our bodies, making them very convenient for people trying to hide.

Facial and head hair, unless we are dealing with wigs or false beards, is attached to our skin.

HEAD HAIR

Hair can be cut off quickly, but it takes a relatively long time to grow. Once out in the open, it can be rearranged in an infinite variety of styles. Because of these two factors, it is pointless to waste time and space listing

or picturing the thousands of hair fashions. Why, then, should we bother discussing it at all? There are essentially two reasons.

First, we noted in an earlier chapter that the height of the forehead is the least reliable of our five critical distances because head hair can be used to cover it up. In like manner, hair style can be used to alter the shape of the forehead. We observed that foreheads can be classified according to three basic types: arched, squared, or flaring. The so-called "mod" haircut—first associated with wide coat lapels, unisex oxford shoes, and broad, flowered neckties in the late 1960s—still enjoys a certain popularity even though such fashions have long since died away. That particular hair style, coming down and across the forehead, tends to square off an arched or flared configuration and completely hides a widow's peak.

The second reason is more basic and more general. Hair styles can be classified as (a) those that increase the impression of height; (b) those that decrease the impression of height; and (c) those that do neither. Study the three faces in Illustration 29. You will notice that your eye tends to follow the lines of the hair style. For this reason long straight hair falling to the shoulders will tend to make the wearer appear shorter, whereas an upswept hairdo or a French roll on women will tend to accentuate the impression of height. In men, a military haircut (also called a shoebrush, flattop, or burr cut) has a similar effect because the hairs point upward.

Such differences can cause witnesses to misjudge a subject's height by two inches or even more. I know a small-time rock musician and sometime drug dealer who actually stands six feet six inches, but who, because of his long hippie haircut and slouching posture, appears to be no more than six feet two.

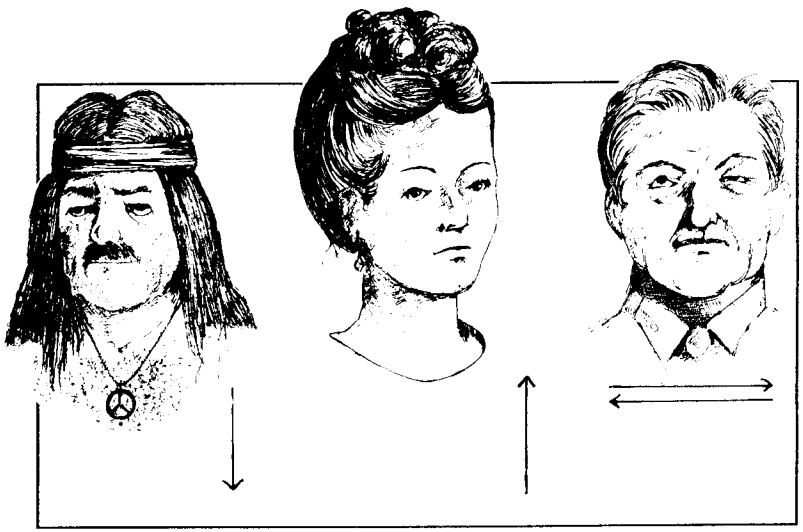


Illustration 29. Hair styles direct the eyes of the observer.

FACIAL HAIR

Facial hair—beards, mustaches, and sideburns—comes in almost as many shapes and sizes as head hair. So it would be pointless to list or picture them all. Nevertheless, it is helpful to note that facial hair can be classified according to the effect it has in creating an impression of head shape.

Men grow beards for several reasons. In certain geographic areas, beards serve the purely practical function of protecting against bitter cold or insects. In more moderate parts, they tend to be worn for one or more of the following reasons:

- To enhance personal attractiveness.
- To alter one's identity.
- To strike a pose.

To these we may add simple convenience, as under battlefield conditions, or avoidance of discomfort, as when one has a painful skin condition. Most other reasons are variations of one of these. It will be helpful to examine each in order, so as to arrive at a classification of impressions. This in turn will ease our basic task of seeing past the distracters.

Personal Attractiveness

Some men look better with a beard than without. An extreme case is that of General George Custer (thoroughly whipped by Crazy Horse at the Battle of the Little Bighorn) who grew a beard to cover an extremely weak chin. Beards can also hide scars, acne, birthmarks, or other blemishes.

Alteration of Identity

This category tells its own story and is essentially what the current chapter is about. By covering the lower half of the face with natural hair, either in whole or in part, you create a sort of permanent half-mask. In order to understand how this works and to see past the various images to the face underneath, we need to look at the third in our list of reasons.

Striking a Pose

Whenever we purposely change our appearance in a way that is not inspired by necessity or convenience, we consciously or unconsciously reveal our ideals and aspirations, our political beliefs, our standards, our values, and the identity of the sort of people we admire. Perhaps the best place to observe this phenomenon on a grand scale is the nearest college campus, which often functions as a

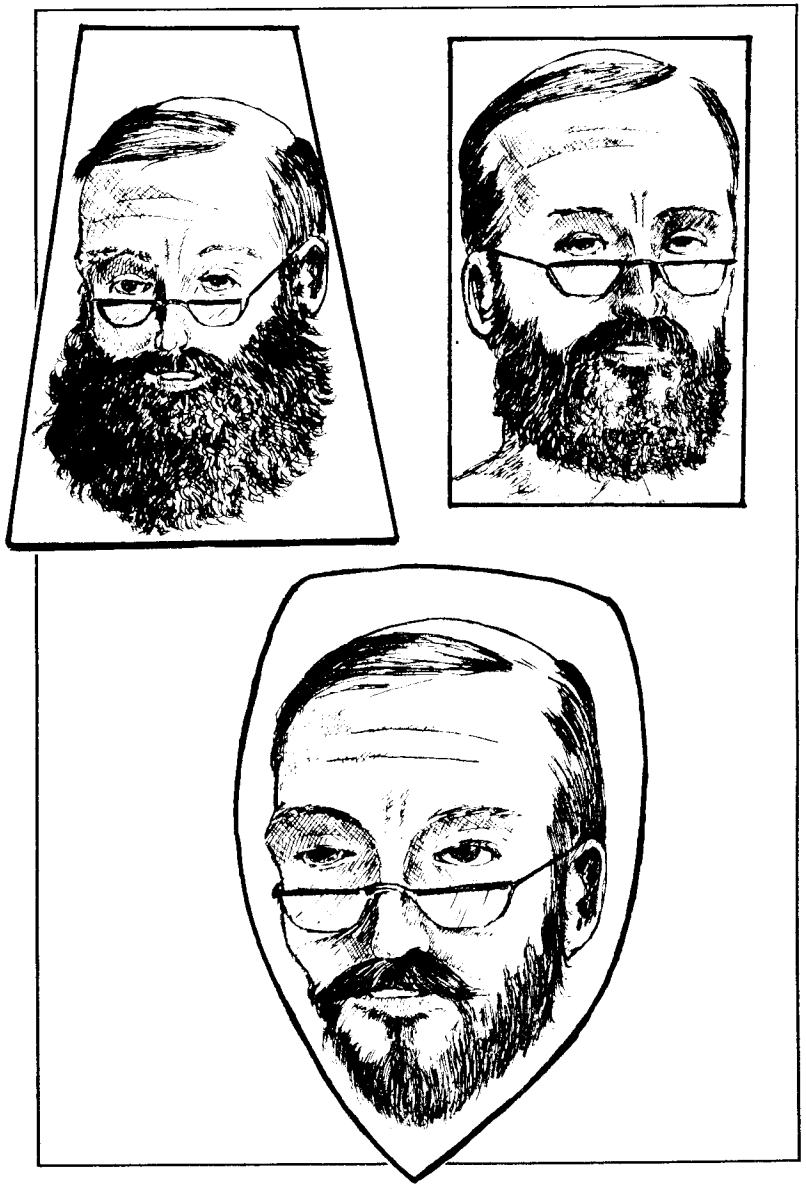


***Illustration* 30.** Three common beard shapes. Note that apart from the beards, the faces are the same.

self-contained society withdrawn from the mainstream of life, where students and faculty alike can pretend to be anyone they wish. The campus atmosphere allows them to assume just about any identity. You see a lot of beards on college campuses. Among the most common styles are these three:

- Trapezoid.
- Vertical rectangle.
- Spade.

Study the drawings in Illustration 30. In each case, you will see that the beard merely exaggerates the contours of the face. It does not change the face. The important thing to remember, as we address in chapter 8, is that terrorists are human beings and are subject to the same idiosyncrasies as the rest of us. When they choose a beard style, it is likely to be that of some personality they admire.

So practice looking at your bearded friends. It is especially helpful if you knew a given individual before and after he grew the beard, for obvious reasons. When you have exhausted your supply of beards among your friends, the best place to find more is a college campus.

At this point, we are ready to toss out a myth. Many people understandably believe that a beard serves as a mask, hiding the lower half of the wearer's face. ("I couldn't see his face, officer, he was wearing a beard.") Nonsense. It takes practice and practice takes time, but you can train yourself to see through beards to the facial contours underneath if you are willing to invest the time and effort necessary. There is no better moment to start than right now. Examine each of the faces in Illustration 31 and the photographs that follow. Look at the contours of the head down to the neck. You can still make out cer-

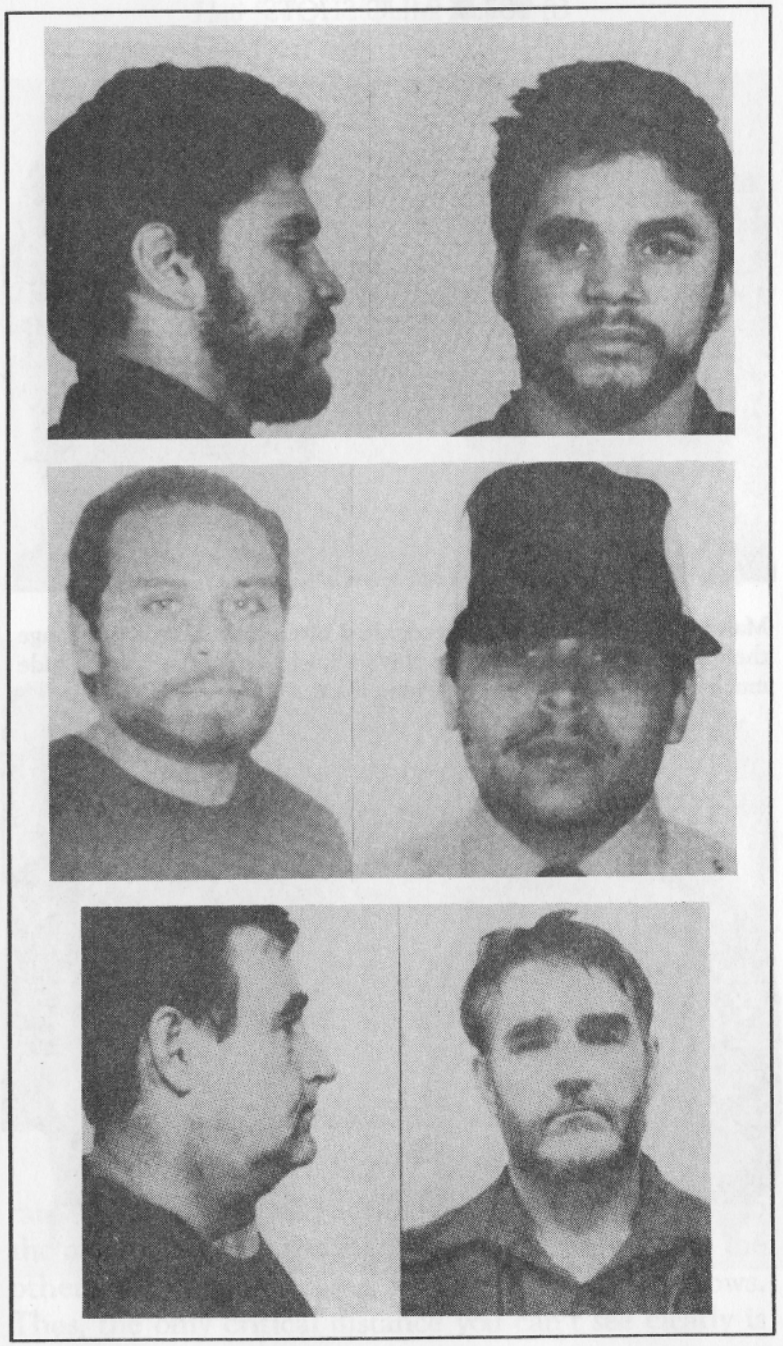
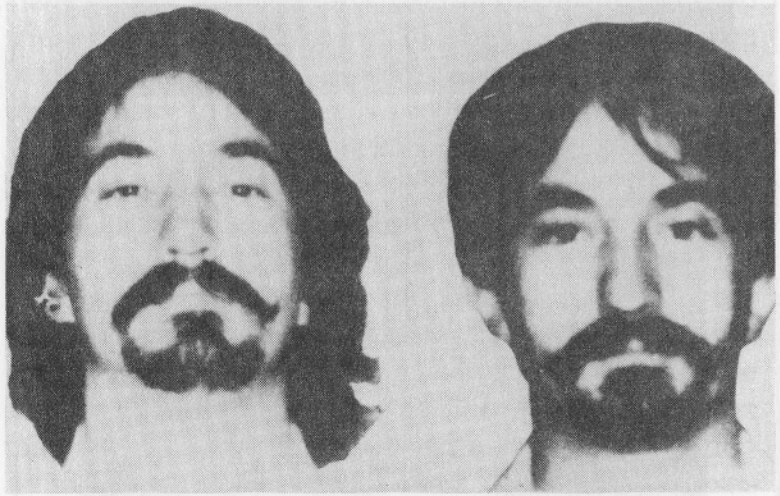


***Illustration* 31. Most beards hide very little, as these FBI posters demonstrate.**

Males who don't wish to be recognized often grow beards to change their looks, but, as these mug shots show, beards really don't hide much once you learn to look beyond them.



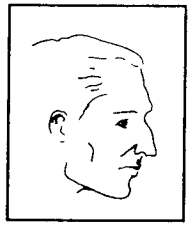
tain distances, such as that from the bottom of the nose to the mouth, between the eyes, from one cheekbone to the other, and, in some cases, from hairline to eyebrows. Thus, the only critical distance you can't see clearly is

from the bottom of the mouth to the bottom of the chin. But you can estimate it pretty well by gauging the flow of the lines from the cheekbones downward. Also, the reflection of light off the skin will show through many, if not most, beards—except the thickest and blackest. This gives you an image—a blurred but nevertheless valuable image—of the jaw line.

Try it. You may find that pretty soon you will get very good at it.

CHAPTER 8

Unmasking Terrorists



Up to this point, we have concerned ourselves with theory and isolated concepts—how to remember faces or how headgear and facial hair can change one's appearance. We have concentrated on impersonal shapes and a few faces that illustrate specific points under discussion. Now, however, we are ready to pool our new knowledge and put it to practical use. For this we need concrete examples. The best place to find such examples is within a loosely knit criminal fabric we call terrorism.

Terrorists, by the very nature of their calling, are inclined—if not required—to hide their identities behind disguises, thus providing us with a wealth of case studies and a constant challenge. Also, they provide us with a sense of purpose because they have identified the rest of us as "the enemy," even those of us who have no political clout. We all have a vested interest in avoiding being blown to bits or machine-gunned in an airport or supermarket merely because we are presumed to be part of the

capitalist/industrialist/imperialist establishment. A further reason to use terrorists to test our observation skills is the likelihood that there will always be terrorists in our midst.

We are seeing that now in the United States. The Vietnam War is fading into history (having started before most Americans alive today were out of diapers). The Iron Curtain is becoming a memory. The South African government is taking steps to end apartheid and thereby lessening the urgency for continued divestiture agitation. The alphabet-soup groups that embraced these causes are being replaced by other groups with different causes—animal rights, abortion (pro and con), the ecology, nuclear energy, prisoners' rights, and others with nineties nomenclature, ecoterrorism, narcoterrorism, etc.

WHO ARE THESE TERRORISTS?

What types of people become terrorists? Basically, there are three groups:

- The underground leaders who do the planning and generally oversee the violence from behind the scenes, taking few if any chances on direct confrontation with law enforcement.
- The underground warriors who engage in physical violence, using firearms, explosives, and other destructive devices, as well as disguises. These activities involve a high risk of danger.
- The above-ground drones who agitate openly, resist passively, and often purposely get themselves arrested to gain a forum for their ideas. They are the most numerous element, forming the crowds of single-issue protesters you see in front of government buildings, abortion clinics, and other demonstration sites.

We are not really concerned with the third group, which often consists of well-intentioned but poorly informed people who operate for the most part within the laws. The first and second groups are of more interest to law-enforcement agencies. Among the first group in particular, you often find people whose commitment is not to the single issue behind any given terrorist act, but to the total destruction of "the system." For this reason you may find the same people free-floating from Colorado today (animal rights) to Texas or Florida tomorrow (capital punishment) to the California coastline (ecology) next week to Three Mile Island (nuclear energy), or to Chicago, Boston, or St. Louis (abortion) week after next. Most of these situations have the potential for violence on a grand scale, involving not only destruction of property but loss of life.

For this reason, it is imperative that all of us—not just the police or the military—be able to recognize these people wherever they go and however they attempt to disguise their identity. The new radicals aren't playing innocent kindergarten games with us. Witness some of the bombing incidents listed in *Hydra of Carnage* (Uri Ra'anan et al., Lexington Books, 1986). All took place in the eighties in the New York and Washington, D.C. areas alone:

- IBM (twice)
- Motorola
- Honeywell
- General Electric
- Israeli Aircraft Industries
- Union Carbide
- New York FBI offices
- National War College
- Army and Navy Reserve centers

- Navy Recruitment Center
- New York Police Benevolent Association
- U.S. Capitol building

Who are some of these people who free-float across the land (and sometimes beyond its borders) planning and directing a bombing in Washington, a bank robbery in California, a fire in New England, a "spontaneous protest" in your hometown, always changing their appearance, never seeming to sleep, always plotting and planning?

Admittedly, their membership changes. Terrorism is, by and large, a short-lived career. Of those who dominated the stage in the sixties, seventies, and early eighties, some are dead, in prison, or in voluntary exile. Still others, however, are very much with us. The basic principle for recognizing them and for seeing beyond the distracters they use is to concentrate on the areas of their faces that cannot be changed short of plastic surgery. These distracters, as we have seen, tend to fall into four groups: eyeglasses, cosmetics, clothing, and hair.

CASE STUDIES

Marilyn Jean Buck

For instructional purposes, the best individual to begin with is Marilyn Jean Buck because she uses all of these distracters with great skill. Buck is in prison now, having been captured at Dobbs Ferry, New York, in 1985. She was convicted of driving the getaway car during the Brinks armored car robbery at Nyack, New York, several years earlier, where two police officers were killed. That she was able to avoid arrest during this period is certainly due in part to her mastery of the art of disguise.

The FBI put out a wanted flier on her, showing several photographs taken at different periods of her life. In no two of them does she appear to be the same person. She projects, with equal ease, the image of scrubwoman, pretty secretary, gun moll, housewife, and hippie. She accomplishes this through practiced use of distracters. However, if we examine her face carefully, we see several irregularities she can't cover up.

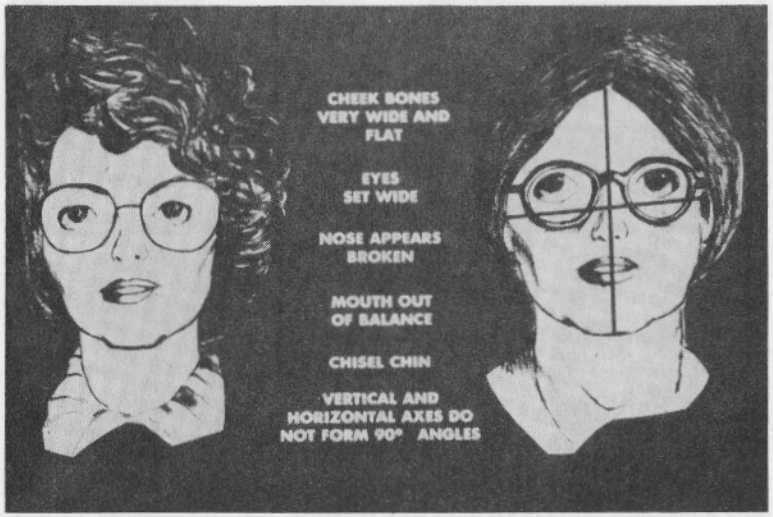
Her eyes are extraordinarily far apart, perhaps as much as one and one-half eye lengths, and her wide cheekbones give her face a flat appearance. Additionally, her left eye is heavily pigmented in blue and brown, and her sight is poor enough to require glasses. But what style of eyeglasses does she wear? Careful observation will show that she

This FBI poster shows various photographs of Marilyn Jean Buck in some of the disguises she uses.

chooses lenses and frames that are either far too large or small for her face. The former tend to make her face appear thinner and less flat, whereas the smaller frames draw her eyes together.

Now look at her nose. It appears to have been pounded by somebody's fist, leaving it lopsided, with nostrils of different sizes. Buck's mouth is also lopsided, being thicker and heavier on the right side. Her chin is sharp, angular, and juts forward.

Buck's most important feature, however, is the fact that her whole face is lopsided. In an earlier chapter we observed that nobody's face is in perfect balance. Buck's is much heavier on the right, so that the vertical and horizontal axes do not form right angles. Instead, they form adjacent angles of eighty-five and ninety-five degrees,



Despite Buck's success with disguises, her face is quite distinctive, involving prominent imbalances and basic bone structure. None of her disguises would fool a trained observer.

which is enough to be observed by anyone. The point is, her face is a mass of irregularities involving basic bone structure, so there isn't a great deal she can do about it.

Melvin Edward Mays

Melvin Edward Mays is a member of the El-Rukn street gang of Chicago, which made direct offers of cooperation with Mu'ammar Qaddafi that led to the arrest of some of its members. According to the FBI flyer, Mays is being sought in connection with the purchase of an explosive device, is believed to possess automatic weapons, is a known narcotics user, and is to be considered armed and dangerous. His face presents several irregularities that make it easy to remember (Illustration 32):

- A high forehead with a widow's peak.
- Irregular eyebrows that show an unusual curve in the middle of each.
- Heavily hooded eyes.
- Ears flat against the head.
- A long distance from nose to mouth. (Remember to look past facial hair.)
- Thick lips.
- Hollow cheeks.
- A chin that is longer than it appears. (Again, look beyond the facial hair.)

What we have seen in the examination of these two faces is that once we have passed beyond the basic elements (head shape and critical distances), any human face can have an almost infinite number of variables because no face is in perfect balance. When we have identified four, five, or six of these variables, we probably have enough information so that whatever face we encounter is not likely to match many others anywhere on Earth.

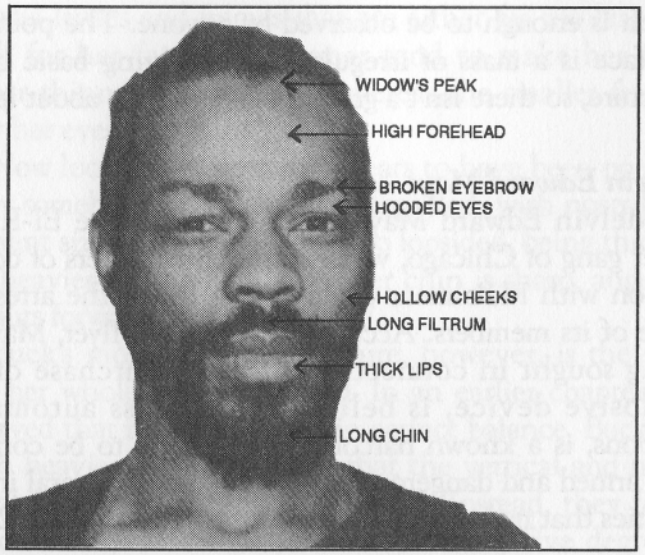


Illustration 32. **Note that what appears to be a very ordinary face has a lot of dead giveaways.**

Joanne Deborah Chesimard

To illustrate this point, let's look at the face of Joanne Deborah Chesimard, convicted of the murder of a police officer and sentenced to life in prison, from which she escaped. Look at Illustration 33. You would say that her face might easily blend into any crowd. Certainly she is clever enough to disguise it in all of the ways we have examined so far.

Yet some of her features cannot be changed short of plastic surgery, and they enable us to spot her anywhere. Take her forehead. Admittedly, the forehead can be an unreliable identity tag because of variations in hair styling, but in Chesimard's case it's fairly valid because she doesn't bother to disguise its most prominent feature, a pronounced widow's peak far to the left of center. The

Illustration 33. **Joanne Chesimard from an FBI mug shot.**

result is an obvious imbalance.

Now look at her eyes. The left one is heavily hooded, whereas the right is not. Another imbalance. Next note that her jaw line on the left side bows inward from the gonial angle to the chin, forming a noticeable indentation that does not occur on the other side. Finally, her upper lip is considerably longer from side to side than the lower lip. This is somewhat unusual in blacks of Central, West, or South African ancestry.

In brief, Joanne Chesimard's face is a bundle of irregularities. She can distract our attention from them, but she cannot hide them. The amount of plastic surgery needed to change them would strain a large purse and take a great deal of time. So she is stuck with them (Illustration 34).

Mutulu Shakur & Cheri Laverne Dalton

A pair of terrorists associated with the Black Liberation Army (BLA), who participated in the Nyack armored car

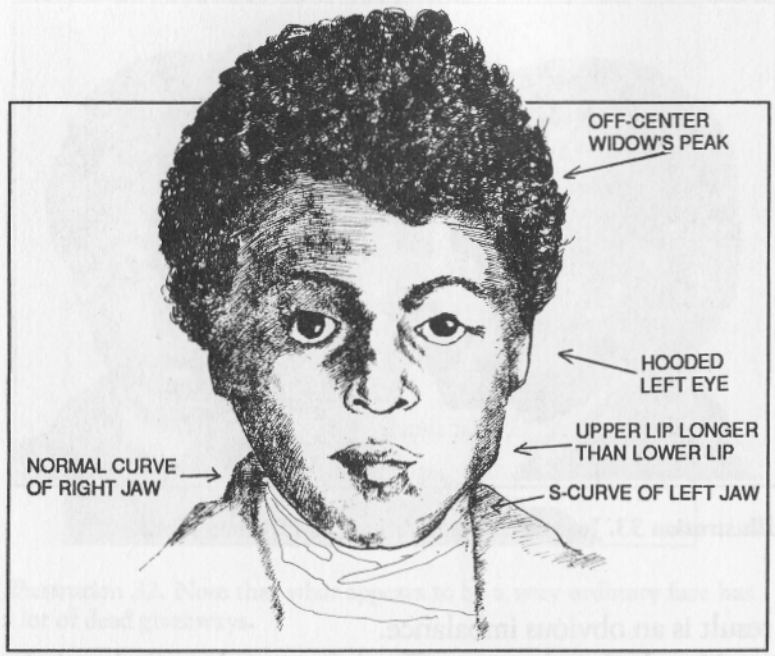


***Illustration* 34. A detailed look at Joanne Chesimard's features.**

robbery and who have left a trail of violence and armed robbery, are Mutulu Shakur (born Jeral Williams) and his girlfriend Cheri Laverne Dalton. Shakur has been captured and is now in prison. Dalton remains at large and is believed to be living in the Los Angeles area where she continues to receive support and shelter from BLA. She is under indictment for violations of the Racketeer-Influenced and Corrupt Organizations (RICO) laws, armed robbery, obstruction of justice, bank robbery killings, interfering with interstate commerce, and aiding and abetting in the commission of a felony. She should be considered armed and dangerous and should not be approached except by law-enforcement professionals.

As with many other terrorists, she sometimes wears

large dark glasses—too large for her face, in fact.

But these do not hide features such as her forehead, which is narrow and arched; her eyebrows, which are fairly thick for a female; her nose, which has wide, thick

Cheri Laverne Dalton—under indictment for RICO violations, armed robbery, and aiding and abetting in the commission of a felony—is still at large. She often wears large-framed glasses to obstruct her face.

***Illustration* 35. Cheri Laverne Dalton (Reproduced courtesy of Law Enforcement Television Network).**

wings and nostrils that are straight across at the base; her cheekbones, which are prominent; and her chin, which is perfectly rounded (Illustration 35).

Thomas W. & Carol Ann Manning

Finally, let's take a look at Thomas W. and Carol Ann Manning. Before they were captured in Norfolk, Virginia, in 1986, they were able to elude authorities in Ohio, where they had been living, and to lead an inconspicuous life for a couple of years by following the advice given by Latin American terrorist Carlos Marighella in his *Minimanual of the Urban Guerrilla.* This couple had a particularly compelling reason to remain uncaptured. They were both under indictment at that time for the murder of New Jersey Trooper Philip Lamonaco, and authorities there had offered a $100,000 reward for information leading to their capture.

Thomas Manning used several devices to disguise his

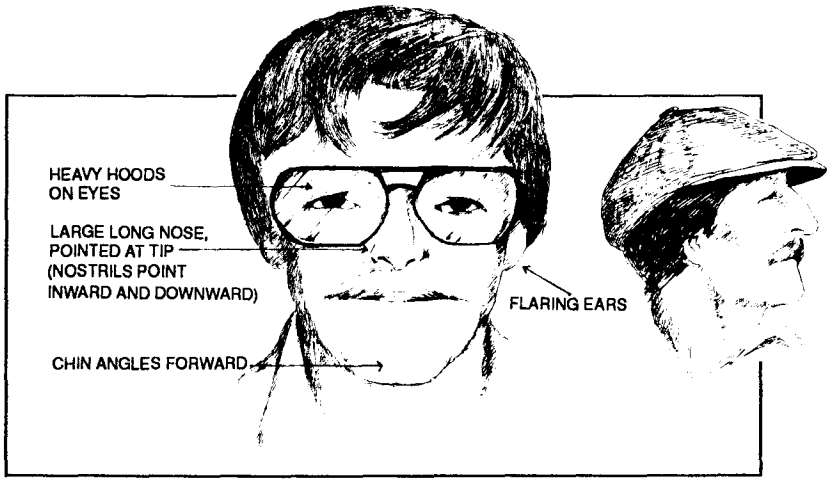


***Illustration* 36. Thomas W. Manning**

face. He hid his forehead under various hair styles, as well as a sporting cap; he wore large eyeglasses, and he varied the size and shape of his mustache. Nevertheless, he has at least five features that, taken together, serve as useful identity tags (Illustration 36).

- His eyelids are covered by heavy hoods.
- His nose is long, large, and pointed at the tip.
- His nostrils point inward and downward.
- His ears flare noticeably, even with long hair.
- His chin points forward like the blade of a block plane, as does Marilyn Buck's.

His wife, Carol Ann, has three features that serve to distinguish her appearance (Illustration 37):

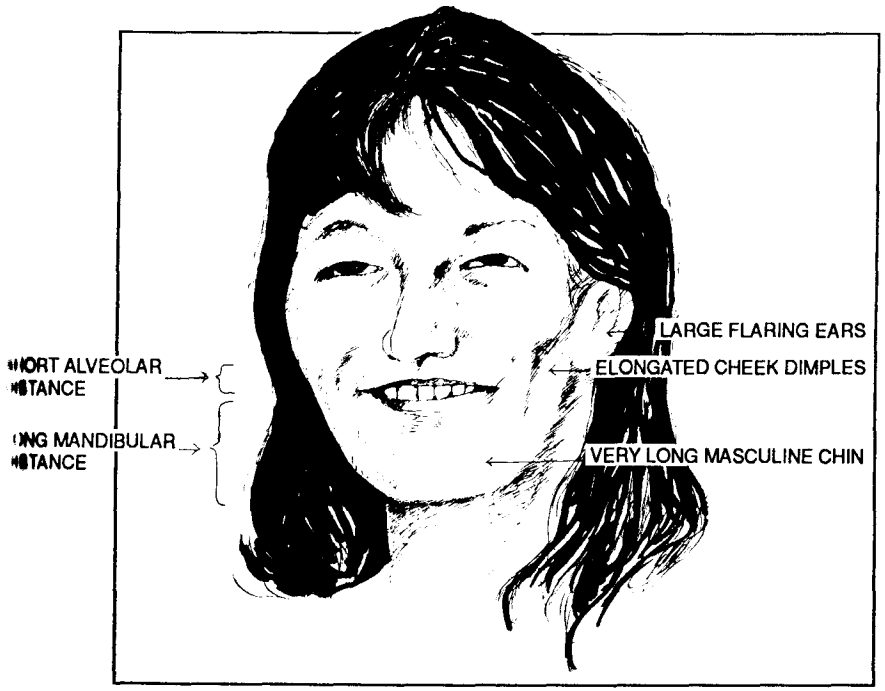


***Illustration* 37. Carol Ann Manning**

- Her ears are large and flaring.
- She has elongated cheek dimples, accentuated when she smiles.
- Most important, she has a most unusual distance relationship between the base of her nose and the bottom of her chin.

The area between the mouth and the nose, called the alveolar process, usually is about one-third of the total distance from the base of the nose to the bottom of the chin in females, whereas in males it is normally only about one-fourth of the distance (El Najjar, *Forensic Anthropology*). Even a quick glance at Carol Ann Manning's face reveals that the distance from the base of her nose to her mouth is, as with males, only about one-fourth of the distance from the base of the nose to the bottom of the chin. In other words, the height of the mandible, or lower jaw, is considerably higher than it is in most females.

CHAPTER 9

Sharpening Your Skills

You are now ready to begin a program of self-instruction that—if followed with care, regularity, and seriousness of purpose—will guarantee you vastly improved observation skills. You have examined the various impediments to remembering faces, the structure of the head and its parts, irregularities, distracters, clothing, and the faces of several well-known terrorists who are good at disguises. You have acquired the basic tools necessary for your personalized practicum.

We say "personalized" because that is exactly what it will be: your own scheme, worked out over time, that best suits your needs, schedule, and temperament. Since no two people are alike in this respect, the ideal teaching structure would involve a one-on-one association between instructor and pupil. Since that is impossible, the next best thing is an organized plan to apply the knowledge you have acquired. For this you need only a notebook or steno pad.

During World War II, the training officers of the Army Air Corps (later renamed the Air Force) recognized the need for a new method of teaching aircraft identification. The very nature of battle conditions imposed terribly demanding time restrictions. A gunner or fighter pilot had to be able to distinguish between friendly and enemy aircraft in a split second, in flight when the combined speeds of any two craft could reach several hundred miles per hour.

Consequently, the revised instructional method involved long and intensive sessions in which the trainees were exposed to a series of slide transparencies flashed on a screen. At first the exposures were fairly lengthy, two seconds or more. Gradually, the time was reduced until the image lasted only the tiniest fraction of a second. Soldiers who had previously been unable to distinguish between a kite and a balloon found themselves able to identify a P-47 or a Messerschmitt from their silhouettes in the incredibly short exposures of one-fiftieth or even one-hundredth of a second.

The system worked and no doubt can be credited with saving countless U.S. lives. It is also related to a major technique for teaching speed-reading and serves as a model for the method to be suggested here. We noted in chapter 1 that a major impediment to the observation of faces is the reading habits we formed in school, which slow down the reading speed of many people to a pace not much faster than talking. Those who break away from this mold develop the ability to read whole lines (or more) at a single glance, and psychological tests reveal that, in spite of the increased speed, they actually retain more.

The program you will develop here combines both of these features: increased speed of visual perception and broadened field of vision. The scheme we suggest here is

only a model. You can change it in any way that suits your needs or your personality, as long as you bear in mind that the result must be orderly and disciplined, and that you must commit yourself to regular practice.

For starters, pick out a face, preferably the face of someone you know well. Next, draw a line down the center of page one in your notebook. Look at the bridge of the nose and try to determine the general shape of the head. Remember the nine basic shapes we discussed in chapter 3? Pick one that your friend's face reminds you of (triangle, square, oblong, bullet, egg). Write this form in the left-hand column.

Keep looking at the bridge of the nose and try to estimate your five critical distances (see chapter 3). Classify each as long, medium, or short and jot them down in the right-hand column. This gives you the basic framework for the whole face.

Use your observations to write a brief description of each feature: forehead, eyes, nose, ears, mouth, and chin. Also note facial lines, hair style, eyeglasses, and head jewelry such as earrings. Remember to include any distinguishing marks such as scars, warts, moles, or birthmarks.

At this point, you proceed to a higher level. You look for something you haven't noticed before. It is undoubtedly there if you concentrate. Perhaps this friend of yours has a faint white scar on the chin from a cut sustained in a childhood roller-skating accident. It has been there all along, but you never saw it before for the reasons we talked about at the beginning of this book. Write this feature down, also in the right-hand column.

Now go to the imbalances. You saw in chapter 4 that no face is in perfect balance. Use this knowledge to your advantage. That faint white scar (or mole, chipped tooth, wart, or what have you) is not precisely in the center of

the face. Furthermore, one side of your friend's face is probably heavier than the other. Surely you have heard of people, especially actors and other public personalities, who always insist on being photographed from their "best" side. Every face has at least one area of imbalance. Most have more than one. We learned that one eye is sometimes higher than the other. One ear may flare more than the other. Chins are often lopsided. Foreheads often recede more on one side than the other.

You are now ready for page two. Repeat the above exercise with somebody else you know well. Keep this up every day for a week or however long it takes before you are comfortable taking on something more difficult.

By now your awareness of facial structures has been raised greatly. You are seeing all faces in a new light. You are ready for the next step. Repeat the exercise described above with the faces of strangers. Do it conscientiously and carefully every day for another week or so.

Up to this point, you have been able to take all the time you want. That is as it should be because you need to master the details of faces first. Make haste slowly.

It's time to go under the clock. This always applies a certain psychological pressure, no matter how generous the time limit may be. So don't push yourself too much. Generally, people get bored staring at a face for as long as sixty seconds. Try for thirty seconds, as long as you are comfortable with it. Then gradually reduce your time limit, five seconds per day, until you reach a ten-second visual exposure to the face you wish to remember.

At some point between ten seconds and zero, you are going to reach a plateau beyond which it will seem impossible to sharpen your skills further. That is not the case, however. Experiments with subliminal advertising messages prove that people can be behavior-conditioned by

words presented too fast to be consciously perceived at the time. That is the key to the concept that concerns us here: with practice, anyone can develop the knack of perceiving enough at a single glance to give a good—even highly accurate—description of a face.

The remaining principle involves retention and recall. We have so far concerned ourselves with writing the description immediately after the viewing. Now we will increase the interval between those two functions. As with the viewing, go slowly and gradually expand that interval so that you can take a quick glance at a face and describe all its essentials twenty-four hours later. Remember, when something happens, you may get only a brief glance, and you want to make the most of it.

Study the following questionnaire. It contains most of the terms and ideas you have already learned. Using this form as a model, prepare one sheet of paper for each of the nine faces in Illustration 38. Study the faces one at a time. Then answer the questions as best you can and, on the back, give a written statement of anything not covered by the form that you think is important.

QUESTIONNAIRE

General:

Race_____ Age _____ Height _____

Weight_____ Eye color_____ Hair color_____

Build:

Average _____ Slender_____ Skinny_____ Muscular_____

Wiry _____ Stocky _____ Moderately fat _____ Obese _____

(For females) Average bust_____ Heavy bust_____

Small bust _____ Flat chest _____

Facial structure and basic features:

Shape of face: Oval _____ Round_____ Square_____ Oblong_____

Heart-shaped_____ Egg-shaped_____ Bullet-head_____ Triangular _____

Other (describe)_____

Forehead: High_____ Broad _____ Narrow_____ Receding _____

Protruding_____ Smooth_____ Wrinkled_____

Other (describe) _____

Nose: (profile) Average _____ Classical Roman _____ Aquiline_____

Bulbous_____ Celtic_____ Negroid _____

Other (describe) _____

(front view) Levantine_____ East African_____ West African_____

Oriental _____ Celtic_____ Other (describe) _____

Eyes: (profile) Average _____ Protruding_____ Deep set_____

(front view) Average _____ Close set_____ Wide set_____ Squinty _____

Bulging_____ Partly hooded_____ Heavy-lidded _____ Fully hooded _____

Other (describe)_____

Eyebrows: Thick _____ Sparse_____ Bushy _____ Narrow_____

Straight_____ Arched_____ Grow together_____

Ears: Average_____ Large_____ Small _____ Flaring _____

Laid flat against head_____ Cauliflower _____

Mouth width: Average _____ Wide _____ Small _____

Distance from base of nose to upper lip: Average _____ Long_____ Short____

Filtrum: Wide_____ Narrow _____ Deep _____ Shallow_____

Lips: (upper) Average _____ Thick _____ Thin_____

Does upper lip overhang lower lip? Yes _____ No_____

(lower) Average _____ Thick_____ Thin_____

Does lower lip overhang chin? Yes_____ No_____

Is upper lip heavier than lower lip? Yes ____ No____ About the same ____

Chin: Average_____ Protruding_____ Receding_____ Squared_____

Cleft_____ Rounded_____ Pointed_____ Dimpled_____ Double chin ____

Jaw: Average____ Angular____ Lantern____ Off-center (asymmetrical)____

Facial muscles:

Mouth: (orbicularis oris or "kissing muscle") Smooth_____

Pronounced_____ Bulging _____

Jaw: (masseter or "chewing muscle") Flat_____ Rounded_____ Bulging_____

Facial lines:

None_____ Around mouth_____ Around eyes (crow's-feet)_____

On forehead_____ On side of face_____

Shallow_____ Deep_____

Neck muscles:

Heavy_____ Light_____ Not observable_____

Facial scars or irregularities:

1. Scars?_____ Location _____ Size _____
2. Warts?_____ Location _____

Describe _____

3. Moles?_____ Location _____

Describe _____

4. Cysts?_____ Location _____

Describe _____

5. Broken nose?____ Broken cheek bone?____ Scar tissue on brow ridge?____

Skin color:

Pale white____ Tanned white ____ Weather-beaten white_____

Deep black____ Brown____ Light brown_____ Coffee-with-cream_____

Copper _____ Yellow_____ Ruddy _____ Pink _____ Freckles_____

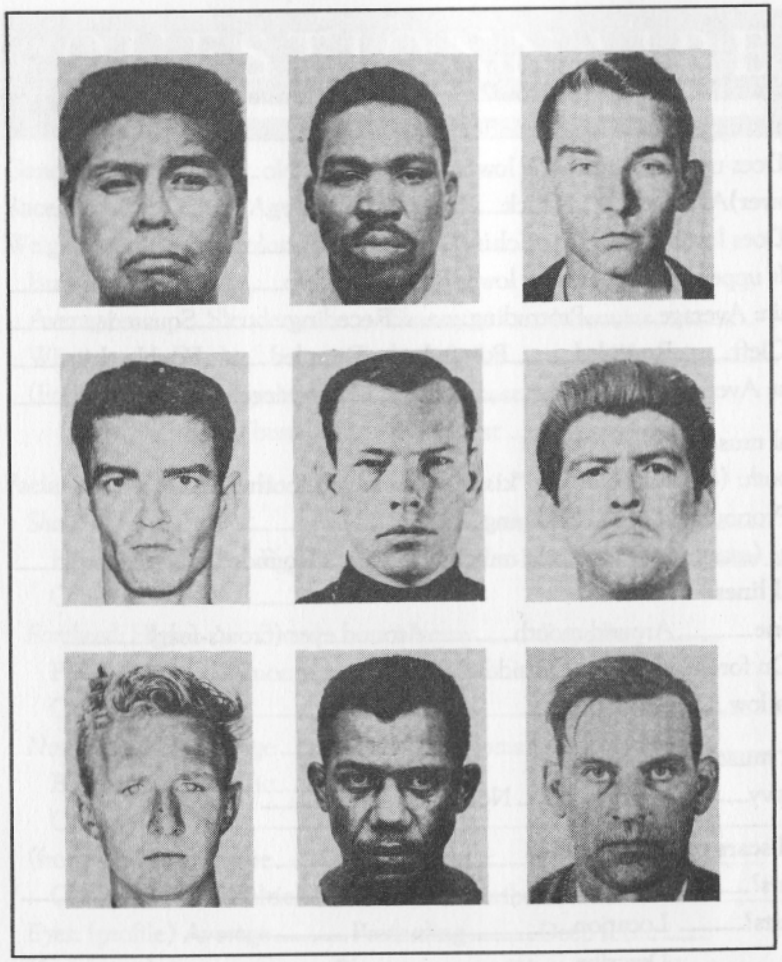


Illustration 38. Questionnaire on pages 104-105 will help the reader practice observation skills. Complete one questionnaire for each of these examples.

CHAPTER 10

Notes on Interviewing Techniques

By now you have acquired a broad and, one hopes, accurate knowledge of the information an investigator needs to form a precise image of a human face. In brief, you know what sort of questions to ask. But knowing the questions is only half the battle. The other half is knowing how to ask them and in what order. Getting a good facial description during an interview places demands on and tests the skills of the most experienced investigator. These problems tend to fall into three categories: personal, physiological, and sociological.

PERSONAL OBSTACLES

The interviewer's first obligation is to bear in mind that nobody can suffer a crime or witness one and remain totally unaffected. Most are angry, shocked, humiliated, terrified, or disgusted to one degree or another. All crime is degrading, so that victims or

immediate witnesses often feel dirty, cowardly, helpless, ineffectual, or ashamed.

Your first duty, as an investigator and a fellow human being, is to bear in mind that you are dealing with somebody whose sense of self-worth has been diminished, often gravely. Your success as an interviewer will depend in large measure on your ability to make the witness feel better about him/herself. This is especially true in victims of aggravated assault or rape, whose irrational sense of guilt often makes them subconsciously wish to forget the offender's face altogether.

Much, of course, depends on whether the witness and the victim are the same person. Yet even here one finds no hard and fast rules. For example, a naturally high-strung wife who sees her husband stabbed might be a less reliable witness than the husband himself if he is a laid-back type and survives to describe his attacker. Generally speaking, however, the rule of thumb is the more detached a witness is from physical or emotional involvement in a confrontation, the more dispassionate and reliable his or her testimony is likely to be.

For this reason, it has been my custom to spend some time getting to know the witness, talking casually about things unrelated to the crime itself, such as hobbies, children, schools, sports, or whatever may inspire interest. This should be done in a friendly, low-key manner. Nothing will cause a witness, especially a shy or embarrassed one, to withdraw into a shell faster than an interviewer who comes on like a used-car salesman. British investigators sometimes spend several hours apparently socializing with a witness before getting down to business. Though it is possible to overdo the tea-and-crumpets routine, it is safe to assume that a reasonable amount of time invested in getting acquainted

allows the witness to unbend a bit and pays big dividends. It also gives the interviewer a chance to underscore that the witness—especially a victim/witness—is not to blame. The offender is to blame. Accusatory questions ("How come you were wearing a black leather miniskirt in a waterfront bar at 2:00 A.M.?") do nothing to get the description you want. The victims/witnesses feel bad enough already. They don't need to have their noses rubbed in what they perceive as their own inadequacy by an insensitive interviewer.

A parallel concern, also related to the idea of making the witnesses comfortable, has to do with physical surroundings. As a rule of thumb, the closer witnesses are to their own turf, the more relaxed they will feel. Clearly, a police station or security-department office is least likely to help the witness relax, yet those are most often the settings for post-incident interviews. In the first place, the victims/witnesses are completely away from familiar surroundings and in the presence of authority, often uniformed. This does nothing for their sense of control and puts them on guard. In the second place, it is the witnesses who are being asked to cooperate by helping the authorities, either private security or police, and it may seem a bit arrogant when they are asked to "drop by the station," as if they were suspects instead of willing witnesses.

At the other extreme, the witness' own dwelling generally (but not always) provides the most reassuring, reinforcing environment, and for that reason, it can help produce the most accurate descriptions. Investigators should be aware of the limitations and risks involved here. First, the witness' home turf may pose a danger to the investigator that is out of proportion to the anticipated benefit. Second, a question of profes-

sionalism may arise, especially with witnesses of the opposite sex. The last thing any police or security department needs is to be accused of sexual harassment or slapped with a lawsuit based on alleged sexual improprieties. Thus, the interviewer should be accompanied by an associate in any case involving a lone witness of the opposite sex in his/her dwelling. If this is not practical, then another location should be chosen.

A compromise arrangement involving a neutral site is often the best choice. It could be a restaurant, coffee shop, recreational area, school, or other public building. It can be a church meeting hall, if that is where the witness feels most comfortable (with the knowledge and consent of the clergyman in charge). The bottom line is, the interviewer should choose the lightest, airiest, most pleasant surroundings that still afford the privacy both parties need. Sometimes this is not possible. The author has done forensic drawings from descriptions given in jails, police stations, basements, hospital emergency rooms, dimly lit janitors' supply rooms, cars, and even outdoors. But none of these locations is conducive to accurate drawing and so are to be avoided.

A word of caution about places of employment. Employers are occasionally ungracious about interviews conducted in their place of business. This in itself makes the witness ill at ease and can ruin an otherwise productive interview. In addition, such interviews can arouse inappropriate curiosity among fellow employees. Finally, in some cases a witness cannot give an interview on company time without facing loss of pay. Thus, in many instances a witness' place of employment is not really his or her own turf, nor is it even neutral. Unless all conditions are extremely favorable, it should be avoided.

PHYSIOLOGICAL OBSTACLES

The second thing any interviewer must recognize is that a crime victim/witness has undergone some physiological and chemical changes that profoundly affect his/her visual perception of what happened and how it will be reported. The extent of this biochemical impact varies from one individual to another. In some phlegmatic types, it may appear scarcely to operate at all. More excitable types, on the other hand, may be reduced to hysterics or even require sedation. (For a more complete treatment of this subject, see "Sudden Fear and Witness Reliability" by Douglas P. Hinkle and David Malawista, in *Law and Order*, July 1987.)

In chapter 1 we examined the basic workings of this reaction, known as the fight-or-flight syndrome. We recall its two primary effects: it deflects and narrows vision, and it completely scrambles the order in which the viewer perceives and reports the data requested by the interviewer. It also does nothing to help the witness assign priorities intelligently, resulting in a better description of a suspect's horn-rimmed glasses than his cleft chin. Clearly, the glasses are discardable; the chin is not.

PERSONAL/SOCIOLOGICAL OBSTACLES

The physiological factors related to or proceeding from the fight-or-flight syndrome are complicated by others of a personal and sociological nature. These tend to surface when the victim/witness is asked to recount what happened or to describe the offender.

Many personal histories include traditions that conflict openly with the aims of the police or the interests of society. Often these create antagonism or reluctance that

opposes cooperation. An extreme example would be the Mafia code of *omerta*, which prohibits even a dying victim from identifying his killer. Many people are reluctant to report, describe, or throw suspicion on people who are close to them. This antagonism proceeds from three basic sources: fear, shame, and resentment. A witness who is also the crime victim is subject to all three.

The fear is the basic fear of all authority, especially the authority of the police. This is especially prevalent among minorities and foreigners, whose experience with civil authorities in other places and times might have been less than heartwarming. The fact is many people believe that it is somehow morally reprehensible to give information to the police, even when they are the victim.

Shame is another powerful factor. Anyone criminally victimized has been forced to do something against his or her will. People sometimes cry openly, not out of cowardice, but out of frustration at being unable to react physically in defense of their person or property. This shame blends with anger, which in turn results in what amounts to a transfer of resentment, often to the law-enforcement community that didn't protect them from the criminal.

The important thing to keep in mind is that shame and resentment-transfer are unavoidable inhibitors to the communication of memory from victim to investigator.

Still another inhibitor to communication is reluctance, which is often based on the fear of reprisal. It is frequently a powerful inhibitor in rape cases, where offenders routinely threaten their victims with death or disfigurement if they report the incident.

Beyond that, victims/witnesses are often reluctant to trust their own impressions. They are dangerously susceptible to suggestion, which is why standard police procedure involves keeping multiple witnesses from talking to

one another until they have been interviewed. Victims usually stare at the weapon and not the face of the perpetrator, so it is often easy to sow the seeds of uncertainty regarding appearances—a tactic defense attorneys use to full advantage.

Reluctance on the part of a victim/witness may be the result of awe. In all societies, from the most primitive to the most sophisticated, the artist has traditionally been accorded the status of magician, and in some societies, he is at least as important as the medicine man. For that reason, many victims/witnesses are reluctant to ask a police artist to change the sketch. Because they are overawed, they often agree to images that are incorrect.

As if these were not enough, the problem of information retrieval following a crime-related trauma is further complicated by difficulty of expression, even for articulate victims. Victims are often confused and disoriented, no matter how orderly their thought processes might be ordinarily. Under this type of stress, they oftentimes are unable to distinguish between important and unimportant things.

SUMMARY

We have seen that victims of crime, especially violent crime, suffer in varying degrees from what—for want of a better term—we may call memory displacement. There are many reasons for this. Among the more important ones is the fact that the law-enforcement officer, by virtue of the profession, inspires a certain awe—even fear—in the very victim whose problem the officer is trying to solve. Ironic as it may seem, the nature of the public image tends to work against the purpose of the job.

A police artist or security investigator is at an even

greater disadvantage than the detective. The artist or investigator is unavoidably an authority figure and a specialist, which implies a certain level of technical training. This only amplifies the authority-figure image, and often distances them from many crime victims, who feel at an educational disadvantage.

Consequently, witnesses are often reluctant to describe a face to the investigator. Unsure of their impressions, they are afraid of being held accountable for their inaccuracies. They are also sometimes afraid of reprisal and, in those instances, may refuse to give any description at all—especially if they fear for the safety of loved ones.

But the greatest problem the interviewer has with witnesses is in convincing them that they must be critical and insist that the sketch/description be accurate. Many victims feel that when the artist puts a line on paper, it must be right. Unlike the creative artist, the forensic artist depends as much on his eraser as his pencil. The witness has to be convinced of this before a satisfactory drawing can be executed.

I once did a worthless drawing of a suspect from a description given by a seventy-eight-year-old rape victim. She absolutely refused to correct a single line or shadow, despite the pleading of her daughter and son-in-law. She was overwhelmed by the enormity of what had happened to her, by her surroundings at the sheriff's office, by the presence of men in uniform and of an honest-to-God artist, and by the inadequacy of her own educational level. The resultant drawing was, as we noted, worthless.

The point is, with many victims (if not most), the investigator must exercise a high level of courtesy and consideration. Above all, victims/witnesses who have been emotionally or physically hurt require gentle, kind treatment. The worst thing an investigator can do is make

a victim feel any more foolish, guilty, or inadequate than he/she already does. Quite aside from the human factor, that will only result in a poor description.

Two minor complications should be noted. The first involves the witness who tries to impress the investigator with the accuracy of his/her memory by creating details out of whole cloth. The second is the witness who creates a nonexistent face.

The former is fairly easily spotted after a little experience, because the witness will inevitably make contradictions. Over the course of an hour-long interview the witness will almost certainly fail to keep in mind a host of invented details, and it will soon become apparent that he/she is embroidering. This is also the case with those who invent whole faces.

Occasionally someone will invent a face and unconsciously give a description of him/herself. This soon becomes obvious. For example, a male victim once reported being raped. The description he gave of his "attacker" produced a drawing startlingly like the victim himself. Insistent questioning by police investigators disclosed that he had quarreled with his lover and was merely trying to get even.

When trying to obtain a description of a human face, you must remember that the victim is being asked to recall far more details than the sketchy descriptions we noted in chapter 1. You must exercise even greater patience than is called for in an ordinary investigation. You must give the victim more than ample time to answer questions, summon memory, and reflect. You must make allowances for emotions, reluctance, and anger. ("Where were you guys when I needed you?") Above all, you must be kind.

Selected Bibliography

Andrew, Warren. *The Anatomy of Aging in Man and Animals*. New York: Grune and Stratton, 1971.

Barcsay, Jeno. *Anatomy for the Artist*. London: Spring Books, 1963.

Brothwell, Don R. *Digging Up Bones*. London: The British Museum, 1965.

Edwards, Betty. *Drawing on the Right Side of the Brain*. Los Angeles: J.B. Tarcher. Distributed by Houghton Mifflin Co., Boston, 1979.

El-Najjar, Mahoud Y. & K.R. McWilliams, *Forensic Anthropology*. Springfield: Charles C. Thomas Publishers, 1978.

Federal Bureau of Investigation, United States Department of Justice. *Facial Identification Catalogue*. Washington, D.C. (Undated).

Gerasimov, M. M. *The Face Finder*. New York: Lippincott, 1971.

Ghiselin, Brewster. *The Creative Process*. Berkeley: University of California Press, 1952.

Gray, Henry, F. R. S. *Anatomy, Descriptive and Surgical*, with new introduction by John A. Crocco, M.D. New York: Crown Publishers, 1977.

Hinkle, Douglas P. "To See a Face." *The International Criminal Investigator*. October-December, 1985.

_____ . "Those Five Critical Distances." *Security Management: Protecting Property, People, and Assets*. January, 1986.

_____ . "How Much Do You See?" *Security Management* (ASIS). February, 1986.

_____ . "Tell Me What He Looked Like," *Law and Order*, February, 1986.

_____ and David Malawista. "Sudden Fear and Witness Reliability," *Law and Order*, July, 1987.

_____ . "Picture Perfect: Getting a Good Facial Description." *Police*, December, 1987.

_____ . "Unmasking Incognito Terrorists with Facial Imaging Skills," *Law Enforcement Technology*, September-October, 1988.

_____ . "The Shape of Things To Come," *Law Enforcement Technology*, May, 1989.

Hrdlička, Aleš. *Practical Anthropometry*. Philadelphia: Eistar Institute of Anatomy and Biology, 1938.

Nicolaides, Kimon. *The Natural Way to Draw*. Boston: Houghton Mifflin, 1941.

Oliver, Georges. *Practical Anthropology*. Springfield: Charles C. Thomas Publishers, 1969.

Rogers, Spender L. *The Personal Identification of Living Individuals*. Springfield: Charles C. Thomas Publishers, 1986.

For anyone who has a need to see beyond the obvious, to pierce disguises, or to identify persons who may wish to remain unrecognized, this book provides precise instruction in the techniques of identifying faces, as well as a fascinating glimpse into the criminal mind. Written by a veteran police artist, this entertaining and instructive manual is the only one of its kind that teaches police officers, private detectives, security chiefs, store owners, bank tellers, or anyone how to observe faces, commit them to memory, and describe their features to others, as well as how to elicit pertinent information about faces from others under stressful conditions.

Most people, police officers and private investigators included, aren't able to describe faces very accurately because they haven't learned how to observe them. This book shows you what to look for and how to prioritize the important features. You'll learn what can be changed easily and cheaply; what can be changed only with time, effort, and considerable expense; and what cannot be changed at all. The author, who has been a police artist since 1981, shares FBI mug shots, police sketches, case studies, and amusing anecdotes of many of the true cases with which he has been involved. Included are chapters on head shapes, racial and ethnic patterns, facial angles and features, the effects of aging and life-style on faces, hair styles and facial hair, the ability of glasses and headgear to disguise and distract, and common misleading disguises used by criminals and terrorists.

After learning what features to look for and how to commit them to memory, you can test your newly developed observation and memory skills through a series of timed exercises. Finally, you'll complete your own step-by-step sketch from a verbal description. After reading *Mug Shots*, you'll never again look at faces in quite the same way.

Visit our Web Site at www.paladin-press.com

A PALADIN PRESS BOOK
ISBN 0-87364-572-3