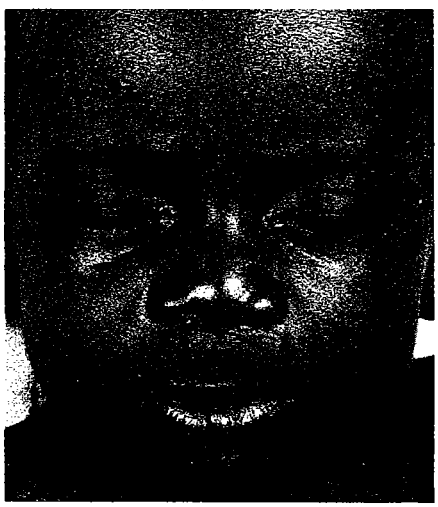
14. *Application in America*

ALL previous patients had been Oriental. Although it seemed logical that the same general design would work for any race, until it had actually been done there was no way to prove it. In 1956, about one year after starting plastic surgery practice in Miami, Florida, I did my first rotation-advancement on a Negro infant with a complete unilateral cleft. The method worked well.



The next rotation-advancement procedure was used in a white Marine sergeant's son who had an incomplete unilateral cleft. The incorporation of any salvageable tissue in Simonart's band to add to the advancing tip of the lateral advancement flap, of course, provided more filler for the rotation gap and faithfully followed the fundamental principle of throwing nothing away. This band portion of the deformity heretofore had been scrapped by all methods. The result with the white baby also was most encouraging.

FIRST AMERICAN PUBLICATION

In 1958 Neal Owens of New Orleans, who had trained in England in 1937, dedicated one complete issue of the *American Journal of Surgery* to honor Sir Harold Gillies and called upon many of his old students to participate with papers. Mine was entitled "A Radical Rotation in Single Harelip" and using these two cases as examples, black and white, it began:

Sir Harold Gillies has long taught the principle of avoiding routine by treating each case individually.

The underlying theme of this first American rotation-advancement publication was *not to force a rigid method into the mouth of every cleft.*

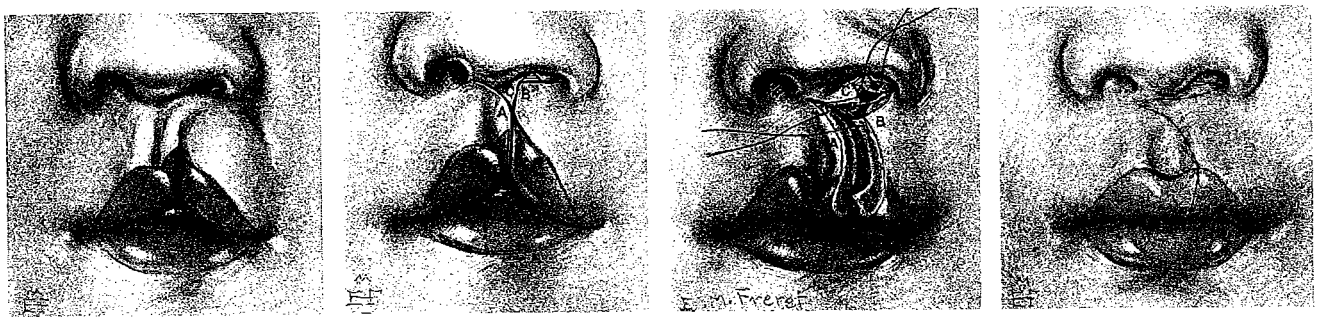
The act of constructing or repairing facial features is in its very nature artistic and, as in all art, depends on freedom for its vitality. No two cases are exactly alike; not even two harelips of seemingly equal degree of cleft can boast this identity. In general, one cleft lip with its nasal distortion may be reminiscent of another; they may even be similar but never quite identical. Hordes of patients are run through the A, B, C blue-dot routine because of the temptation to latch on to a reasonably satisfactory method and drift merrily along mesmerized by a memorized blueprint. Yet the simple fact that no two lips are identical seems to demand a surgical solution for each, with a personality all its own.

With the normal as our goal we need only be guided by fundamental principles:

In the harelip deformity both the lip and nose have been short-changed. Not only has nature left out a portion but she has allowed distortion of

what remains. This distortion can be relieved by moving normal tissues into normal position and retaining them there. . . . With tissue actually missing we must throw away nothing, guarding what little we have jealously for use to its utmost advantage. The presence of a cleft necessitates the formation of a scar and this scar, if not hidden, more often than not will give away the secret. It would be well, if possible, to maneuver it into hidden crevices or use it to simulate natural landmarks.

To show improvements in the design and to rally from my orange-crate sketches, Neal Owens lent his fabulous artist, E. Freret, to illustrate the method in incomplete and complete clefts for the *American Journal of Surgery* article. The incomplete cleft drawings were excellent except that B advanced too far into normal lip.

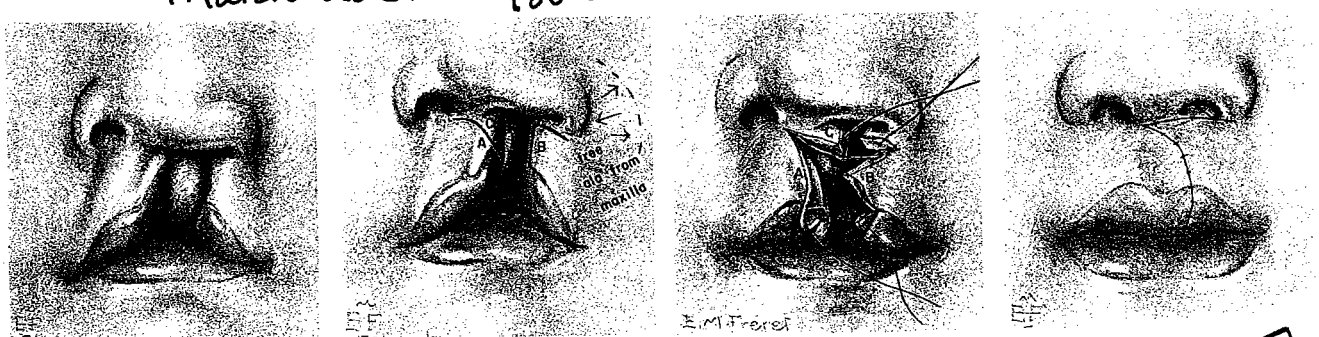


As so often happens when an artist tries to portray a surgeon's idea, the *design as drawn* would never work. This discrepancy was apparent in the diagrams for the *complete cleft* and probably explains later fears by other surgeons of this method in complete clefts.

OBSOLETE

Side A would never match side B

Flap B is marked too convex



the rotation incision would never rotate enough as drawn

flap C is too large

OBSOLETE

Freret's lovely drawings did facilitate the description:

With no effort toward making a routine procedure or pinpointing a rigid A, B, and C, let us proceed along a logical sequence. As suggested by Blair, there is no better measure than the human eye; this type of art is not strictly mathematical.

A, B and c were used not as strict points but as labels for flaps. Flap A with cupid's bow and dimple was rotated down. The description here as to how far the rotation incision should go could be misleading.

Usually it will extend slightly past the midline so that the rotation is radical and ever so slightly overcorrects the original distortion.

As shown in the diagram for complete clefts, the rotation incision would never have achieved normal position, and subsequent shortness or contracture would have been inevitable.

Yet, in the cases presented of the Negro and white babies, the rotation had been successful. This outcome possibly spurred surgeons to extend the rotation past the midline of the columella base and even further across into the lip on the normal side, producing an unattractive lip of abnormal vertical length.

A second misleading point in the diagrams and the description was in reference to little flap c.

In the process of rotating this main lip component the incision leaves a small triangular flap c attached to the columella. Flap c is destined to form the nostril sill and absorb a part of the pull at the tightest point in the closure.

Some unfortunately still do

Actually, flap c in the early cases was used to cross the entire nasal floor, but gradually this action was used less and less, and, as seen in the diagrams for complete clefts, flap c did not extend all the way across the top of the advancement flap.

The description of creating flap B noted use of any muscular Simonart's band in incomplete clefts and in complete clefts advised that the lateral incision

start high and curve down and out under the alar base. It is well to extend this incision cautiously and "cut as you go" so that by repeated trial flap B advances until it amply fills the gap and maintains the primary rotation.

The nasal bonus was noted:

One of the most satisfying after effects of advancing the lateral triangular flap B across into the gap between columella and flap A is the natural positioning of the flaring alar base.

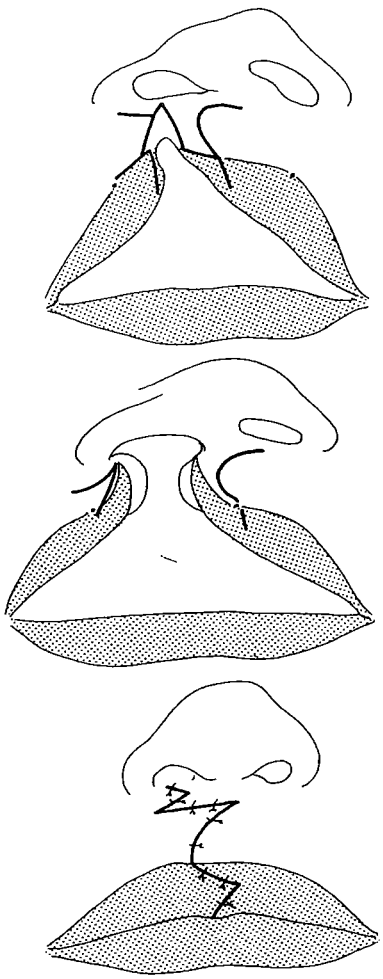
This simultaneous nasal bonus is rather vividly demonstrated in this patient operated on at Princess Margaret Hospital, Nassau, Bahamas.

For those who were questioning tension at this key point of advancement into the rotation gap, it was admitted:

It is at this point in extremely wide clefts, however, that a moderate amount of tension is created. Yet if there must be tension this is the point of greatest advantage. Not only does this tension provide a reduction in the abnormally wide nostril floor but any relative tightening across the upper portion of the lip produces a pleasant protrusion of the lower portion resulting in the semblance of a pout. Another advantage is that tension high in the lip . . . is splinted by the maxilla beneath and distortion of the soft free border of the lip, as seen in other methods, is avoided. . . . Thus the general effect of this final scar is a [scar] line running from the peak of one bow along a natural philtrum line beside the dimple and matching the opposite normal column. The scar proceeds obliquely up toward the columella swinging under and breaking into a zigzag, all of which is hidden in the shadow and crease lines of the nostril sill and alar base.

DISCREPANCY IN DESCRIPTION

From the first presentation of this method there had been some who feared the long oblique line of the lopsided Z because of the possibilities of its contracture. Some reported a notching. Advice in the 1958 paper had been:



a "cut-back" is also a "back-cut."

If the primary rotation is radical, the advancement flap full-bodied enough to fill the gap adequately and the muscle approximation across the cleft thorough, the ultimate result can be nearly perfect. There may be a slight contraction during the first weeks of healing but as months pass the scar will soften and the lip smooth out. This sequence of events has been observed in numerous cases. A persistent notch merely indicates inadequate primary surgery and must be corrected simply as any other notch.

At the time I was irritated that others continued to complain about contractures and notching. Yet, as I look back, it is quite obvious that the original diagrams, if emulated as rigidly as points A, B and C had previously been followed in other methods, would lead to inadequate rotation, immediate shortness along the scar line and permanent contracture and notching.

Take, for instance, Professor Frantisek Burian's Czechoslovakian 1968 diagrammatic interpretations of the rotation-advancement method in complete and incomplete clefts. They were similar to my original sketches, but if copied literally as he diagramed the procedure there would be no way to achieve matching sides or an artistic result.

Such glib phrases as "cut as you go" and "treat each case individually" did not explain how to get the last bit of rotation that made the difference in many cases. It was years before I realized that I had been responsible for allowing a "blind spot" that was acting as the main *hang-up*. It had been taken for granted that any rotation incision, when necessary, can be further rotated by a *cut-back*. This was hinted in 1964 and finally emphasized in Rome in 1967.

TEMPORARY CONTRACTURE

Whereas there was considerable concern with the inadequate rotation and the subsequent contracture, this was never a major problem. Many cases showed an early lift on the cleft side as the scar healed. This will be shown in several cases later. Yet, if the skin distance from the alar base to the height of the cupid's bow on the cleft side was equal to that of the normal side at the termination of the operation, all would end well. In spite

of a temporary contracture, by six months to a year the lip would have settled down to a symmetrical bow.

EASE OF SECONDARY REVISION

One of the advantages of this approach has been the ease of correction. Seldom is it necessary to take the lip apart for more rotation and advancement, but when indicated it can be done without difficulty. No bridges are burned, and revisions can be executed along normal lines while continuing to preserve natural landmarks.

A CHALLENGE

The second American publication was a *challenge* to stop irreversible damage and to go for the ultimate potential.

Irreversible damage

In 1959 an appeal was made to all doctors in the *Journal of the American Medical Association* entitled "Preservation of Natural Landmarks in Unilateral Cleft Lip." It began:

> The harelip deformity, with its twisted distortion of the nose and gaping cleft of the lip, utterly disfigures the center of the face and destroys any chance of normal expression—even a smile is grotesque. So horrible is it

that whatever the surgeon does will be an improvement [and will gain the parents' eternal gratitude]. Yet mere improvement is not enough and should not be accepted as a triumph. . . . It never ceases to be a thrill that two simple incisions [rotation and advancement] can set up such a consecutive chain of happy actions.

Then came the punch line:

Several popular methods in use today ignore one or more of nature's landmarks and, what seems even more tragic, by actually *destroying* them in the *primary* repair cause them to be *lost forever.*

Ultimate potential

Many surgeons have discounted the importance of a method by saying that a surgeon should use whatever procedure he personally believes will work best for him. *This attitude can lead to mediocrity.* It is true that most experienced surgeons have their favorite lip method, and with this their results are better than with any other. Yet, no matter how *skilled* a surgeon may be, his best results are *limited* by the *ultimate* of the method he favors. A method's merit must be measured by the closeness of its approach to a natural looking and acting result. Cleft lip surgeons must be perfectionists, free to aspire and willing to work in millimeters. If the method scraps the cupid's bow, violates the dimple or allows the scar of union to cross natural lines, then no matter how fastidious the surgeon is, he can never make up the handicap. There is, however, one essential factor which influences the outcome of any method. Before a technique can be made to attain its greatest potential, the surgeon must not only be *familiar* with it and *believe* in it but actually *woo* it to its ultimate.