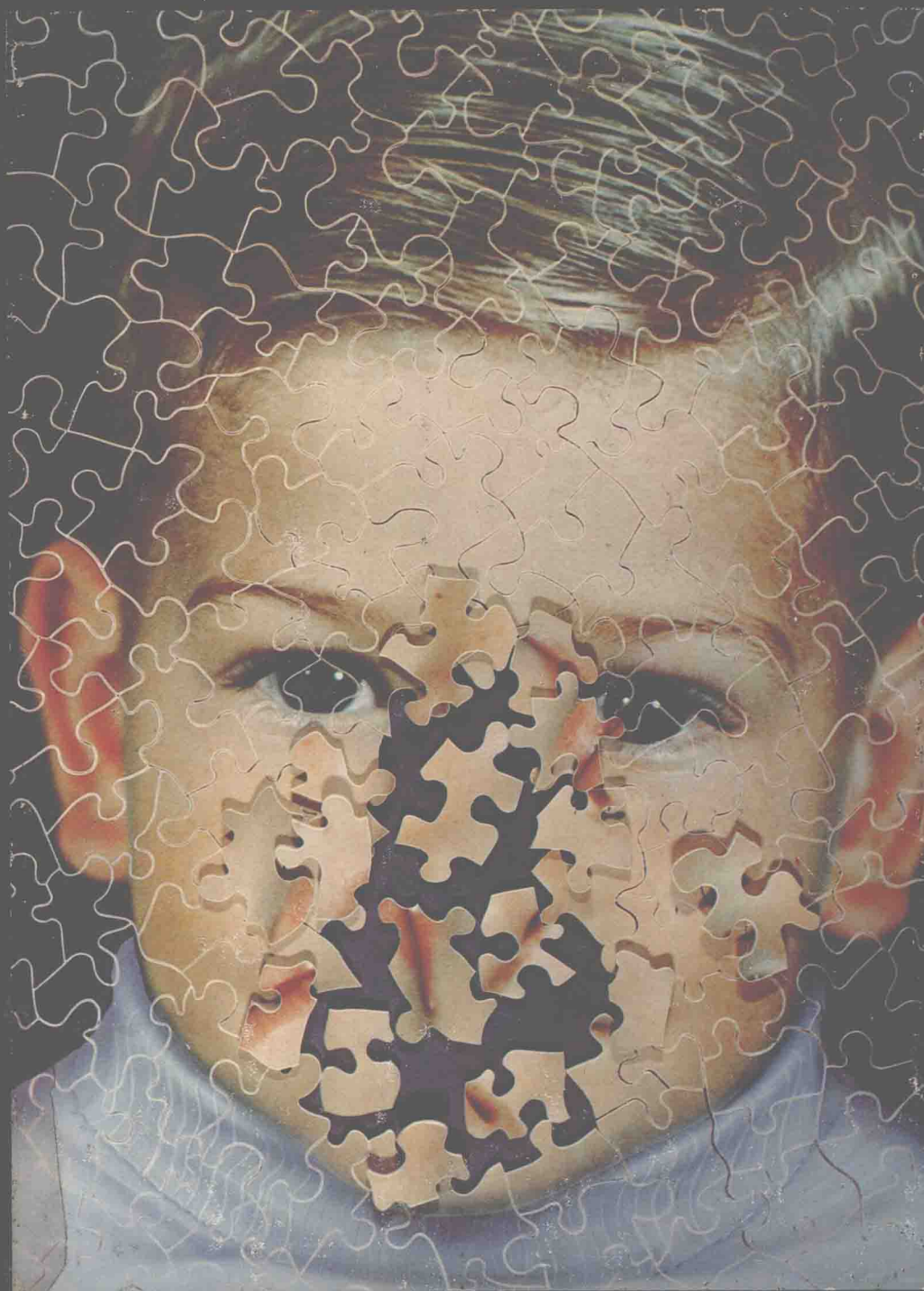


CLEFT CRAFT

THE EVOLUTION OF ITS SURGERY

II. BILATERAL AND RARE DEFORMITIES

D. RALPH MILLARD, JR., M.D., F.A.C.S.



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LITTLE, BROWN AND COMPANY BOSTON

Cleft Craft: The Evolution of Its Surgery—Volume II: Bilateral and Rare Deformities
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First Edition

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Library of Congress catalog card No. 73-17666

ISBN 0-316-57138-5

Printed in the United States of America

Volume I on the unilateral deformity was published in 1976.

Volume III on alveolar and palatal deformities is in preparation.

Composition and camera: York Graphic Services, Inc.

Presswork: Halliday Lithograph Corporation

Binding: Halliday Lithograph Corporation

Paper: 70-pound Hopper White Smooth Opaque

Color separations: National Bickford Graphics

Color presswork: Daniels Printing Company

Design: Clif Gaskill

Layout: Mary Gordon and Richard Sarabia

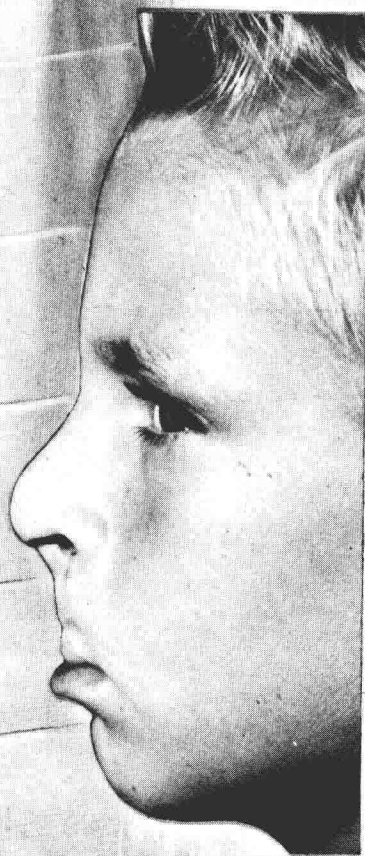
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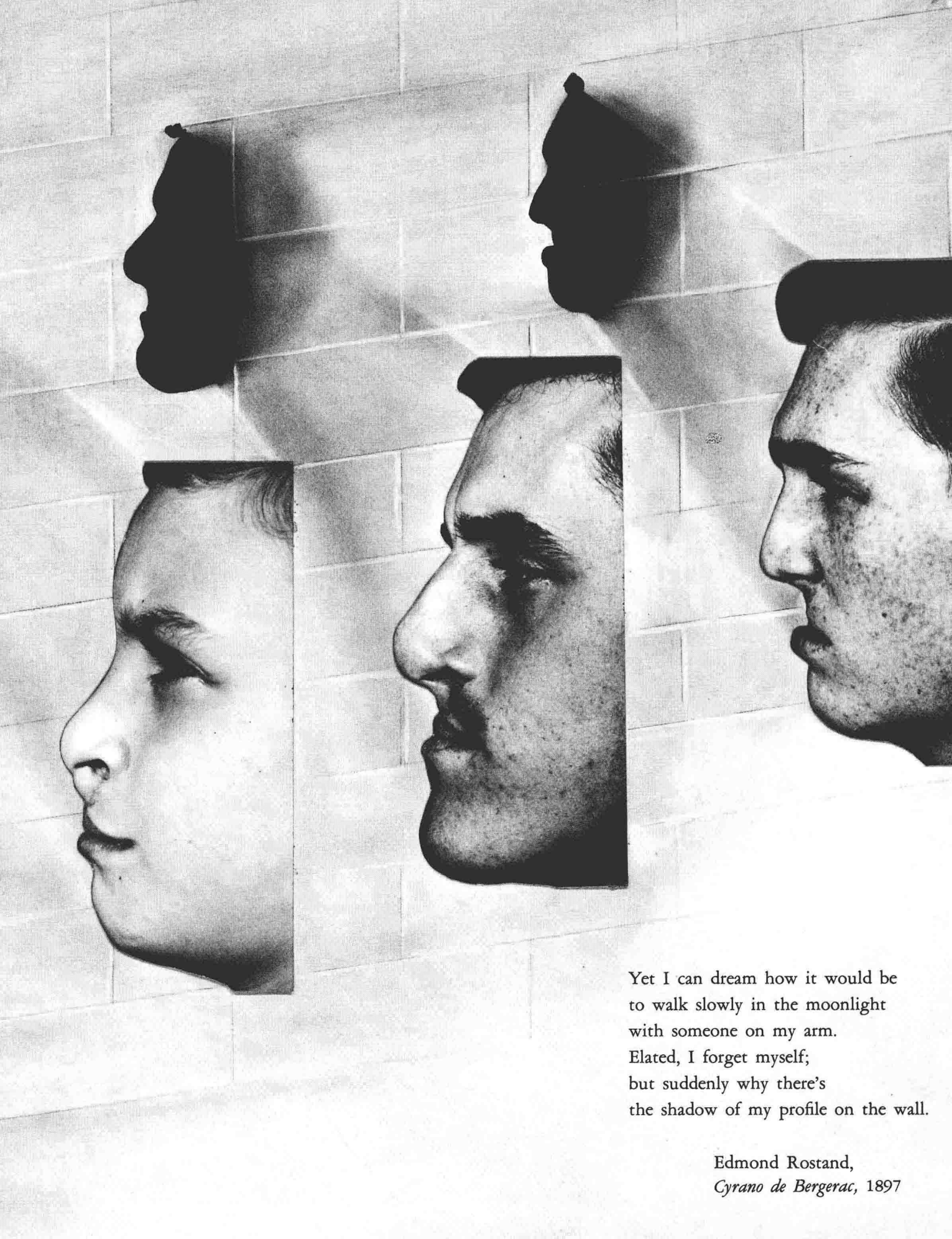
THERE has always been an inherent desire in man to look like his fellowmen and not to appear horrible, peculiar or even different. Centuries before Christ, in ancient India, a Hindu by the name of Susruta Samhita understood this, when he wrote:

The love of life is next to the love of our own faces and thus the mutilated cry for help.

There has been a marked variation in the ability of man to adjust to a deformity. Comedian Durante followed his great nose to fame and fortune while the swashbuckling Cyrano de Bergerac actually came to his death because of a nose of similar size. Between these extremes the rest of us muddle along to the best of our ability.

Thus a baby born with a congenital bilateral cleft becomes a #1 priority. Such an infant, usually normal in every other aspect, has only the clefts gaping between him and his share of happiness. This has challenged thousands of surgeons over many centuries to surpass the feats of previous surgeons in the evolution of *cleft craft*.





Yet I can dream how it would be
to walk slowly in the moonlight
with someone on my arm.
Elated, I forget myself;
but suddenly why there's
the shadow of my profile on the wall.

Edmond Rostand,
Cyrano de Bergerac, 1897

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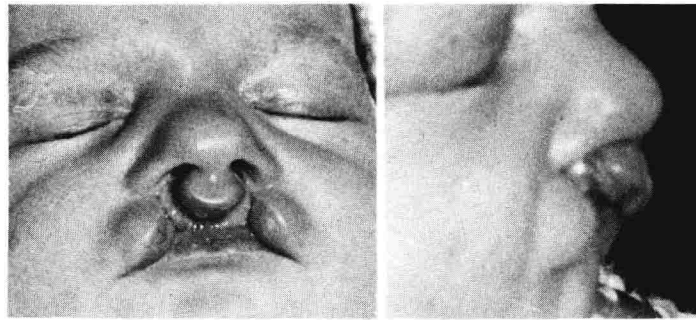
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POTTER

Honest John Potter of Stockton-on-Tees in the Newcastle region in 1968 attributed much of the bilateral nasal problem of flattened nasal tip, short columella and wide nostrils to the fact that "the pre-maxilla bulges into the nostrils." He predicted that after any standard surgery there would be "obstruction of the airway and a chronic catarrh."

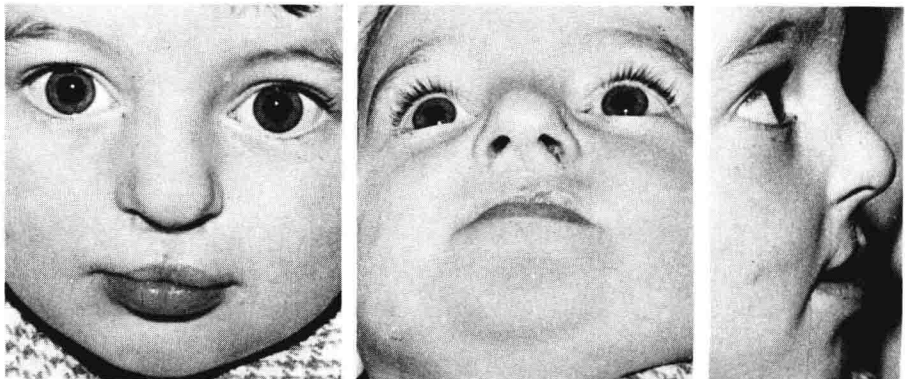
Experience with a complete bilateral cleft of the lip and palate with a pigmented epulis involving the premaxilla had forced him to remove the front of the premaxilla during the tumor excision. The result was an early, better than usual, nasolabial angle which inspired Potter to simulate this approach in the standard projecting premaxilla.



1963

Thus, in 1963, he operated on a new case which did not have a severely projecting premaxilla. He attacked the premaxilla by removing its anterior plate in the upper two-thirds, tooth sacs and central septum to bring it back in relation to the nasal spine. He then shifted the prolabium partially out of the lip and into the columella, bringing the lateral lip elements together in the midline.

Potter was genuinely encouraged three years later by the nasal improvement in flatness and the lack of obstruction, as he expressed in the *British Journal of Plastic Surgery*, April 1968. As he

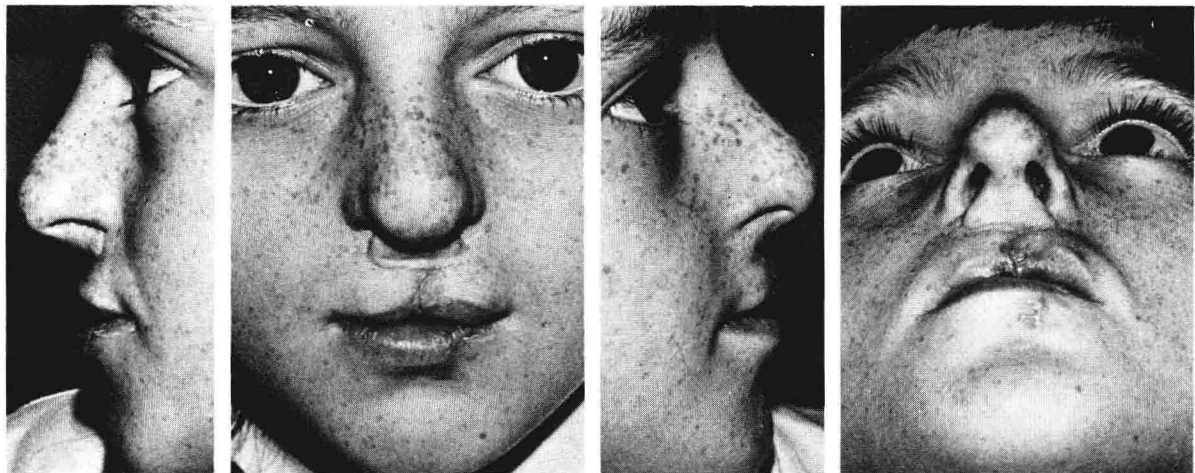


1966

had avoided nasal obstruction, he cited Proetz' 1953 work as further defense of this approach and elaborated:

Because the air passages are distorted, deposits occur on the nasal mucosa beyond the obstruction. This causes local drying, a loss of cilia and consequent infection. There is a chronic condition of discharge and frequent acute exacerbations. Usually these children are mouth-breathers with a chronic nasal discharge.

As taught by his chief, Wardill, Potter followed his case faithfully and, although still convinced that the gain had been worth the price, he candidly expressed regret over the loss of the upper incisors and the repositioning of the premaxillary area, probably requiring an Abbe flap. In fact, an Abbe flap must have been used subsequently, as suggested by the donor scar, but evidently was too small to construct an adequate philtrum. A 10-year follow-up kindly forwarded by Potter is available for your evaluation.



1973

SKIN GRAFT TO THE PROLABIUM DEFECT

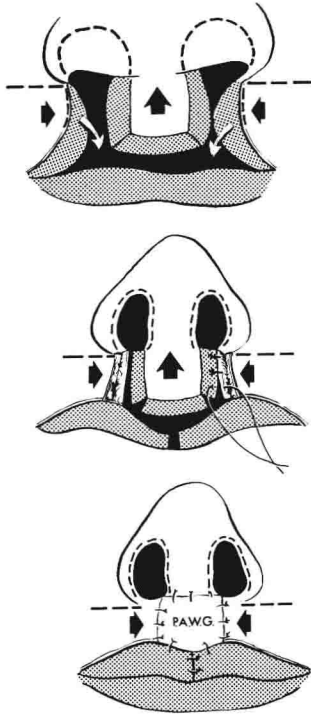
British-trained Jack Penn of Johannesburg, South Africa, sculptor, six-day Israeli war expert and wild animal reserve guide, conceived a way to poach the prolabium for the columella and avoid a serious price of this action: lip tension. His observation when teaching cleft surgery is provocative:

Remember, a cleft palate is also a cleft nose, and its correction is equally important at a very early stage. This applies to the flattening of the nostril in



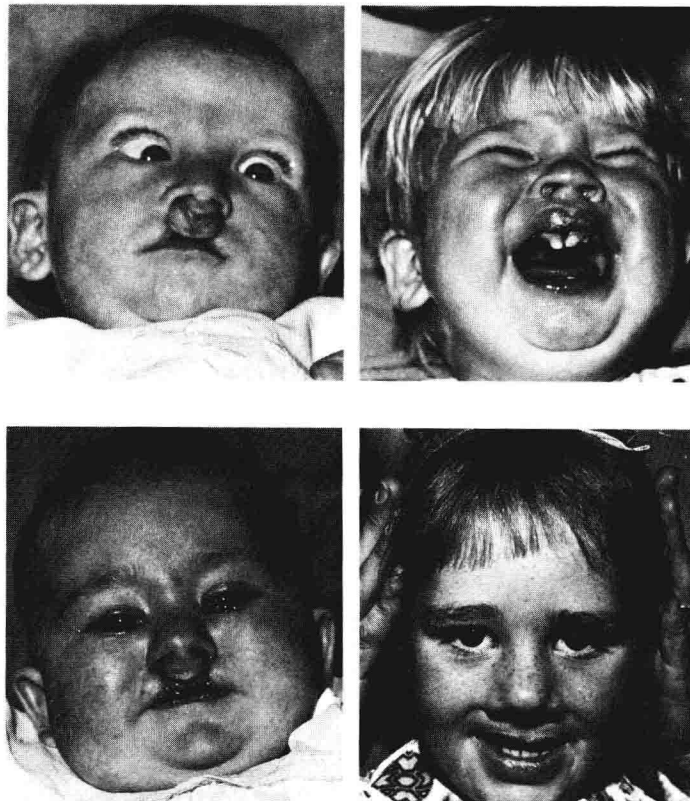
Jack Penn

the unilateral cleft and to the shortening or loss of the columella in the bilateral cleft. I deal with both of these problems at the first stage of three months.



At the Melbourne Congress in 1971 Penn proposed his way of dealing with the problem of the flat nasal tip in the bilateral cleft. He advocated moving the total prolabium into the columella, joining the turndown flaps of lateral lip vermilion to form a free border and suturing the mucosal edge of the lateral elements to the mucosal edge of the premaxilla. This procedure leaves a defect of the philtrum backed by the raw premaxilla posteriorly. Penn covers this area with a full-thickness free graft of posterior auricular skin, which he maintains will give a philtrum appearance and maintain a short upper lip. He also mentioned that this graft can later be elevated and grafted behind to form a labial sulcus. For those who think that the orbicularis oris muscle is important, he gives this assurance:

The fact that there is no muscle in the prolabial element does not interfere with the function or the appearance of the lip.



The fact that Penn received a major portion of his plastic surgery training from Sir Archibald McIndoe, who himself was renowned for his free skin grafting of burned Battle of Britain pilots, probably explains this unusually demanding performance of a free skin graft. The three interesting cases included here, forwarded by Penn from South Africa, although they are relatively early results, do indeed show a nose with the tip well up. It is important, however, to note the possible discrepancies of such an approach. In the male, it is not so much that the hair-bearing prolabium might produce a "bristling" columella as that the newly grafted philtrum will be noticeably bald. The lack of labial sulcus is unfortunate, but even with a skin-grafted one secondarily there is a most serious diastasis of the orbicularis oris muscle and the likelihood in time of severe flattening and horizontal spreading of the muscleless philtrum.

In general, the *prolabium's primary duty must be to the lip*. To shift it totally into the columella may offer a definite dividend to the nose, but this is overshadowed by the loss to the lip. Joining the composite lateral labial elements together in the midline with one vertical scar produces a bizarre lip shorn of its central philtrum. The side-to-side tightness will give an inartistic flatness which eventually will result in a long lip in the vertical dimension. If no attempt is made to join the muscles, the lack of muscle continuity becomes the deformity. Neither is natural.

