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****Medical Illustrator's "Aged" Drawing
Locates Girl -- Missing 10 Years

DALLAS -- You may have received one today -- a postcard with a drawing of a missing child. You probably glanced at it and threw it away. But the picture on that seemingly insignificant piece of paper could change lives.

Lewis Sadler, director of Medical Illustration Services and associate professor of biomedical illustration at The University of Texas Health Science Center at Dallas, says over 1,000 children are reportedly abducted each year and the number of those located is unfortunately low. However, on Feb. 10, 1987, Stephanie Michno beat the odds. She was reunited with her mother after being missing 10 years.

At age 3, Stephanie was allegedly abducted from her home in North Carolina by her father. Sue Fowler, her mother who had legal custody, began a search for Stephanie through the local authorities, but this method proved frustrating and unsuccessful for eight years.

In 1985 the newly formed North Carolina Center for Missing Children distributed posters of the 3-year-old girl. The next year the center asked Sadler to "age" the original photo nine years -- in essence, to create a picture of 12-year-old Stephanie.

This photo was distributed on direct mailing address cards and posters across the United States. In less than a year Stephanie was identified in Albuquerque and reunited with her mother.

This case was one of the oldest open cases of a missing child in the country, said North Carolina Governor Jim Martin in welcoming Stephanie and her mother back. And one of the peculiarities of this case is that Sadler, who flew to North Carolina for Stephanie's reception, freely admits his drawing did not look much like her.

"It was not all that close," he says, "but there are some things that are impossible to account for. She was a pudgy 3-year-old, but is extremely thin at 13. She also had an interesting smile but now has a mouth full of braces. And of course, her hairsytle has changed considerably."

There must have been something special, however, to result in two sightings of a 13-year-old from an "aged" 3-year-old's picture. Sadler explains that there is a unique quality of human faces that is as individual as a fingerprint.

"There was something about Stephanie's expression that two separate people recognized in the drawing," he says. "I've been involved in studies that demonstrate how recognition is made. For example, we asked participants to describe their best friend. Most of these people couldn't tell us the color of their friend's eyes or the shape of the mouth, but that didn't stop them from recognizing their friend.
We are given more clues than we use to identify someone. It is not so important that the drawing is 100 percent accurate but that we get an overall effect that works. We want a person to look at the picture and identify the missing child."

(more)

The work of Lew Sadler and Scott Barrows has accounted for 14 children found out of 45 drawings. Barrows is a former UTHSCD medical illustrator now living in Chicago. They are the only two illustrators of missing children using a scientific technique to predict facial growth and differentiation.

Sadler, who developed this technique, explains, "We locate up to 43 anatomical points on the face. We have compiled statistics on the changes that happen at and between those individual points over a period of years on a "normal" child. We have a complete list of changes for Caucasian children between the ages of 6 and 18. We note the variance between the missing child's statistics and our normal child's. Then we look at a normal child's statistics a certain number of years later. Here we use the variance to figure out new points for the aged child. We plot the anatomical points on paper and fill in the characteristic features. Very basically, it is like a dot-to-dot drawing." Sadler's technique is 89 percent accurate in creating a likeness.

There are plenty of surprises that can distort the aged picture. "We're dealing with one instance of a child's life. One freezing of time in a photograph. We can't predict growth spurts or stops. There is the added problem of braces, glasses and hairstyles," Sadler says.

Sadler, who does not accept money for this work, spends approximately 20 hours completing one drawing. Therefore, it is virtually impossible for him to draw even a few of the different possibilities for each child. "We already have a large waiting list," he explains. "It is not easy telling a parent that he or she has to wait."

This problem could be avoided with the use of a special system that would computerize the measurements and graphics involved in facial growth. Sadler says it would speed up the time devoted to the original drawing and make it much easier to depict different hairstyles, glasses, braces and weight gain or loss. The medical illustrators are still looking for funding to establish this $300,000 computer center.

Distribution: AA,AB,AC,AF,AF1,AG,AG1,AH,AI,AK,AK1,AM,SC

NOTE: The University of Texas Health Science Center at Dallas comprises Southwestern Medical School, Southwestern Graduate School of Biomedical Sciences and the School of Allied Health Sciences.