
The lesson to be drawn from the imperfections of computer software, Littlewood and Strigini conclude, is that, especially in situations where concern for safety is paramount, software should not be given "too critical" a role. Either the assigned role should be so modest that the reliability of the software can be demonstrated beforehand, or else independent backup systems using different tech-

nology or taking a different approach should be used. An industrial plant whose operations are controlled primarily by computers, for example, could be equipped "with safety systems that do not depend on any software or other complex design." In short, despite the dazzling technical achievements of the past two decades, "being skeptical is the safest course of action."

ARTS & LETTERS

Barbershop Dustup

"Play That Barber Shop Chord: A Case for the African-American Origin of Barbershop Harmony" by Lynn Abbott, in *American Music* (Fall 1992), Univ. of Ill. Press, 54 E. Gregory Dr., Champaign, Ill. 61820.

Mention *barbershop quartet*, and a Gay Nineties image of dapper white barbers and their patrons harmonizing together comes to mind. The impression that barbershopping is a white tradition was fostered for decades by the Society for the Preservation and Encouragement of Barber Shop Quartet Singing in America, founded in 1938 in Tulsa, Oklahoma. Abbott, an independent scholar, strikes a dissonant note. Like jazz and rock music, he says, the "barbershop" style probably originated with African-Americans.

During the late 19th and early 20th centuries, American black men frequently lifted their voices in harmonious song. In Kansas City during the late 1880s, recalled vaudevillian Billy McClain, "about every four dark faces you met was a quartet." Dr. Laddie Melton, who began harmonizing in schoolyard quartets in New Orleans around 1910, said that whenever "three or four Negroes [got] together," they'd say, "Let's crack up a chord! Let's hit a note!"

"The art of 'cracking up a chord,'" Abbott says, "was born in unabashed celebrations of the 'weird,' organically blended harmonies that first distinguished the group-singing traditions of plantation slavery." Although heard in many places, from lodge halls to barrooms, the unique sound came to be especially associated with black barbershops, which served as places for socializing and for rehearsing and performing music, and so it came to be known as "barbershop harmony." The father of the famous Mills Brothers—who began singing in the 1920s, made successful recordings in

the '30s, and had a spectacular national hit in 1943 with *Paper Doll*—had taught his boys harmony in his barbershop in Piqua, Ohio.

"In the days when such a thing as a white barber was unknown in the South," black lyricist James Weldon Johnson wrote in 1925, drawing on his memories of Jacksonville, Florida, in the 1880s, "every barber shop had its quartet, and the men spent their leisure time playing on the guitar . . . and 'harmonizing.'" Their style, Johnson added, "gave a tremendous vogue to male quartet singing, first on the minstrel stage, then in vaudeville; and soon white young men, where four or more gathered together, tried themselves at 'harmonizing.'"

Pablo Picasso, Classicist

"Picasso: In the Beaux Quartiers" by Michael C. Fitzgerald, in *Art in America* (Dec. 1992), 575 Broadway, New York, N.Y. 10012.

During the years after World War I, Pablo Picasso (1881–1973) suddenly shed the image of bohemian Cubist and assumed the role of fashionable Classicist. He even did some paintings that very much resemble society portraits. At the center of this re-creation of himself, according to Fitzgerald, an art historian at Trinity College, Hartford, is *Studies* (1920–22), a painting that looks like an intriguing puzzle picture and that until recently was little known.

"At first glance," Fitzgerald notes, "one might dismiss *Studies* as merely a chance assemblage of unrelated sketches." But the images have a distinct order. "Highly finished miniature Cubist still lifes at the outer edges frame the canvas, while figures