

New Life for the Ancient Craft of Organ Building

Barbara Owen

For more than a thousand years, a colorful procession of both saints and sinners have labored at the unique craft of organ building. The saints have included learned monks and at least one reformation-age martyr, and the sinners have engaged in almost every known sin.

Many of the gifted craftsmen who labored to rear the musical monuments which still grace many of Europe's cathedrals were anonymous. Yet the names of the great master builders of the organ's golden age—affectionately called the “Old Guys”—are known and revered among those who still practice their trade: Arp Schnitger, the 17th-century North German master whose bones lie beneath the church floor where one of his instruments is still played; Alexandre and Francois-Henry Cliquot of 18th-century Paris, Saxon Gottfried Silberman, contemporary and friend of J. S. Bach; 17th-century Italian organist-builder Costanzo Antegnati; “Father” Henry Willis, who in the 19th century created the English concert organ; David Tannenberg, the Moravian immi-



Steve Boody transfers pipe measurements with proportional dividers. In the foreground are conical feet of pipes; cylindrical parts are pipe bodies.

grant who built organs in America before it became a nation; and Elias and George Hook, who later proved that Americans could build organs equal to those of Europe.

The earliest known organs were small, crude, and loud, and their uses were secular. Some claim that Nero played one, rather than a fiddle, while Rome burned. These primitive organs could produce only a single melody line, and in the 9th or 10th century AD some perceptive cleric saw the advantages of using them to

help keep unruly church singers on the straight and narrow path.

Once inside the church, the organ underwent a transformation, becoming at first bigger, louder, and more unwieldy, and then more complex. By the 15th century it assumed a form easily recognizable today. By the 17th and 18th centuries the organ had reached a zenith as both a musical medium and art form, coinciding (probably not by accident) with a similar pinnacle in the writing and performing of church music by men such as Johann Sebastian Bach, George Frideric Handel, and Girolamo Frescobaldi.

By the late 18th century, however, as the cultural and political center of civilization was shifting away from the Church, music followed to the secular world of the opera stage and the concert hall. Organs were regarded as a relic of the past. The 19th century saw a brief resurgence of the organ as a musical instrument greatly complicated by technical innovations. By the 20th century these “improvements” had become so extensive that the machinery, not the esthetic value of the organ, was of paramount importance, and musically the organ sank to a new low as an instrument of electrically produced background music.

During the past 200 years most of the old baroque organs of Europe have been rebuilt, mutilated or destroyed, despite the too-often unheeded outcries of visionaries such as

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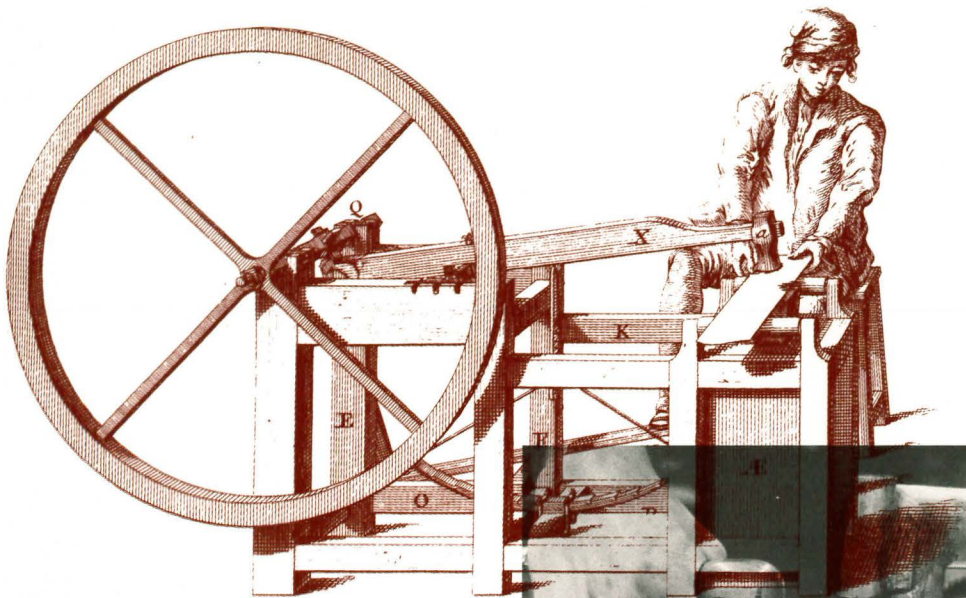
Photos by Tom Byers for the Smithsonian. Line drawings from *The Organ Builder* by François Bédos de Celles, published in France between 1766-78, published in 1978 in translation by The Sunbury Press.



Jill Faulds skims the ladle. As the hot metal chills, the oxides which form on the top must be skimmed off. When the metal gets to the right temperature the pipe makers pour it into the trough and "run the sheet".

Jill Faulds and Lou Dolive are "running the sheet". The trough is filled with hot metal and run down the table, a granite slab covered with cloth. The metal runs out of a slit at the bottom to form a sheet. This chills quickly and is rolled up for storage. Various alloys of lead and tin are used for organ pipes, from almost pure lead to about 90% tin. Most organ people agree that the type of alloy has some effect on the sound. Though this point is sometimes hotly debated, it is almost never ignored.





Albert Schweitzer. Also, two world wars did not help; a Gothic organ played by the composer Buxtehude in the 17th century virtually stood unaltered until the bombing of Lubeck in 1942.

By mid-20th century some young organists and organ builders of both Europe and America paused to look back over the long history of their instrument and realized that something had been lost: they set out to find it again.

What they found was the Old Guys and their accumulated wisdom. Slowly, sometimes mistakenly, and often painfully, they began to retrace, to find out what organs were all about back when people revered them and wrote transcendent music for them. They found the organs that the Old Guys had built—those that had been bypassed by “progress”—and studied and restored them. More recently, much attention has been given the long-neglected “how-to-play-it” books of 17th and 18th centuries, and the sometimes astonishing bits of information that they present to musicians accustomed to modern playing techniques.

Now we are picking up again where the Old Guys left off with much help from the Old Guys themselves, now held in great affection after centuries of neglect. The art of building a sensitive and responsive mechanical playing action, lost for over half a century, is being restudied and practiced by a growing number of modern organ builders.

We have learned that the common



Lou Dolive hammers organ pipe metal with a modern pneumatic hammer.

characteristic of all the best old organs is their singing, unforced pipe speech, possible only when the organ is properly controlled, properly winded, and stands free in the room—as organs always did until recently. The pipes of the old organs speak in eloquent detail of the voicing and scaling techniques used to achieve this warm and natural sound if one has the patience to put aside preconceived notions and pay attention to the accumulated wisdom of the Old Guys in studying them. Even the materials turn out to be critical to the sound of the pipes; tin for the silvery quality of the 18th century French and South German organs; lead for the sturdier, more fundamental quality of the northern European and Renaissance instruments—and the lead must be hammered to produce the best quality of sound.

Curiously, there is one aspect of organ building that has changed little since medieval times: the making of metal pipes. From the largest, most

mass-production-oriented factory to the smallest workshop, the tin and lead alloy is still melted in an iron pot and run out in sheets on a flat, cloth-surfaced, stone table. The metal is still cut, formed, and soldered by hand, and the finished pipes are voiced with the same tools used since time immemorial. The melting-pot and soldering irons are now heated by gas or electricity instead of charcoal, but little else has changed. And while it is now possible to obtain tin and lead free of impurities, it turns out that the old impure metal made better pipes, and thus modern pipemakers must add calculated amounts of copper, antimony, and bismuth to their mixture to insure the desired results.

Today, the people who pay the greatest respect to the Old Guys are often young guys. Most of them are intelligent, highly skilled, and well-educated craftsmen who could probably make much more money designing missiles or TV sets if it were not for their general disillusionment with mass-produced consumer culture, and their great satisfaction from making something beautiful with their own two hands. While they would not, as a few cynical critics intimate, wish to go back to gaslight and the horse and buggy, they do combine the practicality of power tools with pride in their mastery of hand tools, and will from time to time step aside from their creation of a new organ to restore an old one. Although most of these younger builders have plenty of work, they probably won't leave their heirs much money when they die; they just possibly may leave something of far greater value—even as the Old Guys did.

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DISCOGRAPHY

- All records in the following series (all available in the U.S.)
- “Die Alte Orgel” (Telefunken)
- “L’encyclopédie de l’Orgue” (Erato)
- “Historic Organs of Europe” (Oryx)
- Organ Historical Society convention recordings.