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Historical Organs in America

Sometimes during the Christmas break, there arrived in our university mailbox a circular advertising a conference on “The Historical Organ in America,” to be held in mid-January at Arizona State University in Tempe. We glanced at it with the rest of our mail on our return and were puzzled to see that the list of symposium participants included only one scholar with a specialty in American organ history. Granted that Barbara Owen is an Americanist formidable both in her expertise and polemic talents, there did seem to be a tad of imbalance, given the subject to be inferred from the title of the conference.

On closer reading, however, it became clear that that title was to be understood as characterizing the work of “a distinct school of builders whose orientation is historical and based to a large extent on surviving northern European baroque organs.” In such a context, the reason for the makeup of the symposium participants became clearer. The issue, of course, is whether that context and the mindset it suggests are themselves reasonable or even especially accurate.

We could argue that there are, or were, other European schools of organbuilding with an equal right to the laurel, “historical,” or that there are good and substantive architectural and cultural reasons why the north European model was and is not necessarily appropriate for American buildings; or that the limitations inherent in such designs make them questionable media for much of the repertoire recognized as legitimate by organists and musicologists; or, indeed, that the cutting edge of critical musical scholarship has already undermined the philosophical validity of “authenticity” as a tangible idea in the performance of early — and not so early — music.

But the foregoing are grist for longer articles. Suffice it for now that we not allow to pass unremarked the oddity (“presumptuousness” seems a tad harsh, but the word does come to mind) of a conference globally styled, “The Historical Organ in America,” that excludes early American organs from consideration as historical.

JKO
LETTERS

Editor:

In the article by David Lewis, Jr., on the history of the Hook & Hastings organs in St. Joseph, Missouri (Tracker35:4:17), he notes that the presence of a Swell-to-Great 4' coupler in Op. 2112 is "highly speculative." In fact it is certain that this coupler was present. My Hook & Hastings files contain stoplists for two manual, tubular-pneumatic organs of widely varying size built between 1904 and 1908. All include this coupler. For the record, examples are Opus 2024 (1904), 2-29; Opus 2047 (1904), 2-11; Opus 2156 (1907), 2-17; and Opus 2173 (1908), 2-31.

Mr. Lewis notes (p. 23) that slider chests were used by Hook & Hastings into the 1920s. Slider chests were commonly used by the firm into the second decade of this century without any correlation to the type of action involved and often for organs of impressive size. The best example of this is Opus 2269 (1911) at the First Unitarian Church, West Newton, Mass., a largely intact four-manual divided organ which has always been electropneumatic. They built their last tracker (Opus 2483) in 1924 for St. John's R. C. Church in Miller's Falls, Mass., with, presumably, slider chests.

This organ was destroyed in the 1960s.

Forrest Mack
Waltham, Mass.

Editor:

The letter from William Layne in The Tracker (35:4) regarding the picture of the unidentified organ (35:3:22) jogged my memory also. I was a graduate student at the University of Cincinnati in 1961 and also saw the instrument. It was an 1890 Frank Roosevelt and was in the Balch mansion, which was soon to be demolished, as Mr. Layne states. In addition to the stops that he remembered, it had a Rohrflute, a Trumpet or Fagotto with a divided drawknob for treble and bass, and I seem to recall that it had a 16' Pedal reed. The organ was in playing condition, and I remember being impressed by its tone. The doors at each end of the case led to a walkway through the center of the instrument. The remains of the water turbine which originally furnished the wind could be seen in the building, including a large tank in the attic.

If I remember correctly, the wrecking company was asking $1,200 for the organ, a sum which I unfortunately did not possess at the time. I hope Mr. Layne is correct in saying that the organ was sold to a church. I heard some months later that a local organ technician purchased the pipes for several hundred dollars and that the rest of the organ was scrapped.

Bruce DeVille
Westlake, Ohio

NOTES & QUERIES

Readers:

The Leo Sowerby Foundation maintains a sound archive of the music of Leo Sowerby. Our collection includes both organ and many non-organ works, including two of the five symphonies, one of the string quartets, many sonatas, songs, cantatas, tone poems, concerto, etc. We have the following recordings from live performances: Concerto for Organ and Orchestra; Concert Piece for Organ and Orchestra; Festival Musick; Suite for Organ, Brass, and Kettedrums; Tryptych of Diversions; Medieval Poem; and Classic Concerto. We would particularly like to assist performers who seek to perform Sowerby's works.

We would be grateful to learn of and, if possible, obtain any Sowerby works in the collections of Tracker readers and would, where possible, furnish items of interest in return. There are several works still awaiting a world premiere: Concerto No. 2 for Organ and Orchestra (1966), Symphony No. 5 (1964), Prayer of the Slinger (1934, soprano and orchestra), Prayer of the Seafarer (1934, medium voice and orchestra), Psalm Symphony (1922, organ, orchestra, and chorus), Concert for Harp and Orchestra (1919), and five solo organ works from Sowerby's adulthood.

Dr. Ronald Huntington
1898 Lemon Heights Dr.
Santa Ana, Ca. 92705
OBITUARIES

David L. Junchen (1946-1992) died on January 30 after a three-year struggle with cancer. Junchen, organ-builder and long-time member of OHS, was prominent in the fields of automatic musical instruments and theatre organs and was the author of Encyclopedia of the American Theatre Organ of which the third and final volume had just been completed. An electrical engineer by training, Junchen was a pioneer in the use of solid-state relays for pipe organs and wrote the instruction manual for the first commercially available system.

Leonard Raver (1927-1992), recitalist, teacher, and organist for the New York Philharmonic, died January 31 of AIDS. A champion of contemporary compositions, he had premiered dozens of works for organ and recorded many of them. He had also been a member of the faculty at several schools including Juillard School and Yale University.

REVIEWS

Books


It seems rather roundabout to learn about a famous French organ from a book in Dutch which has been translated into and published in German, but, at least until we have its equivalent in English, this book is your best bet for learning all about Cavaille-Coll’s 1890 masterpiece in Saint-Ouen. The first chapter describes the development of the French Symphonic Organ beginning with the immense instrument in Saint-Denis. We are provided with drawings of the Barker lever, Cummins’ parallel bellows, and Cavaille-Coll’s divided windchests, technological advances which made the whole thing possible. This chapter also includes detailed stoplists of Saint-Denis (1841), La Madeleine (1856), Saint-Sulpice (1862), and Orléans (1880), and closes with a delightful engraving of the master himself at his desk, looking like a wise old frog!

Next comes a full history of Saint-Ouen, illustrated with breathtaking photographs. Then comes a chapter devoted to the history of the organs there before Cavaille-Coll arrived on the scene. Jean Titelouze was organist when Crespin Carlier was called to completely renew the old organ in 1599. Another state of the instrument was due to Pierre-François and Louis-Paul Dallery in 1838, which featured five manuals and a Pédale with Ravalement.

At last we arrive at the Cavaille-Coll instrument, starting first with the contract and proceeding to a detailed stoplist with comparisons to Saint-Sernin in Toulouse (1889). There are analyses of the proportions of stops of various pitches or of various families. Beautiful drawings show in detail the cross-sections; photographs and diagrams locate every stop knob and pedal control; the stop-action mechanism is accurately displayed in plan; the working of the couplers is discussed (for example, with all the couplers engaged,
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come shattering down. As they do, one is led to wonder where they came from in the first place. We were marveling at the sounds one could make on such low wind pressures as 1 1/2" or less, for example. Then we learned that the Schnitger organs, some of which had been "restored" to such gentle zephyrs of air, were originally on pressures as high as 4" and 5". We thought cut-ups should never exceed 1/4 mouthwidth, in order to have full harmonic development; apparently, however, Schnitger Principals had positively gaping cut-ups. Where did all these ideas come from? First we must recognize that a large part of the baroque organ world was closed off to us with the hanging of the Iron Curtain. For one reason or another the Schnitger/Netherlandish territory became a focus of our interest, and the southern Germanic regions were not given so much attention.

But now we are beginning to hear some of those southern baroque sounds, and it is becoming a little clearer where some of our neo-baroque inspirations came from. After all, people like Senator Emerson Richards et al., used to go traipsing about this country; perhaps some of the things they heard were applied by G. Donald Harrison or Walter Holtkamp.

In any case, this compact disk is an excellent sample of southern German baroque sounds. The Premonstratensian Abbey in Rot an der Rot, completed in 1785, is one of those beautiful Bavarian churches ablaze with golden sunlight streaming in the ample clear windows and bouncing off brilliant white walls. The ceiling is a gallery of brightly colored frescoes with dramatic figures vaulting through heavenly perspectives. And in the rear balcony is a lusciously ivory-toned organ case with rich but restrained touches of gilding. Its builder, Johann Nepomuk Holzhey, was born in 1741 near Ottobeuren and probably learned his craft from his uncle Alexander Holzhey. Later he was influenced by Karl Joseph Riepp, the famous builder of Ottobeuren and Salem, where Holzhey took part in building the choir organs. Among his more than 40 instruments are four three-manual organs for Obermarchtal, Neresheim, Weienau, and Rot.

In 1989, the Rot organ was restored by the firms of Klais of Bonn and Bier of Giengen. Bier is a pipe-making firm and they were responsible for restoring the existing pipes and replacing missing originals. Included with the CD is an excellent booklet of 28 pages with text in German and English and complete details of each register including the pipe scales.

The sound of the organ is quite wonderful. Its low wind pressure, 2 3/4", is belied by the bold and rather aggressive tone, especially when the Mixtures are blazing away. Franz Raml, who studied with Ton Koopman, is a fine player with much charm, and he has chosen some interesting and apt music to show us the character of the Holzhey organ. Both Georg and Gottlieb Muffat are appropriately represented, and a Carl Philipp Emanuel Bach Sonata fits the organ well. But perhaps most interesting of all are works of Johann Christian Kittel, Johann Melchior Dreyer, and Justin Heinrich Knecht. These men are close contemporaries of each other and of the organ, their dates spanning 1732 to 1824. The organ was installed between 1789 and 1793 into the case which had been completed a few years earlier. I think my favorite cut is Knecht's Cantabile in D Minor, a pretty melody played on a heavenly quiet combination but interrupted several times by some loud, raucous outbursts with brash upperwork. I do regret that we don't get to hear the Ondamaris in the Echo or the Tremblant doux.

Thanks to the composers mentioned, J. N. Holzhey, the firms of Klais and Bier, organist Franz Raml, and Coronata, we have a lively and lovely treat in this CD. I warmly recommend it.

George Bozeman, Jr., Deerfield, New Hampshire
The Methuen Memorial Music Hall is the site of an annual summer concert series from which live performances are presented on eight new cassette tapes. A schedule of concerts and the tapes are available from the address given at the beginning of the review.

One of the great musical pleasures of summer in New England is the series of organ recitals played by various organists of the great instrument in the Methuen Memorial Music Hall known as “the Boston Music Hall Organ” which was built in 1863 by E. F. Walcker of Germany for the Boston Music Hall and moved to Methuen, Mass., in 1897 and reconstructed by G. Donald Harrison for Aeolian-Skinner in 1947, now containing over 6,000 pipes.

Since 1986, splendid Dolby B tape recordings have been made which are now available from the Methuen Music Hall. Each tape contains a detailed program with notes on the organ, the hall, and the present specifications.

The first tape (C-1) includes music by Bach, Parry, Dienel, Bossi, Guilmant, Liszt, Manari, Beach, and Messiaen, played by Ann Labounsky, Roberta Bitgood, Bruce Neswick, Earl Miller, Bruce Adami, Allen Brown, Ernest Hoffman, Rosalind Mohr, George Faxon, Rodger Vine, and Thomas Richner. A detailed critique of each performance is impractical here but, overall, the organ is put through its paces and shown off to advantage by such a variety of selections and talents.

The second tape, (C-2) 1987, includes performances by Lawrence Young, Dana Robinson, Richard Konzen, Susan Armstrong-Ouellette, Charles Callahan, Jonathan Dimmock, Linda Lyster, and Ian Sadler playing music by Bach, Liszt, Reger, Hannahs, Vierne, Franck, Tournemire, and Parry.

The third tape, (C-3) 1988, contains music by John Knowles Paine, Franck, Fauré, Elgar, Bach, Guilmant, Boëllmann, Lemare, and Henri Mulet played by Steven Young, Earl Eyrich, Lois Toepffer, Philip Kenyon, Ruth Tweeten, Michael Kamiński, Grant Moss, Frederick Hohman, and Thomas Harmon.

Each tape runs from 75 to 80 minutes, recorded by Scott Kent for BMK Associates, Wilmington, Mass. Proceeds benefit the Music Hall Restoration Fund.

Albert F. Robinson, Peekskill, New York
Johnson & Son op. 577 of 1882, Westminster Hall, Baltimore, Maryland

ORGAN UPDATE

Johnson & Son op. 577 of 1882 has been restored and reinstalled in Baltimore at Westminster Hall, formerly Westminster Presbyterian Church, and for which the organ was built. Now a recital hall and function center for the University of Maryland School of Law, the building replaced in 1882 a former one which burned along with Johnson op. 187 of 1865. The congregation of prominent families disbanded in 1977. Buried in the churchyard is Edgar Allan Poe and other famous persons. The 1882 Johnson was electrified during the 1930s by William Bardroff & Son of Baltimore, thus destroying the original console, key action, and stop action. The organ was removed from the building in 1982 by the Andover Organ Co. with anticipation of restoration, a contract for which was signed in 1987. The organ was reinstalled with tracker action, a painstaking replica of a Johnson keydesk, and many repairs to damaged parts. The only changes were an increase in the Pedal compass to 30 notes from the original 27 (the Pedal clavier remains flat) and pitching the organ to A=440 Hz from the original A=459 Hz. Organists Margaret Budd, James Houston, Michael Britt, and Michael Gaffney played a dedication concert on November 17.

Fire destroyed the largest extant George Stevens organ, a 2-26 of 1873, and the very handsome First Congregational Church of Calais, ME, on February 21, 1992. The instrument was visited by OHS during the 1981 National Convention, when Charles Page played. Now, a 25-rank Stevens of 1852 remains as the largest. It was moved to Our Lady of LaSalette Shrine, Ipswich, MA, ca. 1975 but was left severely untuned when only a portion of pipes on one side of the divided chests were placed in a new temperament before the project was abandoned.

The 116-year-old, magnificent, Victorian Gothic Central Congregational Church in Fall River, MA, and its 1875 E. & G. G. Hook & Hastings organ, op. 806, have been saved from planned demolition by SAVE (Save Architecturally Valued Edifices) according to the February, 1992, issue of Historic Preservation News published by the National Trust for Historic Preservation. The organ, rebuilt to a 3m of 90 registers by Hook & Hastings in 1916 as op. 2388 (originally it was a 2-40), rises three stories within the 7-story interior. The intent is to establish a cultural and performing arts center utilizing the small parish house in the first phase of development while the building is stabilized. Fall River's devastated economy is demonstrated by a 15.6 percent unemployment rate which has remained constant over the past three years. Donations will be gratefully received by SAVE, P.O. Box 3526, Fall River, MA 02722.

The 1875/1916 Hook & Hastings at the former Central Congregational Church in Fall River, MA, is at the left. The 1855 Erben at St. Luke's Episcopal Church in Mobile, AL, has been moved within the church and cleaned by Patrick Murphy of Royers Ford, PA. His firm has incorporated into a new, 22-rank organ, the Swell division and console of the 1951 M. P. Moller op. 8319 built for St. Catherine of Sienna Church in Mount Penn, PA. Also, the firm has reinstalled following restoration the oldest known
Richard D. Pilcher organ at Zion Episcopal Church, Talbotton, GA. The 1-4 dates from 1850 while Pilcher was located in New Jersey and is described in 35:2:22.

Henry Pilcher organ at Zion Episcopal Church, Talbotton, GA. The 1-4 dates from 1850 while Pilcher was located in New Jersey and is described in 35:2:22.

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An 1887 George Jardine & Son 2-11 has been relocated from St. John's Convent in Middletown, CT, to the gallery of Trinity Episcopal Church in Myrtle Beach, SC, by the Organ Clearing House and J. Allen Farmer, Inc. Acquired and installed on a shoestring budget, the organ was cleaned and refurbished by parishioners as directed by John Farmer of Winston-Salem, NC. Work included removal of “slime green antiquing” from the oak and walnut cases. According to John Farmer, the Rev. Ladson Mills, Rector, resisted placement of an electronic in this new edifice, working with organist Kay Sloan to secure the Jardine on short notice — it was removed July 4, 1991 and installed in August. In each manual division, the organ has five ranks deployed 8-8-8-4-2 (including an Open Diapason in each), a separate 8' Stopped Diapason Bass in each division, a blank 8' Trumpet toehole in the Swell, and a 16' Bourdon in the Pedal.
A New Translation of Albert Schweitzer’s Organ Essays of 1906 & 1927

Preface by the Translator

This translation was made in 1986 at the suggestion of Susan Friesen, who was then editor of The Tracker. Susan had sent to me for review William Turner’s version of the two Schweitzer essays on organ music and design, published by the Organ Literature Foundation in 1984, and I gladly accepted. But once I had compared the German original with the translation, I concluded that a mere review could not be adequate to the task. A companion document would be required, listing the passages that were either overlooked or not accurately rendered and giving reliable versions for them. I suggested making such a guide, but to my relief Susan replied that a new translation, to be published by the Organ Historical Society, would be preferable. Indeed, making a new translation is less complicated than revising an existing one.

Relying on my wife and her native German when perplexed, I learned that Schweitzer’s usage is quite formal and academic, as befits his profession and his time, with further peculiarities due probably to the idiom of the Alsatian lands on the frontier between Germany and France. I gratefully acknowledge here the help I received from Lore Ferguson in making this translation.

Two friends, both of them distinguished players and students of the organ, read the translation and helped me with their informed comments. Prof. Fenner Douglass also suggested a possible correction to the original (note *). Dr. George Becker is the one who years ago introduced me to the world of the organ. He kindly contributed a preface to this translation with an appreciation of Schweitzer as physician, philosopher, and musician. I gladly renew here my thanks to them for their help and encouragement.

Schweitzer’s views on organ design and performance are bound to reawaken for the reader echoes of old debates: as to the merits of the Orgelbewegung and Schweitzer’s role in it; and the music of Bach in relation to French or German symphonic organs. For my part, I must say that Schweitzer has perhaps been credited — or charged — with things he would never have countenanced, much less endorsed. In my local experience, I have seen a large organ, built in Germany in 1949 ostensibly according to Schweitzer’s advice, by a firm whose earlier work he had praised. This organ had pitman chests and electropneumatic action, and it was installed in two chambers. When the organ required rebuilding about 20 years later, the same firm installed slider chests, but still used electric action; the two divisions remained in chambers, while the Great and Choir were aligned, caseless, across the chancel window. Nevertheless, local tradition still celebrates the guidance of Dr. George Becker and Charles F. Fisk, led Mr. Ferguson to undertake the translation into English of Dom Bédos de Celles’ L’Art du facteur d’orgues, which was published as The Organ-Builder by the Sunbury Press in 1977.

The 1906 essay is a manifesto. Writing in German, Schweitzer decries the smugness of German organists and their delight in the chaotic complexity of German organ design, while citing Cavaille-Coll’s instruments as models of rational design and French organists as masters of refinement and skill. Denouncing the growing influence of commercial motives, he champions quality over quantity as regards the stopist, the accessories, and the overall design. He emphasizes the preeminence of musical values in organ design. Here again he finds his model in France, in the Paris school of organists and the firm of Aristide Cavaille-Coll, for here technical innovation and industrial productivity are subordinate to musical concerns. In contrast, says Schweitzer, industrial competition has led German builders to promote design features that disfigure the musical character of their instruments and the performance practices of German organists. We may disagree with Schweitzer’s choice of examples, but we cannot dismiss his principles: highest quality in materials and workmanship; profit and technology subordinate to musical requirements; freedom and convenience for the performer; and musical integrity as the measure of all.

The “Afterword” of 1927 surveys the work of the Organ Reform Movement against the background of post-war Europe. In contrast to the traveling virtuosos he decried in 1906, Schweitzer sees his own concert tours as an occasion for inquiry and teaching. He states with pleasure that the norms he championed in the 1909 Regulations for Organ Building are “on the verge of winning out.” Organists and scholars everywhere are studying and restoring “old organs,” and Schweitzer’s 1906 essay is being reprinted, “in a sense documenting the start of the struggle for the genuine organ.” While time has made us skeptical of his assurance, we can appreciate his honesty in documenting the development of his thinking in the intervening 20 years. He no longer recommends differential wind pressures, but he still finds the slider chest the only design that yields good musical results. And he still sees tracker action as “ideal,” regardless of the size of the organ. Where the 1906 essay discussed the vital importance of the Swell division, the “Afterword” does the same for the Positif, again for the sake of the music. Where reed stops are concerned, Schweitzer finds his model not in Cavaille-Coll but in “the beautiful [German] reed stops of 1860.” (The reason is that for Schweitzer Bach cannot be played using French reeds.) And he further develops the need for rational console design, as always for the sake of the performance.

These two essays were published in English by Charles R. Joy, in his book, Music in the life of Albert Schweitzer, with Selections from His Writings (New York: Harper/Boston: Beacon, 1951). I hope that by making a new version available in these pages of The Tracker, I have done a service to readers who were uncertain of what Schweitzer has to say concerning the organ, and to those who were unacquainted until now with his work in defining basic issues of organ music, performance, design, and history.

Charles Ferguson teaches French and Italian at Colby College in Waterville, Maine. As a member of CHS he has reported in The Tracker on foreign periodicals, and he was Registrar for the 1981 Convention in Maine. His barn sheltered E. & G. G. Hook’s opus 226 (1857, 1-8) from 1967 to 1981. The experience of moving and maintaining that organ, and the encouragement of Dr. George Becker and Charles B. Fisk, led Mr. Ferguson to undertake the translation into English of Dom Bédos de Celles’ L’Art du facteur d’orgues, which was published as The Organ-Builder by the Sunbury Press in 1977.

Charles Ferguson
Foreword to the Translation

by George E. Becker, M. D

The very first organ recordings that I can remember were those of Albert Schweitzer playing works of Bach on the organ at All Hallows Church, Barking-by-the-Tower, London. The G Minor Fugue, the Fantasia and Fugue in G Minor, the Toccata and Fugue in D Minor, the Prelude and Fugue in C Major, and others sounded frequently from the heavy but fragile 12-inch discs via a frequently sharpened cactus stylus, through the heavy tone arm and sound chambers of the Victrola that graced our sun room. In 1945, I purchased (for $3.00, the savings of several weeks) Volume II of the Bach Organ Works edited by Widor and Schweitzer. My curiosity about Albert Schweitzer whetted, I soon learned that he was not only an organist and scholar, but also a physician and surgeon. Since those days the old maverick with the kindly countenance and the bushy mustache has been a hero for me. In psychiatric jargon, he has been a rôle model.

In The Quest for the Historical Jesus, Schweitzer sets forth his concept of transient truth versus permanent truth. The former is temporal and, as such, inextricably bound to Jesus in time. The latter is free from temporal constraint. These concepts apply to all truth, knowledge, science and understanding: time brings discernment. In Deutsche und französische Orgelbauten und Orgelkunst (1906; 1927), we find both transient and timeless elements. Schweitzer (born January 14, 1875) was limited by his perspective, despite his vision. Nonetheless, that vision was thoroughly remarkable, and Charles Ferguson's translation makes accessible to the English-speaking reader the wisdom of the good doctor.

The language of the organ reflects our strongly anthropomorphic relationship with the instrument: it must have good breathing in order to speak well; pipes have bodies with feet and toes, mouths with lips, and sometimes ears and beards. The varieties of their speech are as protean as the human voice itself; and like a living organism the organ has traditionally benefited from housing of its own. Schweitzer studied the organ with the insight and understanding of the physician he was to become. He promotes tracker action as requisite for a "truly living relationship" between the organist and his instrument. Similarly, he endorses the concave pedal keyboard, for "anyone who has thought about radial foot movement in pedal playing must call that design the only sensible one." (This turn-of-the-century biomechanical wisdom may not persuade those who today champion the flat pedal keyboard and the technique it presumes. I think Schweitzer's pedal point is well taken.) He urges builders to follow the player's convenience and physique in locating drawknobs and registration aids, disregarding symmetry. And we can appreciate a touch of healthy hedonism in the doctor's preference for "grasping a genuine drawknob" to pressing a piston or tilting a tablet.

These two essays contain at least a few "transient" truths. The most striking is Schweitzer's 1906 endorsement of the differential wind supply. In his 1927 Afterword, however, he withdraws his endorsement, still recognizing as always "the advantages of the slider chest with respect to tone production." Some would challenge his contention that "foundation stops and mixtures should be winded on pressures of 70 to 85 mm," although such pressures are sufficient in most instances. On the other hand, many of his observations seem self-evident to us today. The tonal character of an organ, he writes, is "essential." Good tone depends in turn on broad, gentle foundations with a full, "healthy," rich, and refined tone. To these are added beautiful mixtures, and reeds which (in Widor's words) "instead of dominating the full organ fit into the tonal structure of foundations and mixtures touching them with gold." What counts ultimately, Schweitzer tells us, is "not the number of stops, but their quality."

A sense of humor will be useful while reading these essays. Schweitzer deals at length with rational console design and with the arrangement of combination pistons in particular. He dismisses the tradition of stop-pulling assistants as "voluntary servitude" and asks rhetorically, "Who has ever performed with assistants without having something go wrong?" Surgeons, of course, quite regularly perform with assistants. The record shows that at least in the operating theater Dr. Schweitzer frequently operated with assistants without having something go wrong. On the other hand, his recordings show that Dr. Schweitzer rarely performed without assistants having something go wrong. He was a mature musician, a splendid organist, and a man of vision. Given his bon goût, what matters an occasional wrong note?

Like Widor, Schweitzer decried the organ virtuoso. His advice on performance suggests the spirituality that suffused his own playing: ". . . The chief aim is serene articulation, allowing the musical design to take shape before the listener in all its greatness. My impression is that French organists even sit more calmly at their consoles than Germans do . . . the organ itself must speak. The organists and his interpretation must vanish behind it, s'effacer, as the French say."

Alsation by birth, Schweitzer acknowledged himself "the product of both the French and German schools." He envisioned "a balance between the two traditions." For Schweitzer, Aristide Cavailles-Coll was "more than a great organ builder like Silbermann, he was a genius of organ building." Today a few more names must be added to the list of "genius" organ builders. One or two are Europeans, and one or two are Americans. Schweitzer's words echo his spiritual commitment to the preservation of old organs and the creation of worthy new ones: "We work for the future. May we do so in the right spirit." In these challenging little essays are to be found a number of lasting truths touching upon organ design, organ construction, organ playing, and organ philosophy. There is no organ builder or organ player who cannot learn from this little masterpiece.

San Francisco, 1989
Organ Music and Organ Design in Germany and France

by Albert Schweitzer, 1906
Translated by Charles Ferguson

However, the essential artistic principle is different as well. The artistic essence of an organ, and to an even greater degree that of all organ music, is determined by the progression from piano to forte and from forte to fortissimo, then back to the original tone color. In German organs, the crescendo roller has become dominant. It governs the organ, as shown by the playing of our virtuosos; and it governs organ literature and composition, as a glance at a modern work will show. In other words, we crescendo by adding stops one after the other in unbroken succession, and they all sound on the Great manual. We thus give up the artistic individuality of the various divisions, taking for granted that every crescendo means a change in tone color. We accept the monotony made unavoidable by the organ builder, who saw fit to build into the roller a sequence of stops that, once determined, remains the same for ever more. We accept the inability to choose when to introduce 16', 8', 4', 2', mixtures, or reeds into the tonal structure. We submit to the eternal slavery imposed by the builder when he designed the crescendo roller, and we sacrifice all freedom in the performance of a crescendo, where art and freedom are so intimately related. And all this we may have the convenience of making crescendi by simply operating a roller or a pedal.

The French organist does otherwise: he chooses the other approach. He sacrifices the ability to perform a crescendo with a single motion, accepting the necessity of making several. He retains, however, the freedom to add stops and reach fortissimo in whatever sequence and manner seem indicated by the character of the crescendo at hand.

On French organs, crescendo is based essentially on coupling and uncoupling the manuals. Only thus are the three personalities, the organ's "holy trinity," shown off to good advantage. In order to achieve this, however, the organist must not be limited to coupling manuals II and III (Positif and Récit) to manual I; he must have the unlimited possibility of taking any manual as his point of departure and coupling the other manuals to it. So it is that in all French organs, manual I - called Grand orgue - is a neutral, available manual, a coupling manual. The stops it contains (the stops drawn on manual I) speak only after the pedal marked "G.O." (Grand orgue) has been depressed. Thus it is possible to couple first the Récit and then the Positif to manual I, only then adding the Great division by means of the "G.O." pedal. The divisions may be brought on in the order of I-III, II-III, I-III-I, I-III-II, or our usual I-II-III, as preferred: the full range of possibilities is available.

The same is true of uncoupling. The player is free to end up using only division I, II, or III, without his hands leaving manual I.

Each division has an "Appel des mixtures et des anches," a vent pedal that brings on the mixtures and reeds selected by the organist and drawn in advance. Thus the player has at hand (actually, at his feet) the means to add mixtures [and reeds], in the desired order, to the foundations of all three divisions, whether (1) before, during, or after coupling; or (2) in alternation with coupling.

Three couplers and three combination pedals thus represent a wealth of dynamic possibilities, and they offer the advantage of allowing the appropriate dynamic change to be made at a particular moment in the music, on a characteristic, accented beat. That is impossible with the roller, because the stops are added one at a time and not in groups, which requires a certain amount of time.

A third dynamic resource, complementary to the other two, is the Swell division on manual III. In French organs, the Swell division is larger than division II. The swell box contains not just soft-voiced little stops, but a complex of sounds that is considerable in size as well as intensity. Insofar as possible, the different choruses are represented at every pitch, and as fully as on manual I, almost moreso. That means that in such a Swell division there is really something to swell: the shutters don't just allow a certain shading or nuance, but a raising of the entire organ to a certain dynamic level. I remember one of Cavaillé-Coll's organs where the swell box

*According to Fenner Douglass in a letter of 1 Sept. 1988 to the translator, this reference may be to Saint-Eustache (1844), where the Daublaine-Calinet organ had two pedal keyboards: one French and one German.
on manual III could modify the sound of even the full organ with all couplers on.

Dynamic control in French organs thus depends on couplers, vents for mixtures and reeds, and the louvered swell box.

An example: We have coupled manual III (swell box closed) to manuals I and II, with no stops speaking on the latter. On all three manuals, principals 16', 8', 4', and 2' are drawn; mixtures and reeds are prepared. Likewise in the Pedal. We couple manual II to manual III, and at the next turning point in the music we depress the "G.O." pedal, thus adding the principals of manual I. Next we couple the Pedal to the manual divisions, as required. Now how can we move without a "hitch" from foundation tone to mixtures and reeds? By adding the mixtures and reeds to manual III first of all. With the swell box closed, the change is hardly noticeable. Now let's slowly open the swell box. The sound of the mixtures and reeds flows into that of the foundations and blends with it. This is the decisive moment in the crescendo, the fulfillment of the mixture and reed sound that was only a potential resource as long as the swell box was closed. Since every chorus is represented in the Swell division, the full organ has been present since the moment the mixtures and reeds were added. The rest is merely a process of unfolding. The subsequent addition of mixtures and reeds on manuals II, I, and Pedal, plus the sub- and superoctave couplers, does not alter this tonal structure at all; it merely intensifies it.

This is the context in which French dynamic markings are to be interpreted. The crescendo/décrescendo signs concern only the operation of the swell shutters, even when the player is using manual I. Specific instructions are given at the beginning of the piece whether the principals (Jeux de fonds, or simply Fonds) are to be supplemented by reeds and mixtures, and if so, which ones are prepared on the several manuals. Their entrances are then expressly indicated, as are the couplings and uncouplings of manuals. A brief "Crescendo poco a poco" ending in fortissimo means that once the player has brought manual III to full power with the foundations of the other two manuals, he is to add the mixtures and reeds of the other manuals and the pedal, on decisive, accented beats. Only this last crescendo corresponds to our roller swell. The signs, < and >, no matter over how many measures they extend, always refer to the swell box.

I emphasize this fundamental difference in dynamic markings because I have found that almost all German organists have the habit of performing crescendo and decrescendo with the roller if they are playing on manual I, thereby utterly destroying the effect desired by the composer, who didn't reckon with changes in the tonal color.

The basic assumption of the French system provides all registration aids as pedals. French organs have no thumb pistons below the manuals. Which system to choose?

It's hardly been five minutes that I've been sitting next to papa Guilmant at the beautiful organ in his home at Meudon, when he asks me (taking up the conversation where we left off last time), "Are they still making thumb pistons in Germany? I just don't understand. Just look how easy it is when everything's within reach of your feet." And the clever little feet silently depress couplers and combination pedals, and in a twinkling release them again.

Another day, for the twenty-fifth time, Widor goes at the same topic. "Tell my friend, professor Münch in Strasbourg, to show me a place in a Bach prelude or fugue where he has a hand free at the right moment to reach for a piston! Let him name someone who can play on a manual and at the same time have a thumb free to press a piston on the keyslip."

I don't answer, because [I know that] the first German organist I run into a few weeks later, if asked the same question, will inevitably reply, "The French are behind the times. We used to have pedals, too, but now we've got thumb pistons!"

It's a matter of habit, more than anything else. The French organist is bewildered by thumb pistons, and the German can't find his way among pedals. The question, however, is fundamental: which are we more likely to have free, a hand or a foot?

In terms of principle, the decision must go to the French. We hardly ever have a hand free, but very often a foot. Experience demonstrates this principle. Listening to German organs, I always hear the hesitations, the unrhythmical delays, arising from the player's inability to find the musically appropriate moment to press his thumb pistons. I know virtuosos who avoid that difficulty by retaining two assistants to push pistons for them. The result, of course, is voluntary servitude. What's more, who has ever performed with assistants without having something go wrong? All the complications brought about by the piston system become clear when we have a chance to observe the opposite system. Just watch Guilmant, Widor, Gigout, or Vierne at the console! They don't need helpers. They do everything for themselves, silently, calmly, and with never a mistake. Nobody who has seen that will ever again have doubts as to which system will win out.

I myself must admit, being familiar with both kinds of organs and accustomed to both systems, that the registration aids on French organs are simpler, and therefore better. First because all their organs are similar. The three pedal couplers are below and to the left, the manual couplers in the middle, next the octave couplers, then usually the swell pedal, and finally the venti pedals for mixtures and reeds. The sequence is always I-II-III. Before Vierne was appointed organist of Notre-Dame, the President of the Republic would order Saint-Saëns to play the Cathedral organ for official occasions. It didn't take him five minutes to become just as comfortable there as he is at the organ in Saint-Séverin, where he gives his marvelous improvisations.

In our country, every organ is different in the arrangement of its registration aids. In order to play successfully, the organist must spend several days getting accustomed to the console. One might accept this diversity if it were only the chaotic stage out of which the fully developed model for organs might emerge. This is not the case, however, for behind those differences there is neither rhyme nor reason, but only coincidence, habit, and willfulness. There can be only one truly complete organ type. Nevertheless, instead of moving towards it, we remain mired in chaotic diversity and still claim that's how things must be.

Now German art, specifically music, owes infinitely much to the era of small, independent states, as we discover only once we have lived in countries that have never known that stage of development. For organ building, however, that era was harmful. May France prove to be the unifying force for good in this respect, as she once was, in history, for evil.

The advantage of French organs that makes the most immediate impression on the player is the possibility of controlling the color and volume of the bass at any time through coupling and uncoupling manual divisions and Pedal, without changing manual registrations. This seems almost more convenient than the ability to couple manuals at will, although the most serious shortcoming of our modern consoles is that they make manual coupling and uncoupling -- controlling the collaboration among the three personalities that compose the organ's unity -- the exception rather than the rule.

Who doesn't sigh during almost any Bach piece because our organs don't allow a bass line that can be light or full, as desired? Who doesn't suffer while listening to certain pedal points, especially when the left hand is active in the bass registers? On French organs there are no such difficulties. I often listen to Widor as he tries out the great pedal point in Bach's F major Toccata without altering the manual tone color. Just hear him command the bass notes in the G minor Prelude! Before the pedal point begins, five quick motions release all five pedal couplers. Then, towards the end of the held note, one after the other is put on, each on a strong beat so as to reinforce the accent: manual V, then IV, then III, then II, and finally I! The same operation is repeated six or seven times over, but I must confess that apart from Widor's performance, I have never heard the G minor Prelude without "complaints" in the bass.

Mastering the couplers and combination pedals involves, of course, learning a whole new technique, almost more difficult in its own way than pedal keyboard technique itself. How many times does a pupil play a transitional passage under Guilmant's, Gigout's, or Widor's stern gaze, until he finally manages to depress the coupler or combination pedal right on the split second and get ready for the next one? The decision later, and definitely, accurately, without contortions, without its affecting his playing in the slightest! For almost every piece, those passages where the succes-
ension of motions reaches a certain degree of complexity must be especially learned. I was standing beside Widor while he worked out [the performance of] his last symphony, the “Romanesque Symphonie.” How many times he went over certain passages until the couplers and combination pedals obeyed him as he wished!

But once the appropriate motions have been learned, then we are completely free and in control of the dynamic changes we desire to make. Stand beside Vierne, the young organist of Notre-Dame, who has scarcely a glimmer of eyesight, and watch as he takes his glorious instrument from pianissimo to fortissimo with never an assistant, as if his feet had learned to see!

An organist once objected to me that only the more talented pupils could learn that second “pedal technique.” However, Guil­mant and Gigout, the mentors of the new generation of French organists, always say that even an average pupil overcomes those difficulties, if he works diligently.

What is it that keeps us from combining French and German designs in one organ, providing the main couplers and the combina­tions as both thumb pistons and pedals, so that hand and foot controls correspond? Then the organist could always use whatever extremity happened to be free. For example, he could put a coupler on using his hand, and then — since it was automatically put on at the pedal as well — he could put it off using either his hand or his foot, whichever happened to be more practical. We boast, and rightly so, that nothing is impossible with our pneumatic action. An organ builder who undertakes to provide the player with duplicate registration aids will cut the Gordian knot that endless debate has not managed to untie. Such duplicate controls can just as well be provided in any organ, using simple, straight mechanical action and no pneumatics at all.

The question whether or not to use crescendo rollers should be solved in like manner. I fully appreciate the advantages of a roller, for example when accompanying oratorios with large choruses, and I admit that on certain occasions unique effects can be obtained with a roller. But I do not accept its domination, especially when the organ has fewer than thirty stops, in which case a roller is almost barbaric in its effect. I also fear that it has not had the best influence on the artistic sensibilities of our young organists and most espe­cially our composers for the organ. In both cases, honest, simple, creative registration has been neglected through a temptation to consider the organ an instrument to be played “loud and soft,” not as a manifold unity in which every dynamic change must result from the collaboration of specific tonal elements. I believe that a survey among experienced organists would show that many have aban­doned their former prejudice in favor of the crescendo roller, for artistic reasons.

Here again, let’s follow one course without abandoning the other. Let’s keep our crescendo rollers, but let’s also have French registration aids, so that we’re not dependent on the roller alone. Then the harmful influence it has had on the performance of our young organists and on modern compositions will spontaneously decline.

Surprisingly, our German organs lack the very feature we most urgently need. We have crescendo rollers, free combinations, chorus and Tutti controls, etc.; in short, every means for substitut­ing one registration for another. We have, however, no way to retain a given registration while adding stops on the various manuals as required. This accessory, although most elementary, and first among those required by the music, is simply not to be found.

It is downright deadly to discover, as often happens, that the manuals are not even independent of each other: the piston that operates the free combinations, or the ones for Tutti and Mezzo­forte, affect all three manuals and Pedal! (This for the sake of simplicity; otherwise we’d have four pistons instead of one, for each function.) Our apparent wealth of resources is in reality a terrible poverty. Impossible to use the Pedal with manual III when Tutti is on, because the Pedal is on Tutti as well. A whole book could be written about the inadequate Pedal divisions in our modern organs: countless pistons gleam at us promisingly, while this whole display is at bottom only a gleaming poverty, because it does not contain the resource that are simple and thus artistic.

In order to remedy this weakness, organ builders offer us a scaled-down Pedal that comes on automatically and cancels the other one whenever we move to manual II or III with the Tutti on; but this is just a pitiful emergency measure, emphasizing the shortcoming rather than providing a solution for it. The honest organist wants the Pedal he wants and needs, not the Pedal an organ builder sees fit to prescribe for use with manual II or III.

So the issue is making it possible to add and remove new tonal structures. Here again, I believe a compromise between the French and German models will prove best, namely a compromise between our free combinations and the French ventil pedals for mixtures and reeds. The French scheme has the disadvantage of allowing control of mixtures and reeds only; and the German scheme cancels the existing registration when the free combination is used. Now since anything is possible with pneumatics, let’s design a scheme whereby the registration selected on the free combination either replaces or supplements the registration already drawn, as the organist prefers, and is canceled by operating the same piston or pedal again; the player having made this choice beforehand by depressing or not depressing a piston/ pedal that retains or cancels the original registration. Thus we would have, as resources for a medium-sized organ:

Pedal couplers, manual couplers, sub- and superoctave couplers, reversible free combinations as described above for each manual and the Pedal, and the crescendo roller. In addition to the couplers, a ventil pedal, similar to the French “G.O.,” should be added, controlling the stops on manual I.

Following years of reflection on French and German organs and constant efforts to achieve a constructive compromise between the two, as well as valuable suggestions from stimulating conversations with organ builders at home and in France, this model has im­pressed itself on me. Think through these simple resources, and you will find that their richness stands in inverse proportion to their simplicity (sic, for “complexity”). Everything that can be done on a French or German organ can be done on this one. Bach, César Franck, Guil­mant, Widor, and Reger can all be played on it.

Of course, objections will probably be raised against the simplicity of this organ, because, despite a few warning voices, complexity in organ building has practically become an obsession with us. Unless an organ (console) looks like the switching room of a major railroad station, a certain class of organists automatically consider it worthless. They would pile up a half-dozen free combina­tions, even if they must be installed on a board behind the player’s back, plus pistons for choruses, Tutti, and combinations, and all in the greatest possible numbers. I must say I’ve never heard any better playing on such complicated organs than on others; on the contrary, I usually observe that the richer the resources in their redundancy, the more “hitches” in the performance.

I’d rather not mention our Echo, or remote, divisions. They have nothing to do with the organ as such, and they are dangerous gadgets that ruin the taste of the public, and what’s worse, that of the organist.

The “Organola” is the Original Sin of our modern organ builders. When will enough voices speak out in public describing this device for automatic playing as what it is: an insult to organ music? For me, the Organola has only a social significance: in the future, cripples and disabled veterans can be provided with jobs as or­ganists.

How far taste has already gone astray is shown by the mere fact that our organ builders dare to offer such insignificant objects as Echo divisions and Organolas!

It’s ludicrous to see how modern design for small organs means little more than overloading them with thumb pistons. On organs of ten or twelve stops, we find combinations for Piano, Mezzo­forte, Forte, and Fortissimo! In their heedless laziness, our organists are straying far from thoughtful registration.

It almost looks to me as though we were all deceived by the mirage of the “concert organ.” What in the world is a concert organ? Are there two kinds of organ? Or isn’t there just one best kind of organ, and isn’t the best just good enough for church use? What would old Bach say if he heard our distinctions? What would he say if he knew that we distinguish between organists and organ vir­tuosi? Is there anything higher than being a “good organist,”
aware that he is not seeking renown, but instead hiding his per­sonality behind the objectivity of the sacred instrument, letting the organ speak as if spontaneously, ad majorem Dei gloriam?

“Just imagine,” Widor once said to me, “I’ve been insulted. A magazine has called me an organ virtuoso. But I’m an honest organist. An organ virtuoso is only an organist grown wild.”

“Concert organs” and “organ virtuoses” are practically unknown in France, and for that we have Aristide Cavaillé-Coll to thank. He was the creator of the simple, fully-developed French type of organ. He was more than a great organ builder; like Silbermann, he was a genius of organ building. He is unforgettable, and I can see him still with his little fez and his honest, kindly eyes, so full of intelligence and art, sitting next to Widor on the organ bench at Saint-Sulpice every Sunday and running his hand over the console of his favorite instrument. Several German organists have taken offense at the assertion, in my French book on Bach, that Bach would recognize his ideal organ in the type developed by Cavaillé-Coll, rather than in our instruments. Since I steadfastly maintain that assertion in the German and English editions soon to be published, I should like here to justify it and open it for discussion.

The measure of any organ, the best and only measure, is Bach’s organ music. We must apply that statement to organ building and not constantly imagine that Bach would toss his wig in the air for delight with our thumb pistons, and having caught it again, would sit down for instruction from a modern virtuoso in what a modern organ can “get out of his music.”

Having a mind that went to the heart of the matter, he would ask, “What kind of action does your organ have?”

Now the practical advantages of tubular-pneumatic action are obvious: light, responsive touch; simplified design; unlimited possibilities for accessories. But are they advantages from the aesthetic standpoint?

No. Our tubular-pneumatic action is lifeless precision. Motion is transmitted by compressed air alone, and the lively elasticity of levers is absent. No springs can replace the direct, elastic connection provided by levers. The player must concentrate all his effort on disguising the lifeless precision of the action. It takes an artist to play well on a good pneumatic action. Walcker and Sauer, to name only two of our most outstanding builders, design actions that are genuine masterpieces.

If we then consider the average action among the many pneumatic designs, we find poorly-regulated keys, lacking dip, free travel, and pluck, making the simplest finger substitution risky because the neighboring keys speak at the slightest touch; and pedals that the best organist finds impossible to play cleanly and correctly. Considering those average pneumatic actions that leave you despairing and excessively nervous as you quit the bench, I wonder where our pneumatic actions are concerned. No organist wants mechanical action any more.2 And yet, how many organists played cleanly and well on their old tracker organs, while their playing on the new action is full of blurs! But they’re so proud of their new actions; and although they don’t realize it, their playing is sloppy because they’re not up to the demands of pneumatic action.

I believe that here in Germany we have gotten over our blind enthusiasm for pneumatic action and are beginning to see that from the artistic standpoint pneumatic action is only an emergency plan for situations where tracker action cannot be used. With tracker action, the finger feels a certain resistance exactly when the pipe is going to speak: this is the pluck point. The depressed key tends to rise beneath the finger, and at the slightest hint of release its balance causes it to return, raising the finger as well. The energy of the key cooperates with the player’s will! Even an average organist can play on tracker action without blurring. With pneumatic action, cooperation from the key is absent. This makes playing worse rather than better, and the slightest error becomes obvious.

Only with tracker action does the player enter into a truly living relationship with his instrument. With pneumatic action, he corresponds with the organ by telegraph (the Morse system also depends on a spring-loaded key). The action in the organ at Saint-Thomas in Strasbourg is well over a century old, but it is a delight to play a Bach fugue on it. I can think of no other organ that plays so clearly and precisely.

I need hardly mention that pneumatic action is affected by the slightest thing. Once, between the final rehearsal and the performance, the organ builder had to be summoned by telegraph because something had gone wrong with the pneumatic action. He remedied the defect. Triumphantly, he showed me the culprit: a grain of sand from the ceiling. Just a grain of sand!” “That’s the worst part,” I replied, “It only takes a grain of sand to cause such a disturbance. If it’d been an earthquake, I wouldn’t have said a word. But even then, you’ll see, the old tracker organs will survive the end of the world, and there they’ll be for the angels of the Last Judgment to play the Gloria on.” He was so flabbergasted at this “inversion of values” that he even forgot to trot out the old saying about summer heat that’s usually used to condemn tracker action.

“But pneumatic action is so light!” The speaker was a colossus who could perform as the strong man at any fair.

Our organ builders know perfectly well that good tracker action is better than pneumatic for smaller installations, and they admit as much. But pneumatic is simpler and cheaper to build. And circumstances force them to choose the cheaper way.

French pneumatic action, based on the Barker lever (in use now for nearly sixty years), does not offer that advantage: it costs about half again as much as our tubular-pneumatic action. It is, however, more artistic and more elastic, since it functions with a pneumatic lever, and thus in a way retains all the artistic advantages of straight tracker action in the transition to pneumatic. Whenever I play a Cavaillé-Coll organ or a fine one by Merklin, in Paris, I’m delighted all over again with the flexible, reliable precision of that action; and it’s always an effort for our organs to be pneumatic once again. But in this country, price considerations decide every issue.

Generally speaking, we could learn a great deal from the French concerning the details of console design. Their keys are slightly smaller than ours, those in the upper manuals are cleverly rounded, and the manuals are closer together than ours. Everything has been provided to foster precise legato playing and easy, accurate movement from one manual to another: those are, of course, features that Bach considered essential. And those French pedals! Of course, they cost about twice what ours cost. But what perfection! A radiating, concave pedal keyboard, recently extended to G, and springing that is nearly ideal. Our requirements are far less exacting.

The concave pedal keyboard has not yet won out in this country, although its advantages are plain to see, and anyone who has thought about radial foot movement in pedal playing must call that the only sensible one. I nearly made an enemy of an organist friend when I urged him to include concave pedals in the rebuilding of his instrument. I had to promise I would replace them with a flat keyboard if after a year he was not convinced that the innovation was practical.

When I was taking one of our most prominent builders to task for exporting only fine, concave pedals while building flat key­boards for the German market almost exclusively, he replied, “But I have to build pedals like that abroad. Nobody demands them here in Germany, and since lots of experts have never set foot on a curved keyboard, I’d better not take the initiative.”

In a word, it’s easier to play well on a French organ than a German one. The sheer practical sophistication of the design spares us many hazards that face us here at home. We pay more attention to outward sophistication, intended for the eye. Instead of drawstops, we’re developing a preference for stop tablets; we add decorative thumb pistons and take delight in typing, instead of grasping a genuine drawknob for a stop or a coupler.

I had just finished a Bach fugue on a marvelous old Silbermann organ and was still spellbound by the magical tones of the old mixtures, when my companion — who had had “his modern organ” for two years — , “It must be unpleasant to play an organ that doesn’t even have stop tablets.” In his indignation over the obsolete drawstops, he hadn’t even heard the organ!

I’d like to question whether we haven’t allowed the visible changes in our consoles to distract us from the essential, which is
the tonal effect. Have the developments in organ building been beneficial to the tonal results?

No, not always! Our organs are “stronger” but no longer as beautiful as the old ones. Our old organs, even the ones built only twenty years ago, are more beautiful and more artistically voiced than the ones built today.

I’m still amazed by the fact that laymen noticed the change before organists did. Every now and then, after an old organ had been replaced with a new one, music lovers eventually came to me and ventured the modest observation that “the old one almost sounded better.” This realization is very long in coming to organists. We must recover from the innovation delirium before we can regain our hearing.

One of the reasons why tone has not benefited from recent inventions is that chief among the latter is the electrically driven wind supply: providing unlimited quantities of wind, it naturally led even the most sensible of us down the wrong road. We began to confuse tonal volume with tonal richness. On old organs, the wind had to be used sparingly. Once we no longer needed to do so, we laughed at the narrow wind passages our fathers built, our wind supply: providing unlimited quantities of wind, it naturally led even the most sensible of us down the wrong road. We began to confuse tonal volume with tonal richness. On old organs, the wind had to be used sparingly. Once we no longer needed to do so, we laughed at the narrow wind passages our fathers built.

For twenty years, the age of invention in organ building, will not go down in history as one of thirty. Error in person could not do better at self-portraiture.

The sobering up has begun and is progressing. But how long will it be until we strive for tone quality alone, forsaking loudness, that poisoned gift of the electric blower, and return voluntarily to the artistic limits once imposed on us by the difficulty of raising the desired amounts of wind?

A fat person is neither beautiful nor strong. In art, beauty and strength are just form, with the perfect interplay of muscles. So, in time, we shall leave behind the modern organ with its inflated wind system, in order to seek the rich, full Pleno only in the blending of traditional, distinct, and artistically-voiced stops. We shall give up the attempt to “fake” a Pleno. There can be no deception in art, for art is truth.

But even had we had the artistic vision not to be led astray by the increased wind supply available, our organ builders would have been forced down the wrong path nevertheless. The whole issue is a question of money. Our builders were faced with the necessity of developing inventions that made it possible to cut prices, in other words to save competition. Everything else — purely artistic problems — had of necessity to take second place. The last forty years, the age of invention in organ building, will not go down in history as the great years of artistic progress, as many of us think. The caption will be: “Struggle between commercial and artistic values. Victory of the commercial over the artistic.”

Any firm that gave artistic considerations greater weight than commercial ones was doomed from the start. During those years, we organists were seized by an innovation mania that demanded obvious, history-making, money-saving discoveries. Our builders had to follow that trend, although many of them, I know, were privately furious.

And so we arrived at the factory organ, the good old factory organ. Whatever art goes into building them we owe to a spirit of sacrifice on the part of our builders: even at those reduced prices, they did the best it was possible to do, and were satisfied if they could just stay in business. In the judgment of history, their honor will one day be recognized, even though their instruments were only factory organs. We, on the other hand, we who decided how our organs were to be built and imagined that art could benefit from competitive bidding, we shall appear small indeed. We did not sufficiently understand what we should have understood as pupils of old Bach: that an organ builder can be an artist only when he is considered an artist by another artist. Lacking that respect, he becomes, through the force of circumstances, a dealer in objets d’art.

Of course, there have been exceptions. In general, however, we organists cannot deny that we have followed “the trend of the times towards economy, and that the contract often went to the builder who offered a stop or two more for the same price, even if only a thin little Âöline or a thumb piston. We never asked ourselves whether artistic work — work that need not reckon anxiously with time or financial return — was still possible.

During the same period, a kindly fate spared Cavaille-Coll from being forced down the road to economy. His greatest activity came in the last decade of the [Second] Empire [1852-1870], when money for church purposes was abundantly available. Thereafter, the prestige of his artistic advisers, Guilmant and Widor, gave him such prominence that he did not need to set his prices competitively. Only the most congealed builders could find him recently. “Good old Cavaille! If one of his workmen spent three weeks on something and it wasn’t completely satisfactory, he’d have him do it again. If it still wasn’t right, he’d do it again. Which one of us can do such a thing? We wouldn’t stay in business three months!”

Finally, fate caught up with him. In his last years, he had to struggle in order to pay his creditors. The firm, in its venerable building at 15, avenue du Maine, in the bustling neighborhood of Montparnasse Station, was saved, of course; but Cavaille-Coll died poor, leaving nothing to his family. On the other hand, the organs in Saint-Sulpice and Notre-Dame will sing his praise, as long as one stone remains upon another. Until Paris, like Babylon, is just a mound of rubble, people who respond to the magical beauty of his instruments will leave Notre-Dame and Saint-Sulpice filled with the memory of the man who dared, in defiance of time, to remain exactly what he was an artist.

Cavaille-Coll knew he had found the ideal link between key and pipe in the Barker lever, which he used for the first time in the Basilica of Saint-Denis. The only accessories he provided were couplers, and ventiI pedals for mixtures and reeds. On large organs he added just a row of free combinations, first at Saint-Sulpice and then at Notre-Dame. Further efforts in that direction were of no interest to him; all his inventions and labors were directed at perfecting articulation and voicing, the very aspects that in German building were being forced into retreat.

He remained conservative in the volume he gave the individual stops. He did build high-pressure reeds (Trompettes en chamade) for Swell divisions, but in other stops he sought only beauty of tone. Not only his principals and gambas, but his flutes as well, have a marvelous beauty, though they may lack the interesting diversity achieved in the flute family by German builders.

To hear for yourself the difference between a French organ and a German one, draw the principals from 16’ through 2’ in all divisions, on each. That ensemble is often very harsh on a German organ, sometimes unbearable. I know modern organs where just the 8’ principals on manual I produce an intolerable effect. As for the “Doppelflöte,” the less said the better. A builder confessed to me that the“Doppelflöte” stops he was forced to build made him shudder, and I myself can hear them clearly over the Pleno of certain organs.

Now remember that the principal stops provide the base for the Pleno. If the foundation itself has no harmonious tonal beauty, what will the full organ be like?

Things are quite different with Cavaille-Coll. The principal stops are voiced with a view to the tonal unity they are to provide. The principals in each single division, as well as all divisions together, form a balanced harmonic whole, and the individual character of each division is fully expressed in the sound of the whole. The principals of the Great division provide the basis. They are exceptionally gentle, but they have a full, healthy tone. Manual II principals contribute a certain brightness, and those of manual III give intensity. The Swell division is voiced for much greater intensity than the Great division. On our organs, coupling the third division to the principal chorus makes no discernible difference. On a Cavaille-Coll, in contrast, it’s as though light — radiant, white light — flowed at that moment into the massed principal tones.

And no harshness, not even in the highest treble. If French compositions are unbearable on our organs, it’s because they were intended for instruments of the French type. “How can Widor write such sustained dissonances!” a Berlin organist (to whom I owe much) once said to me. Indeed, on his instrument they were intolerable, a torture . . . , but not at Saint-Sulpice!

To avoid that result, when I play French compositions on German organs I draw only half the foundations and hardly any 4’ or
2' stops on the Great, because of the treble. I never draw more foundations on manuals I and II than will allow the foundations on manual III to be clearly heard, or will allow the Swell to affect the foundation ensemble. Only thus can Cesar Franck, Widor, Guil­mant, Saint-Saëns, Gigout, and the others be performed on our organs in such a way as to sound as they once did, and still do, on their instruments.

Since it is not directed towards the ensemble, the voicing of our foundation stops has as a further consequence that the mixtures do not blend with them, but only make them "strong": the mixtures add their excessively strong voicing to that of the foundations. Listening to a modern organ, we can almost see the foundations and mixtures tumbling forth like two torrents, whereas the function of the mixtures is to illuminate the foundation tone, making it bright and transparent, suitable for polyphony.

Our organs make it simply impossible to play a fugue and prelude of Bach's on the foundation stops, adding and removing the mixtures and coupling, uncoupling, and changing manuals so as to emphasize the various episodes, in short to let it stand forth as living musical architecture. On Cavaille-Coll's organs it is possible, because everything is designed to ensure the beautiful harmony of foundations and mixtures. Therefore, in many respects French organists play Bach fugues more simply, clearly, and appropriately than we do. Their instruments are closer to Bach's than ours are.

We, on the other hand, must adapt the Bach fugue to our organs. Our "interpretations" arise in part from mere necessity, even though these "interpretations" are seen by the majority as representing artistic progress. Since we can't play the fugue as simply as it was meant to be played, we approach its registration and performance in an orchestral fashion. We cast it in a new mould, adding crescendi and diminuendi although the fugal structure calls for none, and all because we can't produce on our organs the clear, full tones Bach had in mind.

In the end, that all proves useless, because from our organs all you hear is treble and bass. It's impossible to follow a figure in the middle range. I hardly need mention the tasteless way in which registration is handled. I once heard the theme of the great G minor Fugue stated on the flutes in manual III, the whole structure then swelling out of that statement like the body of a fish. But whether the registration is tasteful or tasteless, if played in that way the fugue is still untrue and unnatural, as if Dürer's engravings were reproduced in colored chalk, to make them "effective."

I can still see the surprise on the face of one of our ablest and best-known Bach singers, when she recently saw Bach's G minor Fantasia appear in its simple, well-rounded, transparent contours, as played by Widor on the organ in Saint-Sulpice.

Back to the polyphonic organ Bach demanded! Away with the orchestral organ! More refined foundation stops! Tonal unity among the foundation stops! Away with our scarce and screaming mixtures! Numerous and gentle mixtures!

Where in our organs is the mixture family represented anywhere near completely on a single manual? Manuals II and III have long been stripped of mixtures. At long last it is being admitted that one mixture must be restored, even in small organs. But how long will it take until the right proportion of mixtures is reached in every division? How long until it is accepted as dogma that the more beautiful, refined mixtures an organ has, the richer and more beautiful the organ is; that there can never be too many mixtures; and that even our Swell divisions must be generously provided with mixtures? The Bach fugue requires tonal homogeneity on all three manuals! It is monochromatic in conception, like an engraving.

Here again, it's a question of money. A forty-stop organ with the right mixtures costs at least as much as one of our modern organs with fifty stops, and perhaps more. But the day will surely come when we once again pay more attention to the tonal richness of the stops than the price, a day when we give preference to the genuine, expensive, forty-stop organ over the phony one with fifty, and when we look back on today's organs, with their scarce and brutal mixtures in unresolved struggle with the monstrous mass of their foundation stops, as an obstacle we have overcome.

Then will the Pedal issue be resolved. Our Pedal divisions are both too strong and too weak, because their tone is uncharacteristic and ill-defined. Hearing a Pedal solo on one of our organs makes us imagine a dragon's heavy coils lumbering forth from somewhere in the depths of the church. But play the manuals with the Pedal, and we immediately ask, "What happened to the Pedal?" Our Pleno stands on feet of clay, because in relation to the full coupled manuals, the Pedal divisions are invariably weak, especially since our aggressive manual foundation stops gulp the wind faster than the Pedal's ponderous 16' wooden monsters do.

Rounding out the Pedal with beautiful mixtures is the only solution to the problem of the Pedal's place in the Pleno. However, our Pedal divisions have hardly any mixtures. On the average, there's not even a 4' stop. And if there happen to be one or two Pedal mixtures, they are unusable because they don't blend with the foundation chorus: this unresolved conflict serves only to blur the musical contours, and it often even distorts them. On the other hand, in our efforts to increase the volume of the Pedal, we're already far beyond the limit of what is artistically allowed. Just hear the F Major Toccata on our organs. Who can think such booming, overgrown sounds are beautiful? Whose ear can detect Bach's marvelous line in all that?

We must build Pedal divisions that are not excessively loud, but rich, intense, and flexible, such that they spontaneously come through even all the manual divisions coupled together, mixtures included. In other words, not too strong and with not too many 16' and 8' stops, but with almost an equal number of beautiful, gentry-voiced mixtures. Such a Pedal is never too weak and never too strong, and above all it does not cloud or hide the middle range of the manual stops.

The realization that we must return to numerous, beautiful mixtures became clearer and clearer to Cavaille-Coll in the last period of his activity. His disciple, Mutin, who is now head of the firm, follows in the master's footsteps and gives practical expression to the idea. I shall never forget the moment when I first actually heard what I had dreamed of: an ideal Pedal. It was on the demonstration organ that graces Cavaille-Coll's shop, an instrument of about seventy stops, with a wealth of mixtures. All the mixtures, even the Septime [sic], are represented on the Pedal. I played Bach's A minor Fugue with the manuals coupled, on principals 8', 4', 2', and mixtures. The Pedal part stood out sharply but not aggressively. "Play it again," said Mutin, "Without mixtures." As I was about to put off the Pedal mixtures, he said, "Stop! They're staying." And the same Pedal that was more than strong enough for the full organ minus reeds was not too strong for the new registration! Finally I played the same full Pedal, leaving only principals 8' and 4' on the manuals, and the Pedal was still not too strong. By then I felt as though I had been given a glimpse into the future, and I stepped down from the bench fully convinced that the day of the "loud-voiced" organ was passing, and that the "rich-voiced" organ—Bach's organ—was returning, with new glory for surviving older instruments.

Tonal richness in the organ presupposes that the individual sound-waves reach the ears of the audience unmixed and relatively unblended, only there to join as independent personalities, forming the richest of varieties.

Cavaille-Coll had already turned his attention to the phenomenon of "entrainements harmoniques" and devised means of keeping one pipe in the full organ from robbing the sound of others of the same pitch. As Pharaoh's lean cows devoured the fat ones, so in a fifty-stop Pleno we in fact hear only twenty-five, the remaining stops only strengthening the first to a certain extent, but not enriching them, because they no longer exist as acoustically individual personalities.

Mutin has brought those experiments to a practical conclusion, and he incorporates it in all his instruments. Two pipes with a minimal difference in scale do not "draw" each other; instead, each exists as an individual, even in the largest tonal structure. If their diameters are the same or appreciably different, then "drawing" is a possibility. In working out a specification, Mutin-Cavaille sees to it that the most beneficial scaling difference is applied.

Now are our organs satisfactory as regards intonation? Well, yes, if good intonation is the same as prompt speech. But even then, they're not adequate. Just play a rapid trill on the bass notes of the manual, or a fast passage on the 16' in the pedals!
Prompt speech is still not good intonation, because intonation means that the sound of the pipe is correctly initiated and to a certain extent articulated. Often, the sound of our organs doesn’t start, it just comes rumbling out. Real legato among single notes is impossible. Listening carefully, we can always detect a gap, or else on the contrary, the notes overlap a fraction of a second. They don’t join together in an animated way, but they roll one after another like balls. The organ is an ideal choir, lacking only words. Is it conceivable that so little importance is sometimes granted to the artistic intonation of the voices?

Here again, in my opinion, Cavaille-Coll’s pupil, Mutin, is on the right track. He starts from the observation that a wind player blows his instrument differently in different registers. In the bass, great volume but moderate pressure; in the middle, less volume but average pressure; and in the treble, very little wind but very intense pressure: the volume of wind always stands in inverse proportion to its pressure. Now since a wind instrument has a very small compass in comparison to an organ stop, and yet requires different winding in order to speak properly, how much more true must that be for an organ stop! Therefore, the pallet-box is divided into three or four sections, and each section receives the volume of wind required, at the pressure required, for the ideal speech of each portion or register of the stop. The large demonstration organ in Cavaille-Mutin’s shop has its windchests divided into three sections, each supplied with wind at a different pressure. Of course, building it is much more complicated, and the cost is significantly higher. But just hear the results! One such stop is worth three others, not to mention the fact that even with full organ, the basses receive their proper wind. Just hear the inner voices of a Bach fugue on stops designed that way! Not a single voice is lost, since each one’s individuality changes from treble to bass. I state without reservation that the organ in Mutin’s shop – its builder couldn’t part with it – may be the most perfect, technically and artistically, that has ever been built. It represents the instrument suited to Bach’s works, to the extent it embodies the requirements his music makes of the ideal organ.

Instead, our organs have excessively strong mixtures placed high up and right in front: they seem to have been built for the express purpose of destroying the beauty of the full organ. It’s downright incredible, on the other hand, that many builders think they can achieve the same result with separate wind trunks as they could with different wind pressures: in each case, an entirely different principle is involved. It takes the interaction of both kinds of difference to endow an organ with a wealth of tonal beauty. And how about reeds? They are satisfactory in neither French nor German organs, because they are too strong and dominant. I once happened to rent an organ to Wildor that I consider the crushing impact of French reeds – no matter how splendidly they are made – as a drawback, from the artistic standpoint. He admitted he had been harboring the same thought for years; in his opinion we must go back to building reeds that instead of dominating the full organ, fit into the tonal structure of foundations and mixtures, touching them with gold. Gigout is of the same opinion. But what labor and care it takes to build beautiful, gentle reeds that speak well!

Once we have them, the question will be resolved whether Bach may be played using reeds. On our reeds, certainly not. But it appears certain to me that his Pedal registrations depend on his 8’ and 4’ reeds. And who would deny that a Pedal division with fine reeds joining the mixtures must be downright ideal? Let’s not forget the 4’ stops, however. Flute 4’, Principal 4’, and Trumpet 4’, if not coarsely voiced, should not be absent from a Pedal division that’s in any way complete. No coupler can take their place in the Pleno. Without them, a pedal part wallows on the floor instead of proudly joining the procession of the other voices.

And that all depends on money! At today’s prices, technical issues that affect artistic quality, namely the tonal wealth and beauty of the organ, cannot come first. Instead, the issue for the builder is offering the greatest number of stops for the lowest price, often delivering – against his better judgment – what people want, not what’s best in the builder’s artistic experience: building for the eye, not for the ear! Frills instead of essentials.

If only the brilliant inventiveness of our German builders could concentrate on purely artistic matters, instead of aiming almost exclusively at cutting prices, as it has had to do in the past decade! That will happen only when we no longer automatically concentrate on the number of stops, and resign ourselves to a good 30% rise in price! Until then, the era of the honest factory organ will continue.

At those prices, who can secure only first-quality materials? How is artistic voicing possible on those terms? Tonal finishing according to the location, doing an artistically conscientious job, takes four times longer than is the rule today, because each day the cost of the voicer’s time must anxiously be added up, and the mere attempt to do an artistic voicing job would gobble up all the profit.

Good voicers should be as well paid as cabinet ministers and occupy among artists a rank that recognizes a skilled voicer as being worth six average virtuosos. It’s easier to find a half-dozen of the latter than one artistic voicer. Posteriority must only bear the consequences of the mistakes made by cabinet ministers, and it may remember the names of the virtuosos, but from the voicer posteriority receives the sounds that delight and instruct generation after generation.

At today’s prices, where is the builder to find the means for experimentation, without which there is no progress? People say we’re about to become a wealthy country. Our organs will not bear this out, because richer instruments were built in the poor Germany of yesterday.

Make no mistake! What’s true for organs is true for organists. No other instrument exerts such an influence on the musician. Perfect organs train organists in perfection, and imperfect organs foster imperfection and false virtuosity. No amount of talent or genius can resist. The art of organ playing is determined by the art of organ building. If organ building hadn’t reached a stage of full development in Bach’s lifetime, his organ music would never have come to be.

In the same way, today’s French organ school is a product of fully-developed organ building. Germany is definitely richer in talented musicians, but we have no group of such outstanding masters as France has in Saint-Saëns, Guilmant, Widor, Gigout, and Vierne.

The French organist differs from the German in the simplicity of his playing. Virtuosity, a characteristic of our leading organists, is less widespread in France. The chief aim is serene articulation, allowing the musical design to take shape before the listener in all its greatness. My impression is that French organists even sit more calmly at their consoles than Germans do. All of them possess absolute precision in depressing and releasing the keys, consistent legato, and clear, natural phrasing. Plainly, there are many organists in Germany who possess the same qualities in the same degree, but in France they are produced by a school. Every organist, even a mediocre one, has those qualities; whereas in our country there are outstanding players who, for example, do not possess absolute precision, or do not use hands and feet together with mathematical accuracy, the result being that the other features of his playing are impaired, for the listener who “really listens.” Of course, it’s harder to play with absolute precision on our organs than it is on French ones, with their type of action. What I always admire especially about French organists is the ease and accuracy of their pedal playing.

The best way I have found to convey my feeling is this: the French organist plays more objectively, and the German more personally. Here again, we find the school: in Germany we have none, each goes his own way, and there are as many interpretations as there are organists. Up to a certain point, that’s an advantage for us as opposed to the French. I often delight in the individual liveliness of German organists, when it’s in good taste. On the other hand, we go much too far, and out of sheer “personality” in performance and composition we bring emotion to the organ – simple human emotion, not the miraculously transfigured, objective emotion of Bach’s last preludes and fugues. We disfigure the works of our great Master when we try to make them live by means of our human emotions. The organ itself must speak. The organist and his interpretation must vanish behind it, s’effacer, as the French
say. With all his thought, he is still too small for the majesty of the organ, a majesty manifest but dormant in the outward appearance of an instrument that represents, as Bach teaches us, the transfiguration of all human feelings.

Perhaps the French occasionally go too far with objectivity in their playing. But the serenity and grandeur are so pleasing that we don’t notice the diminution of overtly personal feeling. "To play the organ," Widor once said to me on the organ bench in Notre-Dame, as the rays of the setting sun flooded the twilit nave with a transfigured calm, "Is to reveal a will that is full of the vision of eternity. All organ instruction, whether technical or artistic, has as its only purpose to educate a human being to that pure, higher manifestation of the will. The player must objectify his will in the organ, so as to overpower the listener. The organist must concentrate his great will in the theme of a Bach fugue so that even a distracted listener cannot tear himself away, but must notice and comprehend by the second measure, and see the entire fugue as well as hearing it. If the player doesn’t have that concentrated, communicative, serene will, he may be a great artist, but he is not a born organist. He has simply chosen the wrong instrument, for the organ represents the objective transfiguration of a human spirit into the eternal, unending spirit. The organ is alienated from its place and its essence the moment it is reduced to being only the expression of a subjective spirit."

Guilmant’s playing is based on the same concept of the organ’s essence, except that in his case objectivity is enlivened, in a characteristic and interesting way, by a certain lyrical sensitivity.

It can be said that a sensitivity to architecture — to a certain extent, the foundation of all French art — comes to light in French organ playing. For that reason, the swell box has an entirely different meaning than it does for us. It serves not the “expression of feeling,” but rather the architectonic line. The Swell division in every French organ is so large that the foundation tone of even the full organ can be shaped further by the tonal structure it contains. "The swell is being used correctly," says Gigout to his pupils, "When the listener never even suspects that the swell is being used; he feels the crescendi and diminuendi as necessary." Guilmant teaches his pupils the same principle.

Grandeur and simplicity in using the swell box are becoming ever more evident in French organ music. In César Franck and the early compositions of Saint-Saëns, we still find a small-scaled, frequent use of the swell, the device being a sort of substitute for the expression the organ lacks: in short, the kind of swell technique that still prevails in our country. More and more, however, a simple, sparing use of the swell is prevailing, one that follows only the broad contours: this technique triumphs in the late works of Guilmant and Widor. It is part of the flesh and blood of their pupils, as well as Gigout’s. Read through Viere’s first organ symphony with that in mind, and compare it with our modern organ compositions. You will readily abandon the prejudice that says the French just use the swell to show off, and you will admit that precisely here, we can learn from them.

But when shall we have proper swell boxes like theirs? Not so long ago, leading German organists argued that a small organ needs no swell box, any more than on such an organ the pedals needed to be extended to F. But a swell box and a complete Pedal belong to the essence of the organ, as four hooves belong on a horse. Better to do without two or three stops, because with a proper swell box each stop is as useful as two. Certain superior features of French instruments are much more evident in small organs than in large ones.

The French are again simpler than we are where registration is concerned. A German organ composition calls for almost twice as many stop changes as a French one. One of the masters of ingenious registration is Saint-Saëns. Guilmant’s registration is extremely clever and tasteful. Widor tends more and more to do without registration altogether: "I can no longer conceive of registration as stop changes, mere modification of the tone color," he once said to me; "I feel that the only correct changes in tone color are the ones that are absolutely required by a turning point in the music. The more we simplify registration, the closer we come to Bach." In the first movement of his Symphonie romane, ten pages long, the entire registration consists of adding the reeds and mixtures to the coupled foundations, then removing them. Of course, we must not forget that the French swell box makes it possible to modify the sound of the entire organ in many ways that are possible on our organs only through changes in registration.

I should like to add to the list of formal superiorities in French organ compositions the cleverly planned, effective use of the Pedal, and the avoidance of all unnecessary use of octave couplers, in the manuals as well as the Pedal. It appears to me that our contemporary composers have not thoroughly studied the role of the Pedal in Bach’s great preludes and fugues. If they had, they would have realized the error of using the Pedal constantly. More than eighty per cent of the octaves so frequently called for in modern compositions are usually senseless: they only hinder legato playing and achieve no effect. Just study Widor’s works to see how to use the Pedal and octave!

With careful study we may actually distinguish two French schools: an older school, not directly influenced by German music; and a contemporary school, that shows German influence. Among the composers of the specifically French older generation, I should include Boëly (d. 1858), Chauvet, and César Franck. The contemporary generation is represented, among others, by Saint-Saëns and Gigout, as well as Gabriel Pierné and Boëllmann, the organist of Saint-Vincent-de-Paul, who unfortunately died so young (b. Ensisheim 1862, d. Paris 1897).

The older school strove for an organistic style of music, but its leading representatives never fully attained one. The works of César Franck and Saint-Saëns are the improvisations of musical geniuses at the organ rather than organ works, although in César Franck’s later compositions the content allows us to overlook a certain violence done to organ style. Boëllmann’s compositions are interesting youthful essays that surey would have led to something significant.

To avoid misunderstanding, let me point out that “Chorale,” in modern French organ literature, means simply a fantasia on a grand, solemn theme of the composer’s invention. The designation came about because certain organists of the older generation thought the chorale themes in Bach’s fantasias were his own inventions.

Among Boëllmann’s compositions I shall mention: Douze pièces en recueil, Deuxième suite, Fantaisie (Leduc); Suite gothique, Fantaisie dialoguee (organ and orchestra; arranged for organ solo by Eugène Gigout; Durand). By Gabriel Pierné, Trois pièces pour orgue (Durand).

Gigout stands apart in this school. He is the classic who has attained a pure organ style. There is something Handelian about him. His influence as a teacher is outstanding, and his playing is marvelous.

This specifically French school cultivates improvisation, but not like the old organist of Notre-Dame (may his name not be handed down to posterity!), who boasted that he had never played anything from a score. Instead, improvisation receives quite special attention. Saint-Saëns is esteemed first and foremost by people who have heard him improvise at Saint-Séverin, where he occasionally substitutes for the ingenious Périhou. Actually, Gigout’s strength also lies principally in the same area.

Vincent d’Indy, in his masterful, just-published book (Paris, Alcan, 1906) about his teacher, tells of César Franck’s improvisations. On April 3, 1866, when Franz Liszt came out of Sainte-Clotilde, he was so profoundly affected that he told his companions nobody since Bach had ever improvised on the organ in such a manner.

Guilmant enjoys improvising. Widor does not, “except when he feels obliged to say something.” Viere’s improvisations at Notre-Dame are distinguished by their formal perfection. Schmidt, one of the most talented of the younger generation, is also one of the foremost improvisers, but unfortunately, because of his appointment as choirmaster at Saint-Philipppe-du-Roule, he is temporarily lost to organ music.

In general, improvisation — as well as playing from memory — has a greater place in French organ instruction, as given at the Conservatoire, formerly by Widor and now by Guilmant and his assistant, Viere, than they do here in Germany. In the competition for the post of organist at Notre-Dame the requirements were:
improvising a fugue on a given theme; a free improvisation; and twenty classical or modern organ compositions from memory. The teaching value of organ playing from memory is simply enormous, for the pupil is forced to take responsibility for everything. We perhaps neglect organ playing from memory to an excessive degree.

The other French organ school, represented by Guilmant, formerly at La Trinité, and Widor at Saint-Sulpice, came from Belgium. Guilmant and Widor were pupils of Lemmens, who in turn had been a pupil of Hesse. Thus, Guilmant and Widor were familiar from the beginning with the organ style that stems from Bach, as their first compositions show, and they did not need to search and feel their way.

Guilmant is not only one of the foremost performers, but also one of the most universal teachers of the present day, possessing outstanding pedagogical talent and music-historical background. It was he who made the French acquainted with the old, pre-Bach organ music. For years, German critics have been emphasizing everything German organ music can learn from Guilmant's works concerning form and structure.

Widor is a more introspective spirit. His ten Symphonies represent the development of organ music as he experienced that development. The first ones are formally perfect creations, inspired by a more lyrical, melodic, often even sentimental spirit; but the marvelously grand structure of the themes shows their creator's uniquely organistic gifts. In the Fifth Symphony, he leaves that path. The lyrical element retreats, and something different strives for expression, in melodic form still in the Fifth and Sixth Symphonies, which are among his best known. The Seventh and Eighth are transitional works. They are organistic, and yet boldly orchestral in conception. What a miracle the first movement of the Eighth Symphony is! At the same time, austerity becomes more and more prominent, the austerity that Widor traces back to sacred art in his last two Symphonies. "Mine is a strange experience," he said to me in that period, "Except for Bach's preludes and fugues, or rather certain preludes and fugues, I can no longer consider any organ music sacred unless it is consecrated by themes from chorales or Gregorian chants." Therefore, the Ninth Symphony, Symphonie gothique, is a Christmas symphony based on the Puer natus est; and the Tenth, Symphonie romane, was conceived as an Easter symphony on the marvelous Haec dies motif. And one Sunday in May Widor, still wrestling with technical aspects, played the finale of the Romanesque Symphony in Saint-Sulpice for the first time. I shared with him the feeling that French organ music had joined sacred art, had experienced that death and resurrection that all organ music must undergo in every individual, if it is to achieve something lasting.

Louis Vierne, who was appointed to Notre-Dame in 1900 when he was not yet thirty, is a pupil of César Franck, Widor, and Guilmant. His two grandly-designed organ symphonies show great promise.

I must not overlook the worthy Dallier, a pupil of Franck's, formerly at Saint-Eustache, now at La Madeleine, where he succeeded Gabriel Fauré, that wonderful, consummate improviser and Bach connoisseur, himself the successor to Dubois. I can never forget a rendering of Bach's EⅢ Major Triple Fugue on the occasion of a musical ceremony at Saint-Eustache.

Among the young organists let me mention Quef, the successor to Guilmant at La Trinité; Tournemire, at Sainte-Clotilde; Jacob, a very outstanding player, at Saint-Louis-d'Antin; Marti, at Saint-François-Xavier; Libert, at the Basilica of Saint-Denis; Maquaire, Widor's replacement at Saint-Sulpice, whose very interesting organ symphony has been published by Hamelle; Bret, who as Director of the Bach Society now devotes his energies exclusively to the service of the Old Master; Mahaut, a consummate performer and devoted interpreter of the works of his master, César Franck; and Bonnet, Dallier's successor at Saint-Eustache.

In both schools, young and old share a reverence for Bach. Bach is hardly performed more often or more exclusively here in Germany than he is in many Paris churches. At Notre-Dame, at the Offertory, Bach's chorale prelude, O Mensch, bewein' dein Sünde gross, resounds under the mighty vaults of the Cathedral.

I cannot make predictions about the future of the French school. L'Orgue moderne, a collection published under Widor's patronage containing modern and contemporary efforts, is not really satisfactory to me. Everything in it is formally sound, and far more mature than the maiden compositions of our young German organists. But it lacks the originality, the "storm and stress," the ferment that could make us certain that from the competent young generation something will come forth that is more than competent: something great and lasting. The contemporary works of young German organists show less formal ability and occasionally a denial of organ style, but by the same token, in many of them, a more promising wealth of ideas.

But what is going to become of French organ building and French organ music? What will be the result of the separation of Church and State? Churches are already adjusting to the separation and are eliminating from already modest salaries whatever can be eliminated. Most organists have been notified that their salaries will be reduced by one-fourth. Dallier, at Saint-Eustache, first lost one-third of his income, then one-half; whereupon he applied for the position at La Madeleine, which had just fallen vacant. The organist's position at Notre-Dame may in the future pay hardly more than 1,000 francs. Organ building is at a standstill. Glorious organs that once stood in churches belonging to religious orders are for sale at ridiculously low prices. People often wonder whether the most certain result of the separation won't be the ruin of organ building and organ music. In any event, both are to undergo a crisis that will be very severe.

Enough of the future. The issue today is knocking down the barrier between France and Germany where organ music is concerned, each country learning from the other. The German spirit and that of France are inclined to stimulate each other, and especially in organ music, we Germans can learn enormously from the French in matters of technique and form, while the French will be spared by the German spirit from impoverishment within their pure and perfect form. From the achievements of each creative tendency, new life will unfold on both sides of the frontier. Up to now, actually, only American organists have benefited from the advantage of learning at both the German and French schools, since they usually spend half their formative years in Germany, and the other half in Paris. In the future, in order to enjoy the same advantage, many Germans and Frenchmen both be seized by the urge that organists had in the old days: to travel and learn. Maybe then a French organist will be able to introduce his colleagues to the art of Reger, Wolfrum, Lang, Franke, De Lange, Reimann, Egidi, Irgang, Sittard, Homeyer, Otto Reubke, Straube, Beckmann, Radecke, G.A. Brandt, and who knows how many more; as I have attempted in these pages to bring German organists closer to the essence of French organ building, French organ playing, and French organ composition.

Schweitzer's Footnotes

1. The organ recently completed in Saint Nicolas, Strasbourg, embodies this model. It is the work of two young Alsatian builders, Dalstein and Haerpfer, of Boulay, in Lorraine.

Each coupler and each combination is provided as both pedal and piston; they are connected by a simple mechanism of Mr. Dalstein's invention, which increases the price of each coupler or combination by about 20 marks. The reversible action of the free combinations, either canceling or complementing the existing registrations as desired, in fact makes all other registration aids superfluous, as was recognized by even those organists who greeted this "novelty" and the elimination of "Piano," "Mezzoforte," "Fort," and "Tutti," with suspicion. The advantage of being able to uncouple manual I from the others and use it as a coupling manual
was obvious after the first demonstration. The complete console costs about 200 marks more than ordinary ones.

For a two-manual organ of 20 stops, then, providing the two duplicate pedal couplers, two duplicate manual couplers, and three duplicate free combinations (manual I, manual II, and Pedal), would increase the price by roughly 100 marks!

2. I scarcely dare speak of the pneumatic actions built by second-rate firms during the "transition period." How costly it would be to save each organ that fell victim to those first attempts and every Sunday cries out to high heaven, and give it a "clear, new spirit"!

And how many of our average organ builders, who once made simple, sweet-toned, and even artistically-voiced instruments, went bankrupt because they had to imitate the others, and invent!

3. In very large churches, two or three artistically-built high-pressure stops can have a grandiose effect; therefore, they belong to the perfection of the instrument. In average-sized spaces, however, they can only distort the organ's sound, and for this reason they must remain the exception in organ building.

4. Our modern grand piano is also unsuited to Bach's music, as people everywhere are beginning to realize. See Wanda Landowska, Sur l'interprétation des œuvres de clavecin de J.-S. Bach, [Paris,] Mercure de France, 1905.

5. I've always been struck by the fact that certain glorious Silbermann organs sound downright ugly from close up because the character of the single stops is too strong. From the nave of the church, however, the sound is all the more glorious.

Observe, too, how old organs, even when gently voiced, speak through the walls of the building! Every note of the polyphony reaches the listener unblurred, even when he's standing on the square in front of the church. How does the modern organ compare in this respect? Despite all its power, it can manage to send only a murky, rushing moan out through the masonry. So it comes to pass that the very stones cry out against the organ and demonstrate that its sound doesn't "carry."

When will it come to pass that every organ meets that most elementary aesthetic requirement: differential wind supply? The best we've done so far is to give each division its own wind supply: manual I the highest pressure, manual II somewhat less, and manual III the weakest. The result is that the pressure for manual I is far too high: roughly the same as used for operating the organist of Notre-Dame, Widor often played the Cathedral organ. He was just then practicing his last organ symphony.

But his Trois pièces pour grand-orgue and his grand fantasias entitled Chorales will remain something unique (Durand). Those three chorales were Franck's last work, in 1890. Although he could no longer walk, he tried to drag himself to Sainte-Clothilde in order to complete the registrations.

To avoid misunderstanding, let me point out that "Chorale," in modern French organ literature, means simply a fantasia on a grand, solemn theme of the composer's own invention. The designation came about because certain organists of the older generation thought the chorale themes in Bach's chorale fantasies were his own.

Among Boëllmann's compositions I shall mention: Douse pièces en recueil, Deuxième suite, Fantaisie (Leduc); Suite gothique, Fantaisie dialoguée (organ and orchestra; arranged for organ solo by Eugène Gigout; Durand). By Gabriel Pierné, Trois pièces pour orgue (Durand).

10. For Saint-Saëns I shall mention Trois rhapsodies sur des cantiques bretons, op. 7 (Durand), the first and third of which are truly marvelous and have the additional distinction — rare in this case — of pleasing the listener immediately. Trois préludes et fugues pour orgue, op. 99 (Durand); Fantaisie pour grand-orgue, op. 101 (Durand). Both works are ingenious and substantial, even though they may not be fully satisfactory from the standpoint of organ style.

11. Among Gigout's works let me mention Six pièces (Durand), Trois pièces (Durand), Prélude et fugue en mi (Durand), Méditation (London, Audy), Dix pièces en recueil (Leduc), Suite de pièces (Richault), Suite de trois morceaux (Rosenberg), and Poèmes mystiques (Durand).

12. Alexandre Guilmant: Seven sonatas (op. 42, 50, 56, 61, 80, 86, 89; Durand-Schott); Pièces dans différents styles (18 albums, op. 15, 16, 17, 18, 19, 20, 24, 25, 33, 40, 44, 45, 69, 70, 71, 72, 74, 75; Durand-Schott); Noels, offertories, élévations (4 installments; Durand-Schott); L'Organiste liturgiste (10 installments); Concert historique d'orgue. Guilmant has performed a special service by publishing editions of the French organ masters of the 16th, 17th, and 18th centuries. Six annual volumes have appeared to date.

13. Charles-Marie Widor: Symphonies pour orgue, 1-4, op. 13; 5-8, op. 42 (Hamelle, 2nd ed. 1900); 9, "Symphonie gothique," op. 70; 10, "Symphonie romane," op. 73.

Hamelle.

Afterword, 1927

Over twenty years ago the call went forth from the pages of this journal: "Turn back from the modern factory organ, that inspiration of demon invention; turn back to the true organ with its beautiful tone!" Surprisingly, until then nobody had undertaken to confront organists and organ builders with the question as to what direction organ building and organ music were actually moving in. It was taken for granted that the droning factory organ was the instrument of the future, and that in the shortest possible time all organs built previously would succumb to the axe and the furnace.

If I did not myself become infatuated with the modern factory organ, I owe it to the circumstance that I grew up among tonally beautiful organs exclusively. As a boy, I played on Walcker organs that had been built in the 'sixties and 'seventies of the last century,
that firm's best period. One of them, numbering sixty-two stops, stood in the Protestant Church of Saint-Étienne in Mulhouse, in Alsace. Towards the end of the century, the same firm that had built the instrument in Saint-Guillaume had to make its last renovation and modernization. It was then that the organ was able to save it from the same fate, but it then fell victim to the war. I was eighteen when I got acquainted with the organs of Cavaille-Coll in Paris, and their wonderful foundation and mixture stops. As a student in Strasbourg, I was intoxicated with the sound of the Silbermann organs in Saint-Guillaume and Saint-Thomas, and their charming brother in the Protestant church in Colmar. Towards the end of the century, the instrument in Saint-Guillaume had to make way for a modern factory organ. Both the others were saved.

For years, I dared utter only to organist friends my heresies about the beauty of old organs and the inferiority of modern factory organs, with their piston-strewn consoles. The responses I got from them did not encourage me to go further with such untimely views. As newspaper coverage of factory-organ dedications became more and more lavish in praise of the instruments that had replaced older and more beautiful organs, I overcame my hesitations and in 1906 brought my heresies before the public. Thanks to the perceptive cooperation of the editors of Die Musik, I found a journal to publish such madness. Then, the kindness of the Breitkopf & Härtel firm made it possible for the essay to live on as a separate publication. Its first results were only that a great many organists and builders broke off their hitherto friendly relationships with me. There was no lack of scornful letters. A prominent Berlin organist said I was ready for the insane asylum.

The massacre of old organs went on. Only with difficulty was I able to save the organ in Saint-Thomas in Strasbourg. Its death warrant was already prepared, in the form of a bid for a mighty factory organ. In the Chapter the necessary votes were secured to preserve the organ, thanks to two perceptive clergymen and professor Laband, who taught constitutional law: as its legal adviser, he had a seat and a vote in the Chapter.

In 1909 came the first success. Guido Adler, who was in charge of organizing the third convention of the International Musicological Society in Vienna, got in touch with me and offered to place me on the agenda. At his suggestion, I sent a questionnaire in German or French about the problems of organ building to builders and organists from all European countries—chiefly Germany, Austria, Switzerland, and France, because I had the most contacts there. The replies to the questionnaire were to provide the subject matter for the sessions of the Organ Building Section scheduled at the Vienna convention. The results showed how little appreciation there was that organ building should be elevated to the status of an issue. Instead of giving pertinent answers, many respondents voiced threats against those who would “limit the freedom” of organ builders and, as one wrote, “build every organ on the same last, like a shoe.” The worst were the replies of many builders and expert appraisers. There were builders who didn’t understand the significance for them of the proposal to define minimum prices, below which artistic work was not possible. They only saw a movement beginning that aimed to make it impossible for them to drive out competitors by means of underbidding or “the latest inventions.” At the time, a great many respondents said nothing else in the entire issue.

Concerning the stops, the Regulations made the statement — again make it possible for builders to work according to artistic criteria without facing bankruptcy. Moving in that direction seemed to us the most urgent assignment. Therefore, we devised the project of drawing up regulations for organ building that every builder could lay before customers and appraisers, in order to avoid being cut out by competitors who either underbid him or peddled the “latest inventions.”

Material for such regulations was to be found in my address on the current status of organ building (published in the Report of the Convention) and my report on the replies to the survey questionnaire.

In four days to draft and produce regulations for organ building! We gave up the Convention ceremonies, and our Section met practically round the clock. We hardly took time to eat and sleep.

The sessions were led by Prof. Xavier Matthäus, who represented liturgical music on the Catholic theology faculty in Strasbourg, in alternation with myself. Technical knowledge was provided most of all by the Austrian builders, Rieger and Ullmann; the Alsatian builder, Haerpfer, from Boulay; the appraiser, Walter Ehrenhofer; and the engineer, Friedrich Dreschsler, both from Vienna. The last two men deserve great credit for their management of the project.

The fifty-page Regulations were published in German and French, underwritten by the International Musicological Society, and were sent free of charge to the builders and experts who had received copies of the questionnaire. Its publishers are Breitkopf & Härtel (Leipzig) and Artaria (Vienna). In addition to the German and French versions, an Italian edition was produced by organist Carmelo Sangiorgio (Mazara del Vallo [Trapani], Sicily).

Thus, for the first time, a thorough discussion had given rise to a statement concerning the ideal to be pursued in organ building. The Regulations provided measurements for manuals and pedals, specified the position of the pedal keyboard relative to the manuals, and recommended a maximum distance between manuals. Size, shape, free travel, dip, resistance, and elasticity of keys were all specified for greatest ease in playing.

It was demanded that any organ, no matter how many stops it has, be complete in external design, to wit: at least two manuals, a manual compass of G [sic] to g["], a pedal compass of CC to f, and a swell enclosure.

The complicated console with its many free and fixed registration aids was stripped of its prestige, and the greatest possible simplicity was promoted as the solution. Instead of many various accessories, the console should first of all provide the one that is required by the artistic logic of organ playing, but is not found on the consoles of factory organs because it is harder to build and proves to be more expensive than the many “inventions” that have no practical value. The only sensible and worthwhile registration accessory is the one that makes it possible to bring on and put off preselected registrations as either substitutes or supplements for the existing registrations, on every manual and the Pedal, as desired. In addition, a Tutti, and a “Sforzando” with a balanced pedal, that brings on or puts off all the stops in the organ, in such a way that the sequentially-added stops either supplement or replace the existing registration, as the player desires.

A three-manual organ with hardly more that a half-dozen registration aids, while the fantastic consoles of contemporary factory organs provided several dozen! A two-manual instrument with fewer than a half-dozen!

Many stoop-employing expert organ appraisers were unfavorable to this initiative on the part of quite unofficial people who presumed to have a say in organ matters, challenging the discretion of a single expert — always the same one, in a given region — to authorize and appraise organs, and believing instead that every organ should be built with the collaboration of several experts.

Together with the negative and suspicious replies, however, in came a steadily procession answering the questions in detail and welcoming an open discussion of organ building.

The International Musicological Society’s Vienna convention, from 25 to 29 May 1909, saw the development of international regulations for organ building.

In the very first hours of the convention, the members of the Organ Building Section agreed to undertake something that might
number of stops! Organ builders had to submit to that mindless tyranny if they wanted to get any contracts at all! The Regulations for organ building represented organized resistance to that madness.

But how do the artistic fullness and beauty of pipe sounds come about? That issue occasioned impassioned debates in the Organ Building Section. It was plain to everyone that higher wind pressures were to a great extent the cause of the unsatisfying sound of modern factory organs. But long negotiation was required until we ventured to state in the Regulations that foundation stops and mixtures should be winded on pressures of only 70 to 85 millimeters. It was agreed without difficulty that broad scaling and thick pipe walls have a great influence on the beauty and fullness of the tone. But many thought it too risky to state that modern windchests with all their technical perfection were also responsible for the unsatisfying sound of the factory organ. At that time, champions of the old chests were unable to base their conviction on physics. On the other hand, it had to be recognized that after a rebuild in which the old pipes had been placed on new chests, they no longer produced the full, round tones they once had, not by far. Thereupon, we extremists in the Organ Building Section managed to secure a place in the Regulations for a sentence — oh, so carefully worded — stating the advantages of the slider chest with respect to tone production. We breathed a sigh of relief, once we had succeeded in doing that.

It was also difficult to push through the statement that a mechanical connection between key and chest is artistically the most perfect, and that in small and medium-sized instruments, where no technical difficulties stand in the way, it is absolutely to be preferred.

So it was that in the 1909 Regulations for Organ Building, we declared ourselves in favor of the old, simple, beautiful-sounding organ. The hesitant among us were carried along by the daring.

Because of its detailed, practical provisions, the Regulations for Organ Building made an impression even on those who at first were not receptive to the call, “Back to old organs.” In the following years, a critical attitude slowly developed regarding the modern factory organ, even though the massacre of old organs went on almost undiminished. People began to take up the problems of windchests, scaling, and voicing in a scientific and experimental way. All indications were that future conventions of the International Musicological Society would see progress in the question of the true organ, with widespread interest and valuable documentation.

The World War put an end to such conventions, till further notice. But the idea kept moving forward without conventions, amid the sufferings of the time. Concert tours after the War took me to about every country in Europe, and I could observe that the idea was on the verge of winning out. Organists everywhere were championing it. The science of organ building had won honor again. What old organs survived were again being carefully evaluated. News of astounding conversions spread. Organ manufacturers and organ virtuosos adored what they had burned.

Most recently, the devalued currencies of central Europe could almost have been a threat to the old organs in the North. I observed that crisis in Sweden and Denmark. Since central-European factory organs were to be had cheaply in those countries with strong currencies, and since the builders still enjoyed their old prestige, people set about doing away with the old organs, in order to equip themselves with up-to-date goods at the right moment. I was able to work with Cathedral Choirmaster Bangert, of Roskilde (Denmark) and other Scandinavian experts, to save several especially threatened old marvels.

Today, the battle has been won. Scientific connoisseurs of organ building and old organs like Ernst Schiess of Solothurn and Hans Henny Jahnn of Hamburg are active in the restoration of old organs. In the Institute for Musicology at the University of Freiburg in Baden, Prof. Willibald Gurlitt and his students are pursuing the study of both old organ music and old organs. Associations for the preservation of old organs have been founded.

We could never have dared hope that a younger generation would so promptly and vigorously carry forward what we undertook in Vienna in such contradiction with the spirit of the time. I am moved as I remember those who shared in our work during those wonderful days, but did not live to see the victory of the idea.

According to the publisher’s wishes, the essay on organ building and organ music in Germany and France is being reprinted in its 1906 form, in a sense documenting the start of the struggle for the genuine organ. Only an error on page [17], concerning the Merkin organ in the Oratoire in Paris, has been eliminated.

I still hold fast today to the ideal I championed in that article. Only in matters of detail have I deviated from or gone beyond the opinions I expressed then. Thus, for example, I have become convinced that the divided windchest and different wind pressures used by Cavaille-Coll’s successor still do not accomplish what in theory they promise. The organs thus equipped have a tone that is less full and round than the old organs by Cavaille-Coll with ordinary slider chests. Therefore, I consider the slider chest to be the one that produces the most beautiful tone. In so doing, I leave open the question whether we must return to the slider chest for acoustical reasons, or whether the inventive spirit of our builders, at last devoted to practical problems, will succeed in building modern windchests that are equivalent to slider chests from the acoustical point of view.

The more organs with pneumatic or electric action I have played on in various countries, the clearer it has become to me that tracker action is the ideal connection between the key and the windchest. I therefore advocate providing all small and medium-sized organs with good, mechanical action. In larger installations, where pneumatic or electric action seems indicated, tracker action is to be preferred, however short (sic, for “long”) the distance, so that the key may retain the elasticity indispensable for good legato and good phrasing.

In one important demand I go beyond the 1906 article and the Regulations for organ building, namely: the artistic importance of the Rückpositif [chair organ] has become clearer and clearer to me. A group of stops located not in the main case, but speaking directly into the nave, has an influence on the overall sound of the organ. The complete organ consists of three personalities: the Great division, round and full; the Positif division, bright and restrained; and the Swell division, intense and contained. In that Trinity lies the essence of the complete organ. Old organs had only two tonal personalities: the Great and the Positif. The third division, housed in the main case, was so undeveloped and was positioned in such a way that it had no individual part in the overall sound. The modern organ, having no Positif, again has only two tonal personalities: the Great and the Swell. The second division (Positif), transferred into the main case, has no tonal individuality of its own and is only a supplement to the first [Great] division. It’s not the number of manual divisions that’s decisive for the essence of the organ, but the number of tonal personalities. Because Cavaille-Coll took away the Positif from the five-manual organ in Saint-Sulpice, Widor plays on a two-manual organ with five keyboards, for which I never fail to reproach him. For all its hundred stops, the organ in Saint-Sulpice possesses only two tonal individualities: the Great division, distributed over four keyboards; and the Swell division. The same is true for the organ in Notre-Dame. Therefore, we must again build organs with Positif divisions.

That will be hard to do. Installing a Positif means a substantial price increase. But better to forego a few stops and obtain a Positif, than have more stops and only two tonal personalities. There is no ideal full organ without a Positif. A second division of eight stops installed as a Positif is worth more than a division of fifteen stops located in the main case.

Therefore, it makes no artistic sense to build organs with more than three manuals, unless in very large halls that require an exceptionally large number of stops. In those cases, let the Great division be distributed over two manuals. Three manuals are enough for as many as eighty stops.

On the other hand, three manuals are indicated with as few as thirty stops, so that the organ may have its Positif. Let no one be swayed by the consideration that funds spent for the Positif could secure so and so many more stops for the organ. The organ with a Positif is always the more valuable one, regardless of the number of stops.
The larger the hall, the more necessary the Positif. In small churches, an organ with two tonal personalities is satisfying, because it stands neither far away nor high up, and the Great division itself speaks directly into the room. However, the farther and higher the instrument is located, the more important it becomes that one group of stops be shifted down and towards the front.

An objection — in addition to cost — usually raised against the Positif is that it makes accurate tuning of the entire organ impossible, especially in heated churches, because the Positif stands in cooler air than the higher divisions of the organ. I have never found that drawback really noticeable, except for a few Sundays, and in relatively small, overheated churches. The larger the room, the more uniform the temperature in the vicinity of the organ loft.

It is senseless to equip an organ with two Swell divisions. The quantities of wood in the structure hinder the projection of the sound.

Echo divisions are still sentimental gadgets that have no relation to a genuine organ.

In many circles the watchword, "Back to old, beautiful-toned organs," has been mistaken as raising the eighteenth-century organ to the status of an ideal. That is not the case. By "old organs" the slogan means all those that were built before the era of modern factory organs, in a time when master builders could still work as artists: organs from the seventeenth century into the seventh decade of the eighteenth.[sic]

Surely we must preserve the surviving organs of the seventeenth and eighteenth centuries as historical treasures, and restore them with all possible care and reverence, down to their errors and weaknesses. Surely we must become much better acquainted with organs of that period than is now the case. What undiscovered treasures still lie in the old organs of Spain and Catalonia alone! From such a great variety of pipes in older and early organs, we shall again borrow much, as we are restoring the slider chest to dignity because of its acoustical characteristics.

Our ideal of the organ, however, is conditioned by the accomplishments of the great master builders of the first seven decades of the nineteenth century. Moreover, it must take into account the demands made on the organ by the major composers — César Franck, Widor, Reger, and the others — in their creations. They all take for granted the enrichment the organ underwent in the nineteenth century as a result of the Swell division’s development. Out of the meager Echo division with its little shutter grew the abundantly-furnished, intense-voiced, modern Swell division that endows the organ’s sound with a new personality, at the same time possessing a hitherto unimagined flexibility.

In designing an organ, therefore, the Swell division’s relationship to the entire organ must be planned. It must have more stops than any of the other divisions. In a two-manual organ of fifteen stops, I assign five to manual I, seven to manual II, and three to the Pedal. In two-manual organs of twenty, twenty-five, and thirty stops, I follow approximately the ratios 7:9:4, 8:12:5, and 10:14:6.

In three-manual organs with Positif, if there are thirty stops, about nine go to the Great, five to the Positif, eleven to the Swell, and five to the Pedal. With forty stops, the ratio is 12:7:14:7; with fifty, 15:8:18:9; with sixty, 17:10:22:11; and with seventy, 20:11:25:14.

The Positif can stay rudimentary, because its stops have the greatest effect. Should it be used as a second division in contrast with the Great, it is quite able, through coupling, to serve as companion to the Swell. That didn’t obtain on older organs, where the Positif keyboard lay below that of the Great and the mechanism didn’t allow coupling the Positif to the third manual. The Positif had to be developed as fully as possible, therefore, while today it can stay incomplete.

The difficulty of housing enough stops in the Positif case, and the impossibility of coupling the Positif directly to the third manual, caused the acoustic and artistic significance of the Positif to be overlooked, and led to its displacement into the main case as a second division.

If a three-manual organ has the second division in the main case and not as a separate Positif, the division may nevertheless be left incomplete. In this instance, it is not an independent tonal personality, but only a supplement to the Great division.

The principle that the Swell must be the most complete division is to be upheld under any and all circumstances. If the size of an organ allows only one mixture and one reed, they must stand in the Swell division.

It is important, when designing specifications, to take into account the registrations given by leading composers. César Franck, Widor, and the other Romantic masters take for granted a Swell division containing an intense Gamba, a no less intense and not-too-narrow-scaled Voix Celeste, with an 8’ Oboe and a 4’ Clairon. There is not an 8’ Clarino in the Positif. If, through some arbitrary gesture of the builder, those stops are not found in their places, performance of those masters and all composers influenced by them requires that the entire registration be altered.

When drawing up specifications, consideration must also be given to the requirements made of the organ when accompanying Bach Cantatas and Passions. In addition to a gentle, open Flute, the Swell must have a mild, not-too-narrow-scaled Salicional and a pleasant Principal Flute. If those three stops are not available in those tonal characters, proper accompaniment of recitatives and arias is unthinkable.

If a Positif is provided, there is the immediate advantage that the solos in Bach’s works can be accompanied by stops that are located nearby the singers and instrumentalists, as was customary in his time. In this case let it not be forgotten to provide the bright, gentle “Musikgedackt” on that manual, for that stop played the leading role in those days for accompaniment. An 8’ Gemschorn is also to be provided on the Positif, for accompaniment. Whenever possible, a gentle 16’ Bourdon should be included. Indeed, if a 16’ Bourdon is present on manual II, it can be used by the left hand for the bass line of recitative and aria accompaniments, while the right hand plays the chords on the Swell.

In addition to the 8’ Bourdon and 8’ Flauto Major, the Great division requires a beautiful, wide-scaled 8’ Salicional. It is senseless to abandon that old tradition. No other stop can take the place of the 8’ Salicional in this setting. Tradition specifies as well an 8’ Gamba on the first manual. Do not hesitate to include an 8’ Gamba and an 8’ Salicional, in different scalings, in the Great as well as the Swell divisions.

The English practice of providing two or three different principals on the Great manual of a large organ has much to recommend it.

The Swell divisions of Swedish organs from the years 1850-1890 usually have as their 2’ stop a 2’ Waldflote. That wide-scaled, open flute accomplishes much more than all the other 2’ stops used in Swell divisions, and is outstandingly effective.

The issue of reed stops is still unresolved. The best reeds are found in the work of the great German builders during the ’sixties and ’seventies of the last century, and in English organs of the same period. They speak on a wind pressure of 80 mm. Their tone melts most beautifully into that of the foundations and mixtures, and combines with them in a glorious Fortissimo. When will reed stops be built again that possess the advantages of eighteenth-century [sic] reeds, but not their imperfections?

They fell into disuse because they spoke less promptly and had less brilliance than Cavaillé-Coll’s, and because on high wind pressures, reed stops don’t present the voice with the same difficulties as other stops. If there is a choice between prompt speech and beautiful tone, always choose the latter. The time is past when untrained appraisers terrorized builders by condemning any “attack” as a defect. A tonally beautiful reed stop will never speak promptly. Even a beautiful Salicional and Gamba require considerable time to speak. This, however, is unimportant for organ playing. With full organ, slow speech in the reed stops is not a hindrance; it’s hardly even a problem in the sluggish reeds of the eighteenth century. In fact, their speech improves in the ensemble, when other stops speak at the same time. The reed stop is carried along by the others. The goal is perfect beauty, not the promptest response; and in every stop, not just the reeds.

Intense French reeds, voiced on high wind pressure, do not blend with the other stops; they deaden them instead. In addition, they make legato impossible. With full organ, on a French instrument, the musical line comes out as if chopped to pieces. Cavaillé-Coll’s reeds must not be used for a Bach fortissimo, either. That’s why
French organists have developed the remarkable opinion that Bach himself avoided using reeds in his preludes and fugues. At one time, that was considered dogma at the Paris Conservatory.

One of the chief tasks of organ building today is, therefore, to build again the beautiful reed stops of 1860.

There can be no objection to a single high-pressure reed — as in English organs we find a Solo Tuba together with the usual reeds — or even several. The error lies only in equipping an organ with high-pressure reeds exclusively.

Concerning the console issue, I hold fast to the position stated in the Regulations. With his “Appels des mixtures et des anches,” Cavaille-Coll offered as an aid to registration a device that caused selected mixtures and reeds to be put on and off on each manual and the Pedal separately. He thus opened, in principle, the right path. However, he limited the introduction of prepared stops to the two families mentioned.

But even if extended to all stops, the device for preparing and introducing stops attains its full value only if it is so designed that the existing registration is either canceled or retained, as desired, on the addition of prepared stops. Adding new stops to the ones already drawn and then removing them, and substituting new stops for the ones already drawn and then restoring the original registration: such is the twofold operation that all registration boils down to. To make both possible by means of a single device is, therefore, ideal. A pedal or drawstop (piston), thus, allows time beforehand for determining whether the existing registration will be retained or canceled when the prepared stops are brought on. That can be accomplished without technical difficulties.

When the reversible action of ventil for prepared stops was called for as the most valuable registration aid, in the 1909 Regulations for Organ Building, it was already a reality on several Alsatan organs, as was the similarly reversible crescendo pedal.

Many organists and builders still find it disturbing at first that the stops on each manual can be added independently of the other manuals, and that this flexibility is claimed to be more advantageous than the familiar “free combination” pistons or pedals that alter the registration of the entire organ. They maintain they can accomplish more with a half dozen free combinations than with the combinations called for in the Regulations for Organ Building. However, the advantage of a series of free combinations, affecting the whole organ and canceling the whole existing registration every time, is only apparent. They would serve a purpose if registration consisted of constantly altering the entire selection of stops, lurching from one tonal structure to another. As a rule, however, the logic of the musical compositions requires that the existing registration be either supplemented or replaced on one manual or the other, only to stand alone again at a later moment. Therefore, it is more practical for the console to provide separate controls for prepared stops on each manual, and thus for the manuals, instead of the manuals. For three manual organs, indeed, the Regulations provide, in addition, a pedal or a piston that simultaneously puts on or off selected stops in the entire instrument.

In time, the standard console will win out because of its simple practicality. The main thing is to make sure that in the future every console contains reversible controls for prepared stops on each manual. Beyond that, let organ builders offer whichever accessories they will from the old factory-organ console, to ease the transition from the earlier complexity to the coming simplicity.

It should be obvious by now that couplers and registration aids are provided both as knobs or pistons for the hand, and as pedals for the foot. The question may remain open whether it is really necessary to connect them, so that they control each other and allow the player to cancel a registration brought on with a pedal by using either a pedal or a hand control; or cancel a registration brought on with a hand control by using either a hand control or a pedal. I used to favor that connection, as it offers great advantages. Observation has taught me, however, that most players exclusively use either hand or foot accessories, depending on their habits. Considering that fact, the labor and considerable cost of connecting knob (piston) and pedal no longer seem justified to me.

The main thing is providing accessories for the feet as well, and no longer exclusively for the hands. Before the advent of the factory-organ console, central European firms always provided them as pedals. It is easier to free a foot for using an accessory than it is a hand.

English organs have the very practical feature that the manual and pedal couplers are grouped to the left of the bottom manual, below the drawstops. It is indeed easier and less risky to reach them there than under the left half of the bottom manual, where the Regulations place them. Based on that experience, I would now recommend locating coupler knobs (pistons) in the English manner. In the space vacated under the left half of the lowest manual, the venti knobs (pistons) controlling pre-selected stops would be located. That is a better place for them than to the left above the top manual.

In our preoccupation with registration aids, we in central Europe have overlooked many features of console design that make hand registration easier. In the past, the drawstops were located on either side of the console and above the topmost manual. The left hand is free much more often than the right, and with it the player could control not only the drawstops on the left of the console, but those lying above the top manual as well. Since no drawstops are located above the top manual any more, the valuable hand registration extends only to one-third of the stops, instead of two-thirds. That represents a great disadvantage.

On the old Walcker organ in Mulhouse, with the drawstops arranged in the old-fashioned way, I could reach all the stops for manuals I and II — as well as the couplers, lying to the left of the bottom manual — with my left hand. In addition, some of the drawstops for manual III, lying to the right of the console, extended high enough that my left hand could easily reach them. Only the Pedal drawstops, located to the right of the manuals and below the other knobs, were not accessible for hand registration.

There are no compelling reasons for giving up this most convenient arrangement. In England it has been retained. Just see what English organists can do with unaided hand registration!

Therefore, the most important aspect of console accessories must not be forgotten, and that is the most comfortable possible arrangement of the drawstops for registration changes by hand. Away with all considerations of symmetry! The highest law for locating drawstops must be to make as many of them as possible as easily accessible to the left hand as possible. Therefore, let them be placed on the left of the console and above the uppermost manual. The space on the right of the console, so inaccessible, may remain vacant or receive the Pedal drawstops, if they can't be located elsewhere; as well as the builder's nameplate, which usually occupies the most valuable space above the top manual. As many as forty drawstops can be located without difficulty on the left of the console and above the top manual.

I steadfastly consider drawstops more convenient than stop pistons or stop tablets. The hand grasps them more easily than tablets or buttons. Moreover, it is much more natural to pull or push with the entire hand than to manipulate a tablet or button with one finger.

The idea for which I opened a path twenty years ago has triumphed. However, the resulting joy is mixed with sadness. Victory came unexpectedly soon, and yet too late. When we were living prosperously and had abundant means at our disposal for artistic purposes, we built mediocre organs. Today, when the ideal for organ building has again been shown to us, we are so impoverished that we can devote only a little to organ building. It will be a long time before we can consider a replacement for the mediocre organs. Every Sunday, our past sins cry out to us.

Who will bring back the beautiful old organs we destroyed in our blindness?

Who will bring back the master builders who by the dozen were driven to failure in that period of insane industrialization of organ building, and had to give up their calling?

Here we may heed Lao Tzu's words: “When victorious in war, one should observe the rites of mourning.”

Thus we must pursue on a small scale what once we might have accomplished on a grand scale. Only a future generation will more fully benefit from the knowledge we have rediscovered.

We work for the future. May we do so in the right spirit.
Appendix

Specification of the Organ in Sainte-Clotilde, once played by César Franck. 3 Manuals, 46 Speaking Stops.

<table>
<thead>
<tr>
<th>Grand orgue, 14 speaking stops</th>
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</thead>
<tbody>
<tr>
<td>16' Montre</td>
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<tr>
<td>8' Montre</td>
</tr>
<tr>
<td>8' Gambe</td>
</tr>
<tr>
<td>16' Bourdon</td>
</tr>
<tr>
<td>8' Flûte harmonique</td>
</tr>
<tr>
<td>8' Bourdon</td>
</tr>
<tr>
<td>4' Prestant</td>
</tr>
<tr>
<td>4' Octave</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Positif, 14 speaking stops</th>
</tr>
</thead>
<tbody>
<tr>
<td>16' Bourdon</td>
</tr>
<tr>
<td>8' Montre</td>
</tr>
<tr>
<td>8' Gambe</td>
</tr>
<tr>
<td>8' Flûte harmonique</td>
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<tr>
<td>8' Bourdon</td>
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<tr>
<td>8' Salicional</td>
</tr>
<tr>
<td>4' Prestant</td>
</tr>
<tr>
<td>4' Flûte octaviantie</td>
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</tbody>
</table>

Specification of the Organ in Saint-Sulpice, played by Widor. (Built in 1861-1862) 5 Manuals, 100 Speaking Stops.

Premier Clavier.

<table>
<thead>
<tr>
<th>Grand Chœur, 13 speaking stops:</th>
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<tbody>
<tr>
<td>2' Doublette</td>
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<tr>
<td>4' Octave</td>
</tr>
<tr>
<td>IV Grosse fourniture</td>
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<tr>
<td>VI Grosse cymbale</td>
</tr>
<tr>
<td>IV Plein-jeu</td>
</tr>
<tr>
<td>V Cornet</td>
</tr>
<tr>
<td>16' Bourdon</td>
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</tbody>
</table>

Deuxième Clavier.

<table>
<thead>
<tr>
<th>Grand Orgue, 13 speaking stops.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16' Principal</td>
</tr>
<tr>
<td>16' Montre</td>
</tr>
<tr>
<td>16' Bourdon</td>
</tr>
<tr>
<td>16' Flûte conique</td>
</tr>
<tr>
<td>8' Flûte harmonique</td>
</tr>
<tr>
<td>8' Flûte traversière</td>
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</tbody>
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Troisième Clavier.

<table>
<thead>
<tr>
<th>Positif, 20 speaking stops.</th>
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</thead>
<tbody>
<tr>
<td>16' Violon basse</td>
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<tr>
<td>16' Quintaton</td>
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<tr>
<td>8' Quintaton</td>
</tr>
<tr>
<td>8' Flûte traversière</td>
</tr>
<tr>
<td>8' Salicional</td>
</tr>
<tr>
<td>8' Gamba</td>
</tr>
<tr>
<td>8' Unda maris</td>
</tr>
<tr>
<td>4' Flûte douce</td>
</tr>
<tr>
<td>4' Flûte octaviantie</td>
</tr>
<tr>
<td>4' Dulciana</td>
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</tbody>
</table>

Quatrième Clavier.

<table>
<thead>
<tr>
<th>Récit Expressif, 21 speaking stops.</th>
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<tbody>
<tr>
<td>16' Quintaton</td>
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<tr>
<td>8' Diapason</td>
</tr>
<tr>
<td>8' Violoncelle</td>
</tr>
<tr>
<td>8' Bourdon</td>
</tr>
<tr>
<td>8' Flûte harmonique</td>
</tr>
<tr>
<td>8' Voix céleste</td>
</tr>
<tr>
<td>4' Flûte octaviantie</td>
</tr>
<tr>
<td>4' Prestant</td>
</tr>
<tr>
<td>2' Doublette</td>
</tr>
<tr>
<td>16' Bombarde</td>
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<tr>
<td>8' Trompette</td>
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</table>

Cinquième Clavier.

<table>
<thead>
<tr>
<th>Solo, 21 speaking stops.</th>
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<tbody>
<tr>
<td>16' Bourdon</td>
</tr>
<tr>
<td>16' Flûte conique</td>
</tr>
<tr>
<td>8' Principal</td>
</tr>
<tr>
<td>8' Flûte harmonique</td>
</tr>
<tr>
<td>8' Viola di gamba</td>
</tr>
<tr>
<td>8' Bourdon</td>
</tr>
<tr>
<td>8' Violoncelle</td>
</tr>
<tr>
<td>8' Keraulophon</td>
</tr>
<tr>
<td>4' Flûte octaviantie</td>
</tr>
<tr>
<td>4' Prestant</td>
</tr>
</tbody>
</table>

Pédale, 12 speaking stops.

| 32' Principal-Basse        | 4' Clairon          |
| 16' Contrebasse            | 8' Ophicléide       |
| 16' Soubasse               | 8' Trompette        |
| 8' Flûte                   | 16' Basson          |
| 8' Violoncelle             | 16' Bombarde        |
| 4' Flûte                   | 32' Contre bombarde |

20 couplers and combination knobs; in addition, a free combination for each manual. Manual IV is enclosed in the swell box.

The organ in Notre-Dame has a similar specification, except it has 14 fewer speaking stops.

Thus, Notre-Dame and Saint-Sulpice represent an advance with respect to Sainte-Clotilde in the use of mixtures, which were not so abundantly represented in Cavaillé-Coll's earlier instruments. Dis-regarding the brilliant reeds, Saint-Sulpice and Notre-Dame are thus the most ideal Bach organs that can be imagined.

Cavaillé-Coll's successor, Mutin, is merely drawing the conclusions of his great master's evolution, endowing the Pedal with an appropriate number of mixtures, whereas Cavaillé-Coll never resolved to do so.
Entries are cited by volume : number : page. P = illustration; R = the cited person as a reviewer; S = stoplist; U = Organ UPDATE entry; ff = the cited page and those following. A church or institution appears beneath the state and city of its location. Organ lists are alphabetized beneath the names of their builders. The names of authors of articles appear beneath "Authors, articles." Titles of articles are listed beneath "Articles." The names of authors of letters to the editor are listed beneath "Letters, authors."
A program of music for the king of instruments

Program 9215 4/13/92
Light's Glittering Mom... a four century-broad collection of music for Easter HOWELLS: Sarabande for the Morning of Easter—Robert Benjamin Dobey (1892 Roosevelt-Schantz/Immaculate Conception Cathedral, Syracuse, NY)
HEREDIA: Tiento de Batalia Jens Chris tensen (see also Program #9225)
BARBER: Variations on Wondrous Love, NEAR...—Wallace Lamson, J. Gordon (1936 Aeolian-Skinner /Church of the Advent, Boston)
PARKER: Easter Anthem, Light's Glittering Mom... a four century-broad collection of music for Easter—J. Gordon (1936 Aeolian-Skinner /Church of the Advent, Boston)

Program 9216 4/20/92
BRAHMS: Lord, make me to know, fr A German Requiem—The Colorado Choir/Randolph F. Jones, cond; Frederick Hohman 1985 Reuter

Program 9217 4/27/92
From Finland's Famous Festival (I) ... performances at the Church of the Cross JON LAUVIK: Suite for Organ ROBERT SCHUMAN: Study in A-flat, op. 59, no. 1—Ingrid Reuter, o. Lauren CD-7016
ENRICO BOSSI: Studio sinfonico, Op. 78 PERCY WHITLOCK: Canzona, fr Sonata ANTONIO VALENTE: Io ballo dell’intorno
TIMO KISKINEN: Music for Organ GASTON LITAIZE: Cortège for Organ and Brasses J. S. BACH (arr. Identiast): Jesus bleibet mein Freunds
MARCEL DUPER: Prelude & Fugue in g, Op. 7, no. 3
GUNNAR IDENSTAM: 3 Improvisations (U) color pasa; Bagpiper; Librettano
Performers at the 1991 Lahti Festival included Wolfgang Rulsam, Jon Lauvik, Maija Lehtonen, Mikael Heikius, Timo Kiiskinen, Kari Vuola and Gunnar Idenstam (see also Program #9225).