Schober Organ Notes No. 103-104

July-October 2007

Disclaimer: We accept no responsibility for any unfavorable consequences resulting from following our advice

OVERTURE

Hi Fellow Orphans. I hope you are all having a great summer. I will no longer have two residences. I am moving permanently to Vermont, so please use my Vermont address exclusively from now on if you are writing to me.

It's no picnic. I have lived in this apartment in NY just about all my life. I accumulated tons of "stuff" which has to be packed and transported in addition to furniture and useful items. My addition in Vermont is nowhere near ready for occupation but I have to leave NY by the end of September so this whole thing is nerve wracking and difficult.

As you can see, I am combining two issues as time is at a premium for me right now. Since your "subscription" is not based on issue number but the number of mailings, you will not be short changed.

I am thankful to Charles Witherell for his interesting story which makes this issue great. AK

The Schober Spirit Lives On (A Homebuilt Computer-Based Theater Organ)

by Charles E. Witherell, P.E.

Those of us who are Schober Orphans and those who are, perhaps, second- or third-generation inheritors of Schober instruments, and even fans of home-built organs, share a number of similar characteristics and traits. One is that we like organ music -- of classical format or theater style, or both. Another is that we are, for the most part, do-it-yourselfers who enjoy making things as craftsmen, especially those having varied skills in woodworking, cabinetmaking, and tinkering with electronics and audio systems. And we tend to prefer the realism of actual wind-spoken pipes, and we are willing to sacrifice time and money in a fairly relentless quest for this very satisfying sound. And, most of us are not blessed with the financial resources to simply write a check for a factory-made instrument -- whether a new Allen, Rodgers, or a custom pipe organ installation.

These are the characteristics and traits of those of us who are members of this unique brotherhood that includes the Schober Orphans reading these pages The "Schober Spirit" characterized by independent resourcefulness and relentless determination to strive for the ultimate in organ sound and performance will never die, and the computer revolution of recent years and its virtually limitless possibilities assure us of its continuation well into the foreseeable future.

I became a firm believer and admirer of the thrilling sound of the pipe organ at a very early age through listening to the strains of church music coming from a 1920s Moller pipe organ in the Methodist Church in our city where my parents would be found whenever the lights were on in the building.

It was some time before I had the opportunity to learn how that melodious sound was created by the organist who, to me at the time, was a performer of magic. That is, I did not know that there were keyboards (played like a piano) and a pedalboard operated by the feet, or that there were

tuned pipes hidden away blowing air from a large blower in the basement. Little by little, my endless curiosity prompted opportunities to watch the organist at work and, one time, a brief visit up beyond the choir loft and through a kind of trap door into the organ/pipe chamber itself -- an unforgettable experience for a young boy.

Well, time passed, and while a teenager, the choir director asked me if I was interested in joining the adult choir. Despite my lack of singing ability, she reassured me that through a series of weekly tutorials and by sitting next to accomplished basses during the rehearsals and Sunday services, I would be able to handle the music. Of course, this experience gave me further exposure to the range of capability of the accompanying pipe organ and how it was played. Then, our very talented organist, possibly lured by greener pastures, abruptly resigned. This prompted the choir director (who also served as music director) to audition for his replacement. Some time later she announced to the choir that she had selected a young girl organist from an adjacent city as the new church organist and she said that this girl was able to coax more beautiful sound from that old Moller than she had thought possible.

Soon afterward, when our new organist appeared, she was the most stunning and beautiful girl I had ever seen and she was able to play that pipe organ as I had never heard before -- Bach classics and church hymns equally well. To make a long story short, a few years later I married this girl who could work such magic at the console, as well as in my heart.

As time passed, in about 1948, we sacrificed financially to purchase a new Hammond C3 organ for our home to facilitate practicing and eliminating the frequent commute to the next town to the church and the hassles of scheduling practice time. With my wife's tutoring (and a background in violin from childhood days), I became able to play the Hammond after a fashion -- as it is said, for my own amazement. The Hammond sound was good, although not a true pipe sound, but we spent many enjoyable hours playing that instrument through the 1950s and into the early '60s.

When the Korean War broke out in 1950, I was drafted into the Army and sent to Korea. While there during my 2-year tour, I had the opportunity to play a portable GI pump organ for our battalion church services and, occasionally, for an inspirational Armed Forces Radio program broadcast live to the troops from a field trailer in Seoul. Upon leaving the Army in 1952, I enrolled in engineering school under the GI Bill and had little time for organ playing but continued to be interested in its music, and settled for listening to the masters on LPs and our own Hammond at home. When I became aware of the Schober instruments in about the mid-1960s, I ordered their demo disc and was instantly hooked as the sound and range of capability seemed more authentic than was possible with tone wheel technology. Over the period of a couple of years, in my spare time, I obtained and assembled the series of Schober kits for the Recital model, along with a set of Schober construction drawings for the Recital console. I built the console of walnut-veneered plywood and installed the kits, completing it in May of 1968. The Recital was well worth the many months of kit building and woodworking to complete it and we enjoyed this organ for many years.

More recently, with the development and perfection of computer and digital technology, the capabilities of electronic organs and their sound made a quantum leap forward and, as difficult as it was to admit it, a sound much more authentic "pipe" than the analog Schober.

When I became acquainted with Artisan Instruments and their digital voicing system and capability for converting analog organ consoles to their system, I became reluctantly willing to disassemble the Schober circuitry and replace it with the Artisan system. Although, in doing so, the Recital console retained the Schober keyboards and key contacts, pedalboard and contact buses, and most of the existing audio equipment. In a previous Orphans newsletter (Issue No. 91) I described the Schober-to-Artisan conversion and I shall not repeat the details here.

As I mentioned in that article, the conversion was a hybrid, in that I asked for an Artisan system

that combined both classical and theater voicing. This presented some program/definition challenges for Artisan, but the resulting system worked satisfactorily, and still does. Of course, the theater voices are limited to the number of stop tabs and combination pistons available on the Recital console and does not allow a full conventional theater organ ensemble. In the following paragraphs, I describe additional and more recent steps taken to further improve the sound and performance of our home organ. Essentially, all of these attempts require extensive application of computer technology and familiarity with MIDI concepts. To my mind, these aspects represent the most difficult of all in achieving satisfactory sound and a playable, enjoyable and trouble-free organ system.

There are many others who have mastered these new concepts and have constructed outstanding computer-based organs. I do not regard myself as one of these, although I have become sufficiently self-taught to be familiar with these aspects to make things work. Accordingly, all I hope to accomplish here is to point other Orphans with the interest and drive to improve the capabilities of their homebuilt organs in this new and exciting direction.

There is much good and detailed information on the internet today that offers excellent guidance to anyone having interest and determination to put together an exceptionally great sounding system that is dramatically superior to anything available back in the days when Schober first offered their kits. Computer technology has made it possible for the amateur organist with some modest workshop skills to create an instrument today of remarkably realistic pipe organ sound, and this is certainly worth serious consideration.

In the sections that follow, I will name various makes and models of computer and audio components. This merely describes the particular items I used -- some because I had them on hand; others were borrowed from other equipment and systems. It should be understood that in naming these I am not endorsing or recommending any as superior or preferable to any others. It is merely a description of how I did it, and any equivalent product of similar quality and function would probably work just as well or perhaps even better than those I used and describe here.

Not long ago, and quite by accident during an internet search for something else, I ran across the Miditzer website (virtualorgan.com; see also Theater Organ, Journal of the American Theater Organ Society, Vol. 48, No. 4, July/August, 2006, pages 2-6, 23-29). I had recalled an earlier brief Orphans newsletter mention of this system (Issue No. 97) and I became intrigued with its possibilities for producing an outstanding realistic theater organ sound.

As a result, I downloaded their freeware computer programs, starting with the two-manual Style 216 and then their larger and more extensive Style 260, a 3-manual/19-rank system. These downloaded files allow the user to sample the sounds, one note at a time, using the computer mouse. This only whets the appetite for the capability of playing chords, and soon I connected up a MIDI-compliant keyboard (Roland XP-30) I had on hand to the computer using an M-Audio MIDI interface, and was able to play this authentic Wurlitzer sound on one keyboard. The necessary bass was, of course, lacking but could be added, a note at a time, using the computer mouse. This demanded a level of manual dexterity most of us lack, but with some ingenuity a few simple passages could be played this way.

Of course, all this does is create a desire for additional manuals and a pedalboard, with expression pedals for controlling volume and other functions such as crescendo. As those of us acquainted with the need for these features can appreciate, one capability leads to the need for another and the quest does not really end until you have a full complement of components. And there are many. Some needs only materialize as the new instrument evolves from nothingness. And the cost at first may seem trivial (for example, the basic Miditzer computer program is freeware), but the costs of assembling a fully operational theater organ can quickly escalate. Nevertheless, depending upon the degree of addiction of the seeker of hair-raising organ realism, these costs can be accommodated gradually, or at least rationalized, since we are

furnishing the labor required as part of an enjoyable hobby or even our livelihood if one is sufficiently proficient to play.

In this issue, I describe the steps I took in assembling a homebuilt theater organ based upon the Miditzer Style 260 (three-manual) as described and obtained through their website. However, it should be mentioned that this system today is but one of several computer-based organ systems currently available for both theater organ and classical organ voices. A tour through one or more of these internet websites and their links to related sites will be a stirring experience to any who have not yet done so, as this technology has opened an entirely new and exciting vista for the organ lover, and especially for those possessing those traits noted earlier of most Schober Orphans and their related kinfolk.

After initially experimenting with the Roland keyboard and the Miditzer Style 216 (two-manual) theater organ program, I obtained a second keyboard (Korg X5D) and a dual keyboard stand (Ultimate DX-488). This equipment permitted accessing both manuals concurrently and was a substantial improvement over single-manual operation. The Miditzer system requires an operating computer with a monitor actively displaying a pictorial of the console, and this should be located near the keyboards and within arm's reach. The keyboards are connected to a MIDI interface unit with appropriate cables and addressed and assigned according to a table in the software. Stops are depicted visually on the monitor and are accessed using the mouse and cursor.

Before long, I decided to download the three-manual version (Miditzer Style 260) and added a third MIDI keyboard (M-Audio Keystation). Unfortunately, this exceeded the capacity of the two-tier keyboard stand and required a separate mounting arrangement for positioning the third manual. It became a challenge to position the computer, computer monitor, a mouse platform, the keyboard stand, and the third manual all within reach to enable the organ to be played. Then, there must be an audio system and I used an existing 2.1 Promedia Klipsch THX 3-speaker system with integral amplifier augmented through a Sound Blaster Audigy 2NX. And, up to this time, there was no provision for playing bass notes, and this was an obvious shortcoming for a theater organ.

From what others have done, it is apparently possible to employ surplus pedalboards from discarded or unused electronic organs using appropriate MIDI circuitry. Unfortunately, I had no access to a spare pedalboard as the two I already had were in use with other organs (a 1935 Moller pipe organ and the Schober Recital that had been converted to the Artisan system). I learned that new 32-note AGO MIDI pedalboards are available from Classic Organ Works (Markham, Ontario) and are compatible with computer-based organ systems. I ordered one of these along with three similarly compatible swell pedals from Classic Organ Works.

When the pedalboard arrived, it became obvious that its proper orientation with respect to the manuals interfered with the arrangement I had devised for mounting the keyboards. Accordingly, an entirely new positioning arrangement was needed (i.e., a conventional organ console or reasonable facsimile).

[PHOTO of the organ was inserted here in the hard copy version. Send me a SASE and an extra stamp if you wish a copy of ON 103-104]. Homebuilt Three-Manual Computer-Based Theater Organ

Construction drawings for three-manual theater organ consoles are not readily available; besides the relatively intricate woodworking/cabinetmaking involved in their construction from scratch is not a trivial undertaking. Therefore, a "temporary" shelving arrangement was designed for construction of a ½ inch plywood "console" to permit the three keyboards to be arranged in a typical theater organ orientation allowing the pedalboard to be placed below them at floor level in a playable position. Beneath the manuals but above the pedalboard, several plywood shelves and supports were provided for the computer, audio system sub-woofer, and the M-Audio

MIDI-Sport USB interface unit (4-port). Then, a roller-pullout computer keyboard/mouse tray was installed just below the lower manual to permit accessing the stops using the mouse and cursor with the computer monitor.

The appearance of this setup is shown in the accompanying photo. Since the photo was taken, the computer monitor was relocated to an adjustable cantilevered wall bracket on the right within reach of the organist. In the photo, the black box on the left shelf under the keyboards is the Klipsch sub-woofer; the black box on the shelf on the opposite side is the dedicated computer. The smaller rectangular unit on a shelf just left of center and above the left swell pedal is the M-Audio USB MIDI interface. The other two Klipsch speakers are mounted on wall shelves above the console. All power to all units is fed through standard isolating power strips and controlled through a master switch at the left side of the middle manual.

More recently, some of the awkwardness of accessing and changing the organ stops using the computer mouse was relieved through the addition of a Keytec Magic-Touch touchscreen mounted directly over the monitor screen. This is a recent addition and not shown in the accompanying photo. This feature permits stop changes to be made quickly with one hand but does require precise manual aim to hit the correct spot on the monitor screen to produce the effect desired. A larger monitor would probably facilitate this maneuver.

As the Miditzer theater organ setup stands at the moment, it provides realistic theater organ sound and capability and, with three manuals, has good versatility for accessing and playing a wide range of stops and combinations. There are a few shortcomings and these are mostly related to MIDI channel assignment glitches and confined largely to the swell pedals. According to the Miditzer forum, there is a workaround for these somewhat minor problems, but so far I have been unable to resolve them satisfactorily.

Also, changing stops and combinations, even with the touchscreen monitor, is not so conveniently done as with standard stop tabs. Some computer-based organ setups by others have utilized gutted conventional theater organ console shells and have wired in MIDI compliant circuitry for keyboards, pedalboard, stop tabs, and combination pistons. This, of course, requires the availability of an appropriate and suitably proportioned theater organ console shell and, most importantly, a good working knowledge of MIDI among other skills.

Nevertheless, despite these few problems, the level of organ realism that is achievable today in computer-based digital systems is phenomenal when compared to the best analog systems of only a few decades past. And these systems are available at modest cost if the user/organist is willing to devote some time (and tolerate the inevitable frustration), patience, persistence, and some money, along with ingenuity, to tie it all together into an operational unit. As a footnote, I have the virtually new two-tiered deluxe keyboard stand (Ultimate DX-488 Deltex) described above, and used only briefly with the Miditzer Style 216 two-manual system, that I no longer use. I am willing to donate it free to any Schober Orphan who could use it and who is willing to stop by and pick it up (Monterey, CA area) as it is too heavy and awkward to ship conveniently. If interested, e-mail me at cewitherell@comcast.net. Charles E. Witherell

DANA SAWYER's RESTORATION HELP

Dana writes: 'Dear Alex, Over the past few months, I've been restoring my Schober Recital organ.

Using various Caig DeoxIT products, I was able to get all the key contacts in working order. Some of them still look oxidized, but at least they all work. In the process, I added connectors so the keyboards can be unplugged, and this saves having to solder and unsolder them for cleaning.

Inspired by Rick Andersen, I've put detailed instructions for keyboard cleaning, adding connectors, and cleaning and adjusting the pedalboard on my web site at recital.mugwo.com. My intent isn't to replace the original Schober documentation, but to address the problems they didn't anticipate. The site also has some musings on the good and bad points of Devtronix tone generators and a few other topics.

If this site looks useful to you, then I hope you will publish the link in the newsletter. I plan to mention it on the Yahoo group as well. Regards, Dana Sawyer"

ITEMS OF INTEREST

From member Richard McBeth:

Thought you might find this interesting. Best with a good audio system. "Mind boggling organ virtuoso Cameron Carpenter's concert at Trinity Church in New York" is now available on-line as an on-demand video:

(http://www.trinitywallstreet.org/calendar/index.php?event_id=40478)

This concert was the closing program of the 2007 ATOS convention. The first half of the 2 hour program is classical music and the second half is theatrical. The videography allows you to clearly see Cameron's incredible technique on both manuals and pedals. The organ is virtual but, with Cameron on the bench, you won't be thinking about that."

Quoted material is from Jim Henry. Jim is the creator of the MIDITZER at www.virtualorgan.com.

Another interesting site discovered by Richard: A home made PIPE organ you may find interesting: http://www.sentex.net/~mwandel/organ/organ.html

ADS

Disclaimer: Any deals, making of payments, receipt of payments or verifications are strictly your responsibility.

Can anyone help Craig Browning?

Craig writes:

At one time I had a Rodgers Trio and a Schober Recital that I was tinkering with. Unfortunately, due to relocation I had to part with both of them. And I got on this list as a result of researching organ related equipment.

I recently started working on a Hammond A-100 that I store and occasionally perform on in a club. I have the driver board for, but am lacking both the power supply and control head for a Glenn Tone string bass unit, the installation instructions and schematic are also missing. Does anyone have any literature on Glenn Tone equipment? Preferably a schematic on the string bass. Contact him at: b3bopjazz@mailstation.com

RECITAL PARTS

If there is anyone in the group that needs any boards, power supplies or anything else internal to the Recital organ, it is available for the shipping/mailing cost to your members. My plan is to gently disassemble it instead of 'gutting' it. Although the end result will be the same this will preserve the innards for someone else to use. If possible, I want to use the keyboards, pedal

board and stop switches along with the combination action. If this proves impossible, these will also be available to someone who wants them. Contact: Tom Gentry t.gentry@verizon.net

Schober Recital available for free

in SE Michigan (Detroit area). Contact Thomas Sabella, tsabella@semanagementllc.com

Publisher: Alexander Kruedener
73 N. Lanphear Road Jamaica, VT 05353 (802) 874-4894

ORGAN NOTES FOR SCHOBER ORPHANS AND FRIENDS Issue 103-104
Fred Henn Founder & Headmaster Emeritus
July-October 2007
EDITOR Alex Kruedener kruedener@juno. com

Schober Organ Orphans' Web Page: http://www.cloud9.net/~pastark/schober.html