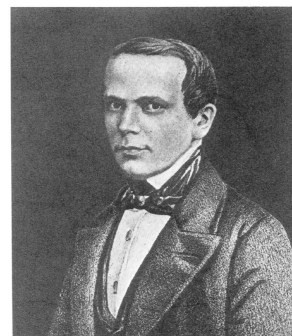


Reger and the Performance Practice of his Era - the Welte recordings, including Reger's own, from the collection at the Museum für Musikautomaten, Seewen (Switzerland).

David Rumsey

Paper given at the International Reger Symposium
Bruckner University, Linz, Austria
Wednesday 13th April 2005.

The great International Exhibitions of the 19th and early 20th centuries were events in which the organ played a "role(roll)" in the fullest sense of the word. The Welte company's "Orchestrion" and "Vorsetzer" were familiar sights. Welte's "Cabinet player", a reproducing piano without keyboard which bore the Mignon label, was first patented in 1904 while the firm was under the direction of Edwin Welte (1876-1958, grandson of the founder). The prototype was exhibited during late 1904 in Leipzig and became commercially available from early 1905. The Vorsetzer came on the market in 1908. Mignon was integrated into their upright pianos in 1909, and into their grand pianos from 1913. In 1908 this technology was also applied to the organ when the firm unveiled their "Welte-Philharmonie-Autograph-Organ". It became the prototype for their "Welte-Philharmonie" player organ¹.



Michael Welte 1807-1880

In the Welte premises shown here² - with its workshops, Recording Hall, "House Organists", etc. - many famous artists of the era were engaged to record organ rolls for later sale. Amongst them were names such as Gigout, Straube, Ramin, Goss-Custard, Wolstoneholme and Reger. Between c1911 and 1928 well over 2000 rolls were recorded; exactly how many we may never know³.



Welte Premises Freiburg

According to the manufacturer their system could faithfully reproduce every minute original detail of a recorded performance. Welte's success with player organs can be dated back to the Turin exhibition of 1911. They were soon in great demand and were available in a variety of sizes and models.

Welte's assurances of playback fidelity in these reproduced performances was eagerly taken up by a generally enthralled group of customers and artists. There can be no doubt that this was a gigantic achievement in both technical and musical worlds.



The Museum for Automatic Musical Instruments in Seewen (Switzerland, near Basel) owns a large Welte-Philharmonie organ. There were never many of this model. For a Welte the Seewen instrument is unusually complete and today world-wide a great rarity, since it is fully original and furnished with a keyboard so that it can also be played by an organist, just like any normal organ of its era.

The specifications of Seewen and some other Welte organs may be compared in the Appendix below.



The organ installed at Seewen (swell shutters removed) prior to the rebuilding works at the Museum

Most of the organ rolls sold by Welte are also today preserved in copies or mother-rolls at Seewen. Many of them originated as the property of Werner Bosch, a former employee of the Welte company who acquired them when the firm was liquidated⁴. They were, in turn, passed on in 1970 by Bosch to Heinrich Weiss, the founder of the Seewen Museum. This collection of some 1300 organ rolls is now carefully stored in Seewen's archives. Almost all remain completely intact.

In about 1980 Swiss Radio DRS featured a series of programs from the Seewen recordings. I transferred the 5 radio tapes to computer CDs in November 2004 in order to preserve them. After a quarter of a century the original recordings were showing clear signs of deterioration. The following shows the detail of what was recorded and by whom. Organists are shown on the left and the abbreviated title (as entered in the original Seewen catalogue) on the right.

| | |
|--------------|--|
| Binninger | Reger Toccata a Op 80 Nr 11 |
| Bonnet | Bach Praeludium und Fuge e BWV 533 |
| Bonnet | Bonnet Angelus du Soir |
| Breitenbach | Bach Fuge Es BWV 552 |
| Dupré | Bach Praeludium und Fuge e BWV 548 |
| Eddy | Reger Pastorale op59 nr2 |
| Eddy | Liszt BACH |
| Fischer | Reger aus Sonata 2 Opus 60 Invocation |
| Fischer | Reger Gloria Op 59 Nr 8 |
| Fischer | Liszt Weinen Klagen |
| Fischer | Bach Triosonata Es dur |
| Gigout | Bach Praeludium Es BWV 552 |
| Goss Custard | Bach Fuge Es BWV 552 |
| Grosse | Widor Organ Symphony V Op 42 Satz 3 |
| Grosse | Reger Toccata und Anfang der Fuga D |
| Grosse | Widor Sinfonie V Op 42 Satz 1 |
| Grosse | Reger BACH op 46 |
| Grosse | Widor Sinfonie V Op 42 Satz 4 |
| Haeuser | Heuberger Opernball |
| Hindermann | Boellman Suite Gothique |
| Hindermann | Reger Ave Maria Opus 63 nr 7 and 80 nr 5 |
| Hofmiller | Widor Sinfonie Andante Cantabile |
| Lemare | Lemare Improvisation |
| Mania Franck | Choral Nr 2 h moll |
| Matthaei | Bach Orgelbuechlein Nun komm |

| | |
|----------|---|
| Matthaei | Bach Orgelbuechlein Christe du Lamm Gottes |
| Matthaei | Bach Orgelbuechlein Wenn wir in höchsten Nöten sein |
| Matthaei | Bach Orgelbuechlein Es ist das Heil uns |
| Matthaei | Pachelbel Ciacona f |
| Matthaei | Sweelinck Mein junges Leben hat ein End |
| Messner | Reger Romanze a Op 80 # 8 |
| Messner | Reger Consolation op65 nr4 |
| Nater | Guilmant Verset |
| Nater | Widor Sinfonie V Satz 2 |
| Nater | Widor Sinfonie V Satz 5 |
| Nater | Dubois Noel |
| Nikisch | Brahms Ungarischer Tanz 5 |
| Philipp | Reger "Weihnachten" Op 145 Nr 3 |
| Ramin | Reger Toccata und Fuga d Op 129 1 und 2 |
| Ramin | Bach Partita Sei Gegruesset Jesu guetig |
| Ramin | Buxtehude Praeludium g |
| Reger | Reger Melodia op59 nr11 |
| Reger | Reger Benedictus op59 nr9 |
| Reger | Reger Romanze g Op 69 Nr 8 |
| Reger | Reger Fuge G op56 nr3 |
| Reger | Reger Praeludium F Op 85 Nr 3 |
| Reger | Reger Canzona op65 nr9 |
| Reger | Reger Suite Op 92 Basso Ostinato |
| Reger | Reger Moment Musical D Op 69 Nr 4 |
| Reger | Reger Jesus meine Zuversich op67 nr20 |
| Reger | Reger Lobt Gott op67 nr23 |
| Reger | Reger O Welt ich muss dich lasse op67 nr33 |
| Reger | Reger O wie selig op67 nr52 |
| Reger | Reger Wer nur den lieben Gott op67 nr45 |
| Reger | Reger Wie wohl op67 nr50 |
| Sittard | Reger Benedictus Op 59 Nr9 |
| Sittard | Bach Praeludium e BWV 533 |
| Sittard | Sittard Choralstudie |
| Stark | Reger Vater Unser Op 67 Nr 39 |
| Straube | Bach Fantasia g 542 |
| Straube | Orgelbuechlein Wir danken dir Herr Jesus Christ |
| Straube | Buxtehude Praeludium g |
| Straube | Orgelbuechlein Christ lag in Todesbanden |
| Straube | Orgelbuechlein Christe, du Lamm Gottes |
| Straube | Orgelbuechlein Da Jesus an dem Kreuze stund |

oooOOOooo

In spite of Welte's advertising hype there were some small flaws with their system.

The narrow width of Welte rolls were problematic. With a mere 150 holes available it was difficult to record all the notes from 2 manuals and pedals - alone over 140 keys - alongside

the more than 30 stops, accessories, crescendo swells etc.. The system therefore operated what we might now call a multiplex technology (in this case a pneumatic multiplex). To gain the extra functions, for instance, when a certain accessory was operated it might cause two mutually opposing signals - e.g. the manual I Bordun 16' is operated when both "slow open" and "slow close" occur simultaneously.

This was the reason that the pedal was recorded with the main manual on a single multiplexed track - on replay a pneumatic switching device had to sort out the low notes and channel them through to play on the correct division. However during replay, it took a noticeable moment of time to operate this pneumatic switch and decide which of the 30 lowest notes belonged to the Pedal and which to the main manual. Mechanical intervention in moving notes slightly forward or back was a normal part of the editing process undertaken by technicians at Welte: these manual editing processes typically extended some of the original perforations made during recording⁵. The consequence was this slight but audible time-difference resulting often in the pedal being heard to play first.

The roll speed on replay is quite accurate if suitably adjusted with the aid of test rolls. Still, it was not always perfect. The correct adjustment of a Welte pneumatic motor was possible, but not simple, and highly prone to small sensitivities, since the technology could become flawed when worn and lead to erratic results. In any case the operator of the instrument, as Welte's own advertising encouraged, could vary the tempo with a lever according to his own whims. He could also, if he wanted, choose and change the registration. Likewise fluctuations in speed could be influenced by changing spool diameters as the rolls played.

Furthermore the different specifications of various Welte Models were such that the smaller organs, and there were many of these, simply could not re-create the detail of the original registrations for lack of available tonal resources.

On their part the organists - especially when they played works of Reger - had to adapt 3-manual music to just 2 manuals in Freiburg. This also occurred in a room with rather dry acoustics, which could not be compared to Cathedrals, for which most of this music was best suited. So far research has not turned up anything specific, but judging from the rolls, the organists do not appear to have made significant adjustments for this environment. Gigout's recording of his own Grand Choeur Dialogué appears not to have taken the Freiburg studio acoustics into account.

[01 Gigout 1.wav]

This sounds much as we would expect it to if we simulate a more lively acoustic electronically.

[02 Gigout 2.wav]

Copies of the original rolls were musically and mechanically "revised" and then reproduced using a high-speed perforator. However the copied rolls had tiny imprecisions and are demonstrably not identical. Particularly with regard to the anticipation of pedal entries, and perhaps also on account of such small vagrancies of reproduction, when the American

organist Thomas Murray asked his teacher Clarence Mader for advice about recording around 1950 he was told: “Don’t bother about the Welte, it breaks chords”⁶.

Swell crescendi and diminuendi were likewise a compromise. The rolls recorded only closed, open, slow crescendo/diminuendo (4-6 seconds?) and fast crescendo/diminuendo (1-2 seconds?). The roll perforations, in theory, could change this instantaneously from any one to the other. The system was well thought out but it made no absolutely precise and reliable reproduction of the organist’s swell-manipulations possible. Differing momentums of the shutters, or the condition of their motors, brought new and differing factors into each equation.

Of far greater significance was the consideration that the swell enclosed the whole organ. No complete division was independent of this one enclosure, save the separate dedicated swell box, as in Seewen, for the Vox Humana. This was not exactly what most of the repertoire was predicated on in this connection.

Two test rolls are preserved in the Seewen collection. When played they can be used to assess the correct adjustment and functioning of the organ and its roll-playing mechanisms. Two examples of these tests follow. In the first the operation of the swell-box is checked:

[\[03 test roll swell.wav\]](#)

So far so good. The second example checks note-repetitions. Some notes clearly fail the test here. Problems of this kind have serious consequences if phrasing or articulation are to be based on rolls played under these conditions.

[\[04 test roll repeated notes.wav\]](#)

The roll containing the complete recording of the Suite Gothique of Boëllmann was played twice for the Radio recordings. The first time there was no tempo adjustment, but for the second it was sped up. The roll used was recorded by the Swiss organist Paul Hindermann and is identified as Welte number 752 (undated). Hindermann was born in Zürich in 1868, studied with Rheinberger, later filled a professorship in Zürich and died there in 1925. Welte released rolls of his playing in 1912, 1913 and 1926 (the year after his death) including works by Bach, Brahms, Saint-Saëns, Franck, Boëllmann, Schumann, Guilmant, Salomé and Reger.

[\[05 Hindermann Boellman normal.wav\]](#)

In the next example the complete Suite takes 13'30" to play rather than 15'42", that is around 16% faster. Human perception for such tempo fluctuations is around 5%⁷. The musical consequences of this accelerated tempo are immediately obvious. Besides this, however, is also a change in registration. There could be a variety of explanations for this, such as technical faults, or the intrusion of an operator.

[\[06 Hindermann Boellman faster.wav\]](#)

Other problems also arise here. Karl Matthaei, 1897-1960, was an important Swiss organist

who, already during the 1920s, pioneered early music⁸. He recorded rolls for Welte, released in 1926-7, with a repertoire including Bach, Buxtehude, Scheidt, Praetorius, Sweelinck and Hanff. The absence of the pedal part in this recording is puzzling and it is hard to imagine that a person of the stature of Matthaei had not noticed it. The wrong notes were possibly his own doing, but inexplicably remain unedited. The technology was there to edit them out. It could also arise from a technical problem of the organ or its roll-player.

[\[07 Matthaei Christe du Lamm.wav\]](#)

Welte technology, even when new, had replay problems, but when it aged and became worn with use, and particularly from the roll-copying processes, it can only be used with caution as a basis to determine performance practice. In spite of that we know that all details were put down on the rolls at the time of recording. It is really only the copied rolls and the replay technology that cause us problems.

At this point I would like to take a closer look at the work of the Boston organ-builder, Nelson Barden & Associates. Barden believed that these problems are all redeemable and, together with others, developed a computer program that resolved the playback limitations of these rolls. He concerned himself principally with the recordings of Edwin Lemare. In this connection he decided to reproduce the Welte rolls of Lemare in corrected versions⁹.

Here are two excerpts from an improvisation by Lemare. Both recordings used the identical roll, Welte number 1195. Even the playback tempo is almost identical, with less than a 10-second difference in duration of 7'48" i.e. under 2%. We first hear the Seewen Radio recording which might be dubbed as "uncorrected Welte Technology." The replay is on an instrument showing the traces of nearly 3/4 century's wear and tear. Note particularly the Pedal and the irregularities in the bell register.

[\[08 Lemare Improvisation Seewen.wav\]](#)

Now Barden's corrected version¹⁰.

[\[09 Lemare Improvisation - Barden.wav\]](#)

Finally an excerpt from Lemare's performance of his own "Rondo Capriccio: A Study in Accents" opus 64, corrected and recorded by Barden from Welte Roll number 1181 dated 1913. It demonstrates the technical possibilities that are available to us today, since this piece represents a significant challenge for player organs.

[\[10 Lemare study in accents.wav\]](#)

The work of Barden & Associates is not merely an invaluable help for future research in the ambit of performance practice but it also lays the groundwork for commercial productions of good clean recordings of these famous organists. Apart from that we now also have the potential to retrieve a world musical heritage that is threatening to decay, but which could be permanently preserved through these now-available technical means.

oooOOOooo

With the following musical examples we shall have to content ourselves for the moment with the limitations of the Welte system and an aging organ.

The Seewen collection contains numerous works of Reger. In 1980 Swiss Radio DRS recorded the following (grouped according to the organists) -

| | |
|---|-----------------|
| | Clarence Eddy |
| Pastorale in F, Op. 59, No. 2 | |
| | Walther Fischer |
| Gloria Op 59 Nr 8 | |
| Mariä Wiegenlied, Op. 76, No. 52 | |
| Intermezzo, Op. 80, No. 10 | |
| Invocation a.d.II. Orgelsonate, Op. 60 | |
| | Kurt Grosse |
| Toccata und Fuge | |
| Fantasie u. Fuge über B A C H, Op. 46 | |
| Fantasia f. Orgel Wachet auf ruft uns die Stimme, Op. 52, No. 2 | |
| | P. Hindermann |
| Ave Maria | |
| | Joseph Messner |
| Romanze, A moll | |
| Consolation Op. 65 | |
| | Franz Philipp |
| Weihnachten Op. 145, No. 3 | |
| | Günther Ramin |
| Toccata und Fuge D moll, Op. 129 | |
| | Max Reger |
| Fuge in G (56.3) | |
| Jesus meine Zuversicht Op 67 Nr 20 | |
| Wie wohl ist mir, O freund der Seelen Op 67 Nr 50 | |
| Lobt Gott, Ihr Christen alle gleich Op. 67, No. 23 | |
| Moment musical, Op. 69, No. 4 | |
| Romance, Op. 69, No. 8 | |
| Melodia, Op. 59, No. 11 | |
| Präludium, Op. 85, No. 3 | |
| Basso Ostinato, Op. 92, Nr. 4 | |
| O Welt, ich muss dich lassen, Op. 67, No. 33 | |
| Benedictus, Op. 59, No. 9 | |
| Wer nur den lieben Gott lässt walten Op. 67, No. 45 | |
| Canzone, Op. 65, No. 9 | |
| Oh, wie selig, Op. 67, No. 52 | |
| | Alfred Sittard |
| Benedictus, Op. 59, No. 9 | |

Eddy, Fischer, Grosse, Ramin, Sittard and Reger are all closely connected with the Berlin Organ School of the late 19th and early 20th centuries. A connection is also established through Franz Philipp since he studied in Basel with a former Straube

student, Adolf Hamm. Philipp was better known as a composer who, incidentally, took Anton Bruckner as his role-model.

oooOOOooo

In the Seewen roll collection there is not one recording of Reger by Karl Straube. Of Straube's recordings only 7 rolls are preserved at Seewen, dated from 1922-1928. These are recordings of Bach - Chorale-Preludes, mainly from the Little Organ Book, and his Fantasia in g minor - as well as Buxtehude's g-minor Praeludium.

Listen now to the most Reger-like of Bach's works, the g minor Fantasia. Straube's performance possesses all the qualities that we would expect, a solid legato and some crescendi that might appear moderate for a fully-enclosed organ. Note the use of manual 16's and the constant registration using reeds. It is to be assumed that this recording took place around the time or soon after Straube had been influenced by the Organ Reform Movement¹¹.

[\[11 Straube Bach Fantasia.wav\]](#)

To simplify matters I have used as my point of departure an assumption that Reger's published music presents us with enough detailed markings with which to basically assess the quality of any performance of it. Against this we know that his metronome markings may not always be taken as absolute criteria: but they may be read comparatively - also through other markings such as *sempre stringendo* etc.. For each of the following pieces I have prepared basic graphical representations that show the overall dynamic and tempo indications as Reger indicated them as well as the values the interpreters gave them in these recorded performances. Naturally it is difficult to give exact numerical parameters to such indications as "*Langsam, doch nicht schleppend*". The graphs give only average values for each bar. I have made no attempt to represent phrasing and articulation in this way. Occasional observations can be made regarding how each artist details these aspects individually. This will also be evident from following the scores.

It is equally important to observe when the individual artist omits to follow the directions in the score, and thus endows the music with his own creative ideas, and to see what they sometimes do when nothing is marked.

oooOOOooo

Günther Ramin was born in 1898 in Karlsruhe, attended the Leipzig Thomas School from 1910 onwards, then studied organ with Teichmüller and Straube as his teachers. He was called to be the Thomaskirche organist in 1918 and as such made Welte rolls, dated 1922-6 (Bach, Buxtehude, Händel, Lübeck, Reger and an improvisation on "Vom Himmel hoch"). He died in 1956 in Leipzig.

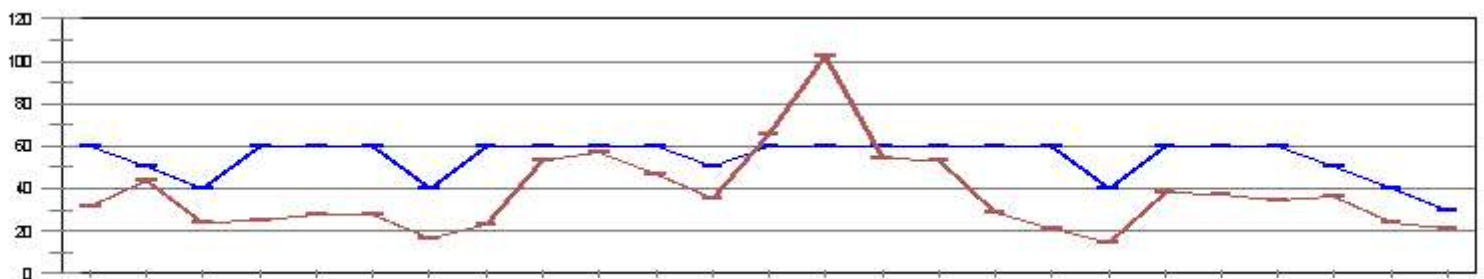
From Welte's roll, no. 1991, we hear his recording of the Toccata and Fugue Opus 129. To all intents and purposes he remains quite true to Reger's score. One hears how Ramin allows some small freedoms to creep in, for example the rhythm right at the outset, which is a very free reading of the score. However, all in all, it is a performance which follows the detail of

Reger's intent quite closely. Of interest in the fugue, which is not an accelerando fugue, is how Ramin nevertheless does introduce some tempo-changes rather along the lines of a crescendo-accelerando Fugue.

Toccata Op 129 #1

Tempo

Ramin; Noten



Dynamics

Music



Recording

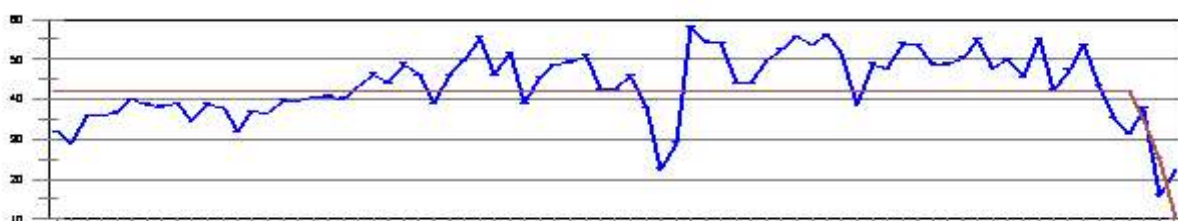


[12 Ramin Reger Op 129 1.wav]

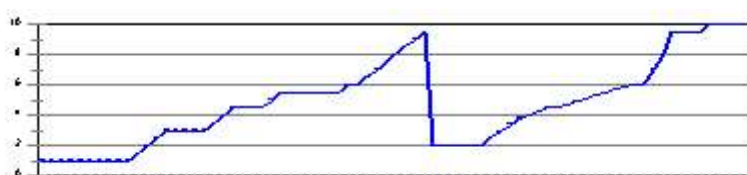
Fuga 129 #2

Tempo

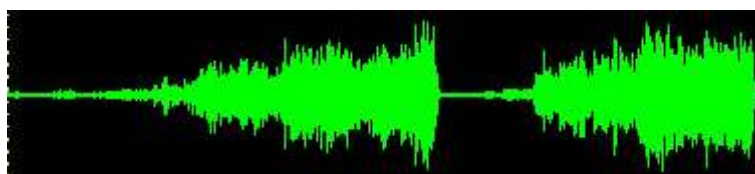
Music; Ramin



Dynamics Music



Recording



[13 Ramin Reger Op 129 2.wav]

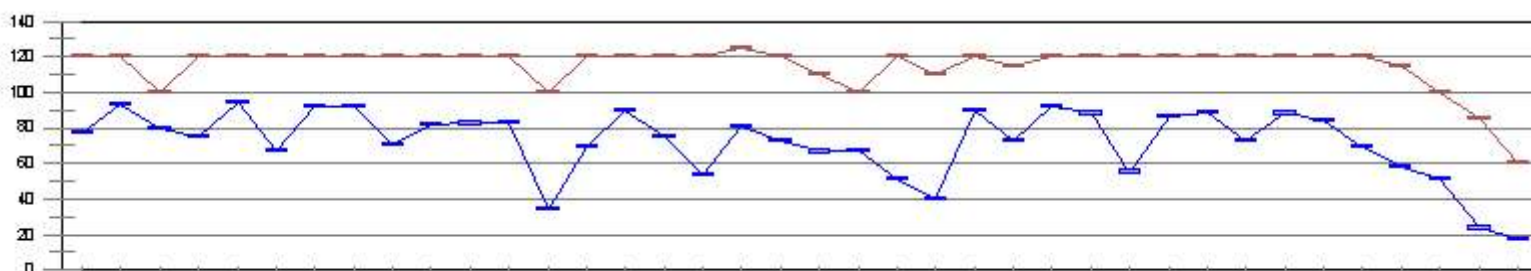
oooOOOooo

Clarence Eddy received part of his education in Berlin. He was born in 1851 in Greenfield, Massachusetts USA, and was a student of Dudley Buck before moving to Berlin where he studied from 1871 to 1873 with Karl August Haupt and Carl Albert Loeschhorn. He died in Chicago in 1937.

Considering phrasing, tempo and dynamics, Eddy's recording of the Reger Pastorelle op 59 Nr. 2 on Welte roll no. 1664 is perhaps one of the most true-to-score performances that we possess of a Reger work. Nonetheless it sometimes deviates clearly from the printed page, particularly with rhythmic alteration around the main cadences. Waiting for thematic entries or beginnings of new sections in this way seems to have been fairly common in these roll recordings. It is, incidentally, assuredly the artist and not a technological idiosyncrasy.

Pastorelle

Tempo Music; Eddy



Dynamics Music



Recording



[14 Eddy Reger Pastorale.wav]

(Certain technical peculiarities in connection with resonant frequencies or aging magnetic tape etc. have influenced the graphic representation here - in fact Eddy holds his performance far better to Reger's dynamic markings than might appear from this.)

oooOOOooo

Reger's Benedictus is said to be his best-known work. It is thus instructive to compare two performances of it here. The first is by Reger himself, the second by Alfred Sittard.

It is sometimes claimed that Reger was not a good organist. Born in Bavaria in 1873 he was already deputizing at Weiden Cathedral 1886-9 - and (according to Groves¹²) was playing a repertoire there which included works by Mendelssohn, Schumann und Liszt (it had short-octave so this may well have been quite an interesting achievement). Later he had a teaching position from 1905-6 in Munich, which included organ students. So by any yardstick of his own epoch he was clearly acknowledged as an accomplished organist.

From 1907 on he was Musical Director at Leipzig University and taught composition there. His Welte rolls are mostly undated, but those that are dated all bear the year 1913. Presumably if Reger gave up organ playing when he moved to Leipzig then he was possibly about 5 years out of practice when he made these recordings. The fact that he chose relatively simple pieces of his own to record may be connected with this. We should not forget that in the interim he was still making appearances as a pianist.

That Reger recorded anything at all shows how highly his playing was prized. For Welte this was no altruistic gesture towards posterity but primarily a hard-headed business consideration. Peter Hagmann¹³ believes that the well-known recordings of Reger from the 1960s were made with an apparatus which was running about 20% too slowly. These were also criticized because manuals and pedals were not sounding together. But as we have already seen, this could have been a roll-related technical problem. It could equally have been Reger's manner of playing¹⁴. Hans Klotz noted with some surprise Reger's use of mixtures, a sign that our modern concepts of playing traditions in that era can also be erroneous.

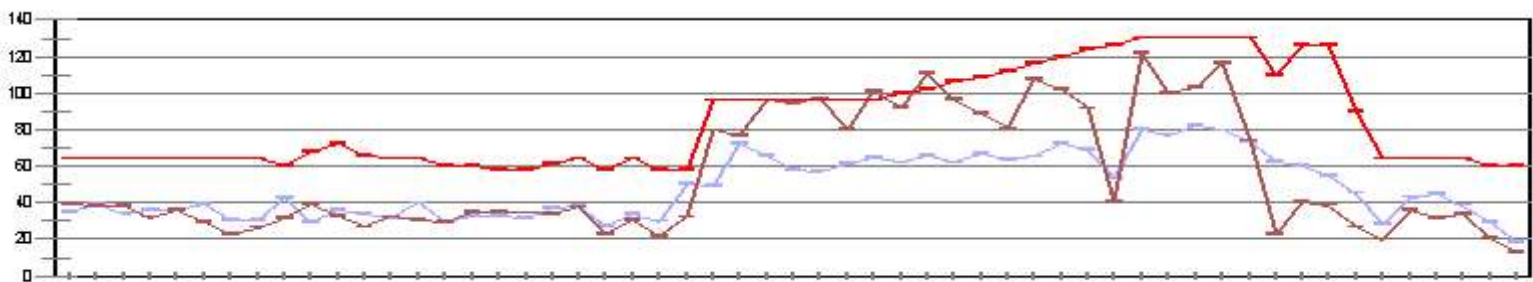
With this background let us listen to Reger's recording of his Benedictus. He remains true to most of his own playing instructions.

The apparent misreading of two quavers as crotchets in the second section is worthy of comment. Is it a technical problem, or an errant intervention of one of the company's editors during the recording phase, or is this once again merely a different performance criterion that was unconcerned with wrong notes?

Benedictus

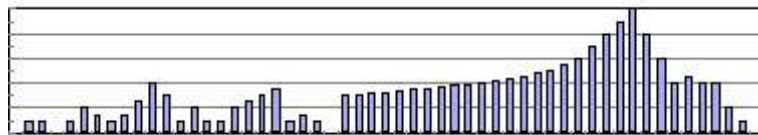
Tempo

Music; Sittard; Reger



Dynamics

Music



Reger



Sittard



Alfred Sittard was born in Stuttgart in 1878, studied in Cologne, became the Dresden Kreuzkirche organist in 1903, then in 1912 organist at the Michaeliskirche in Hamburg and in 1925 Professor for organ in Berlin, where he died in 1942. By comparison with Reger's recording of this work we find many performance elements that deviate substantially from the composer's printed page. Even so, Sittard was a Welte artist who could eventually, of course, look back on more roll-recordings than Reger. Since Reger died in 1916 he could only play in what were the early years of this technology. Sittard's dated rolls are between 1913 and 1924 and demonstrate a serious involvement with the organ repertoire, including Bach, Franck,

Händel, Liszt, Reger, Saint-Saëns and one of his own pieces.

[\[15 Reger Reger Benedictus.wav\]](#)

[\[16 Sittard Reger Benedictus.wav\]](#)

oooOOOooo

Kurt Grosse was a Berliner through and through. Born there in 1890, educated there, worked there and, as far as we know, died there. He was a student at the “Royal Berlin School of Music” from 1914-19, worked as organist at the Garrison church in Spandau and after 1920 moved across as organist and choirmaster to the Friedrich-Werder church. Between 1915 and 1928 Welte made at least 57 of his organ rolls available for purchase¹⁵. Three important Reger pieces were amongst the offered repertoire: Toccata and Fuge (d minor/D major), Fantasie and Fuge on B-A-C-H and the Fantasie on "Wachet auf ruft uns die Stimme".

The BACH Fantasia is played exactly as we might expect, as a Fantasia, closely following all the rhythmic freedoms that are in Reger’s printed intentions. The Fantasia is not suited to a graphic representation on account of these complex changes.

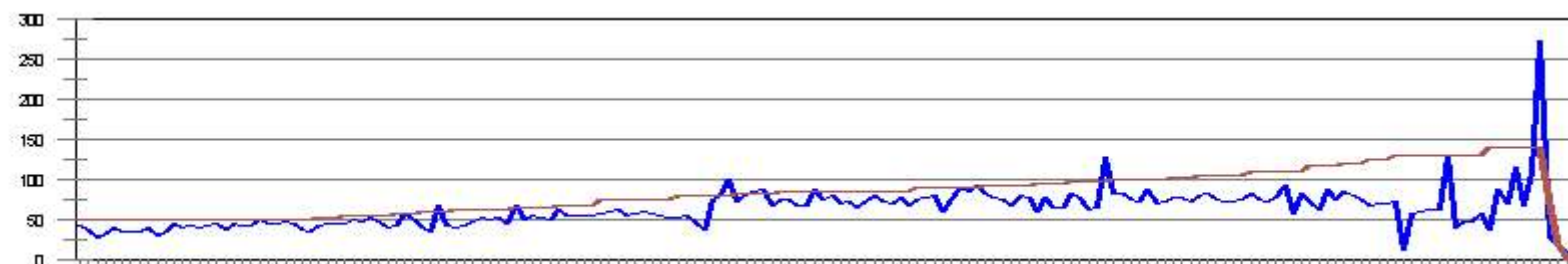
[\[17 Grosse Reger BACH Fantasia.wav\]](#)

We then encounter a typical Reger “crescendo/accelerando” fugue. It is instructive to look at this aspect closely. The crescendo of the recording follows Reger’s printed scheme very faithfully. What is more remarkable here is how closely Grosse follows the Reger metronome markings. As with Eddy, there are freedoms around the cadential points and new entries. But the considerable freedoms that Grosse allows himself on the final page are really quite daring for all that they are convincing - and also cannot be adequately represented graphically. If we watch the beats closely here we might recall the momentary quaver and crotchet deviation in Reger’s playing of his own Benedictus. Again we have to understand this as either a mistake or interpretation idiosyncrasy of the performer. In some bars we might also detect possible rubato playing, always assuming this is not a technical problem with the rolls.

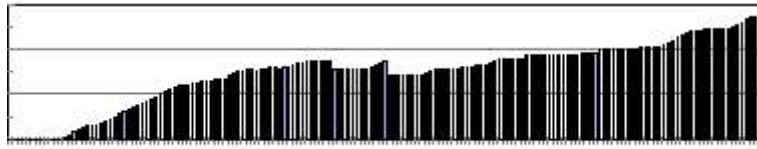
BACH Fuga

Tempo

Music; Grosse



Dynamics Music



Grosse



[\[18 Grosse Reger BACH Fuga.wav\]](#)

oooOOoooo

Rolls can unquestionably be used to yield important criteria for performance practice considerations; but they are most valuable only when the recording and playback technology is corrected.

However, what we learn from this is not always what we might want to.

From the Seewen holdings of Joseph Bonnet's roll recordings we observe that, for the Bach Passacaglia, an organo pleno is used. Pleno stands in one of the early manuscript copies of the work. The danger here is that we might try to see and use a logical performance paradigm. This is probably not the case. The less logical such paradigms are, the less we can expect to find performances on which we can base our own.

It is precisely here that we learn something from these recordings: the performance paradigms the organists used here appear illogical only to us, not to them. Tuned percussion registrations, such as bell (Glocken) and harp (Harfe) were not unique to Lemare. Assuming no Welte-technology playback errors, Bonnet also used these registers - quite logically - in his own *Angelus du Soir*. Nater used them in Widor's Symphony VI, in both 2nd and the famous 5th (sic!) movement and in a *Noël* of Dubois. As we have heard, Ramin used them in Reger's d-minor Toccata. Messner also used them in the Reger *Romanze* op. 69 Nr. 8 and Fischer in Liszt's *Weinen Klagen*. Bach specified them in Mühlhausen¹⁶. Medieval organs were frequently portrayed together with bells, as in the Rutland Psalter - in fact it is difficult to believe that organ and bell combinations are not one of the oldest demonstrable ensembles in music history.

Why do we so rarely hear this combination today?

These recordings also, therefore, encourage us to question our pre-conceived ideas about registration and performance practice, including questions about the acceptability of wrong notes. Investigation into the use of the tremulant could also turn up interesting new insights here.

oooOOOooo

I am delighted to say that the Seewen organ will soon be restored. This is a project involving a large and extremely rare Welte-Philharmonie organ combined with its own unique and comprehensive collection of priceless rolls.

Today, almost a century after the introduction of the Welte Autograph organ we stand on the threshold of preserving these rolls, which are currently in a rapidly-disintegrating paper medium, through the refined digital electronic systems of our own advanced technologies. This, quite apart from the all-important question of the preservation of a totally unique and important musical heritage, also has the advantage, through transcription, technical correction and publishing of recordings which can now be heard as they always should have been¹⁷.

oooOOOooo

First published in German (without sound samples) in *Questand II* (journal of the Anton Bruckner Private University, Linz, Austria) © 2006 ConBrio Verlag Regensburg.

For a German version of this paper version please see:
http://galifrey.triode.net.au/~rumsey/linz_reger_deutsch/

© / All rights reserved / Alle Rechte vorbehalten

oooOOOooo

Revision of 23 May, 2011

Acknowledgements

Dr. Christoph Haenggi, Leiter des Museums für Musikautomaten (Seewen, Switzerland)
 Dr. Rainer Kaiser (Mauchen, Germany)
 Dr. Dean Billmeyer (University of Minnesota, USA)
 Dr. Christopher Anderson (University of Buffalo, USA)
 Prof. Brett Leighton (Bruckner Universität, Linz, Austria)
 Nelson Barden (Boston, USA)
 Bernhard Prisi (Seewen, Switzerland)
 Elizabeth Rumsey (Sydney/Australia, Basel/Switzerland)

Bibliography and Sources

Weiss, Heinrich *Früh biegt sich, was ein Haken werden will* (Basel: F. Reinhardt, 1998) pp. 110-120. ISBN 3-7245-1012-8.

Th. Kuhn SA Männedorf *Bericht zur Welte-Philharmonie-Orgel*, (unpublished).

Verena Gäumann *Karl Matthaei 1877-1960: Leben und Werk eines Schweizer Organisten*.
 Ed. Dominik Sackmann (Florian Noetzel). ISBN 3-7959-0715-2

Kurt Binninger *Die Welte-Philharmonie-Orgel* in Acta Organologica Band 19 (Merseburger 1987)

Peter Hagmann *Das Welte-Mignon-Klavier, die Welte-Philharmonie-Orgel und die Anfänge der Reproduktion von Musik*, Peter Lang Verlag, Bern, 1984.

Q. David Bowers, *Encyclopedia of Automatic Musical Instruments*, Vestal Press, New York ISBN 0-911572-08-2 - p. 327.

Nelson Barden *Edwin H. Lemare* in The American Organist (1986 Vol.20. Nos. 1, 3, 6, 8.)

Database of Seewen Organ Rolls (compiled by David Rumsey 2002)

[Recording] *Max Reger spielt eigene Orgelwerke* by the Electrola Co. of Cologne, Germany (1961: 1C 053-28925) on the Welte organ in Wipperfurth when it was acquired by Dr. Weiss and immediately before it was moved to Seewen.

[CD Recordings] EMI 5CD set 7243 5 74866 2 0 CD 2 (Reger amongst others, recorded off the Welte organ in Linz am Rhein, Germany.

[In print] David Rumsey *Organists on a roll - the Welte organ's mechanically-recorded performances*. Conference Paper 2002 (Arizona). Due for publication 2005 by GOART (Göteborg, Sweden).

Appendix

In the Welte premises at Freiburg (Breisgau, Germany) there were two organs side-by-side, one for recording and the other for playing back. They no longer exist but apparently had specifications as given below¹⁸.

The exact specification of the recording organ is not fully clear. It appears that an instrument built in 1909 was enlarged somewhat in about 1913. The details of these instruments, so far as we can be sure, are sufficiently interesting to warrant their both being given here.

1909

(After **Kurt Binniger** in *Acta Organologica* 1987 Vol Bd.19)

| | | | | | |
|-------------------------------|---------------|----------|---------------------------|---------------------|-----------|
| Manual | | I | Cello ¹⁰ | m | 8 |
| Principal ¹ | m | 8 | Posaune | w or m | 16 |
| Traversflöte ² | w | 8 | Manual | | II |
| Viol d'orchestre ³ | m | 8 | Viola ¹¹ | m | 8 |
| Gamba ⁴ | m | 8 | Wienerflöte ¹² | w | 8 |
| Vox coelestis ⁵ | m | 8 | Aeoline ¹³ | m | 8 |
| Fagott ⁶ | papier-mâché | 8 | Bourdon ¹⁴ | stopped w | 8 |
| Flöte ⁷ | w | 4 | Horn ¹⁵ | w g ⁰ - | 8 |
| Harfe ⁸ | m (plates) G- | | Klarinette ¹⁶ | papier-mâché | 16 |
| Glocken ⁹ | m (tubes) | | Oboe ¹⁷ | g ⁰ - | 8 |
| Pedal | | | Posaune ¹⁸ | C-f ^{#0} - | 8 |
| Violon | open w | 16 | Trompete ¹⁹ | g ⁰ - | 8 |
| Subbaß | stopped w | 16 | Vox humana ²⁰ | m | 8 |

Compass: Man I: C-a³; Man II: C-g³ (sic!); Ped: C-f¹; *Action:* Pneumatic (pouch/membrane); *Location:* To the right of the playback organ. Both organs totally enclosed in a single swell-box; *Pipework:*

¹ "gentle singing tone"

² "internal" lips C-f^{#0}; g⁰- overblowing, typical flute tone;

³ "beautiful string-tone"

⁴ "stronger than the viol d'orchestre"

⁵ "Keen tone; tuned as a beating rank to be used with the viol d'orchestre"

⁶ C-b⁰ free reed with long wooden boots and covered resonators, very similar to the orchestral instrument; c¹- flue pipes with Fugara scaling.

⁷ C-b⁰ resonators tapering front to back; c¹- very wide scaling giving a round flute tone.

⁸ metal plates placed over wood or papier-mâché resonators and hit with pneumatic hammers.

⁹ C-g⁰ metal tubes, sounded as per Harfe.

¹⁰ often borrowed from the Violon 16.

¹¹ tonally very similar to a Geigenprinzipal

¹² harmonic flute, bass only (not harmonic in the trebles) scaled 2 semitones narrower than Traversflöte in Manual I.

¹³ somewhat more gently voiced than the Man I Viol d'orchestre

¹⁴ voiced to sound full and round

¹⁵ Flue rank of special construction - as pictured in *Acta Organologica* - but was not harmonic, possessing a very carrying tone;

¹⁶ free reed, similar to the Fagott, but with wide-scaled, open resonators. Very similar to the

characteristics of the orchestral instrument.

¹⁷ Plays from C in the Tutti. Beating reed full-length resonators, lengthened tops and turning caps.

¹⁸ conical tops

¹⁹ continuation of the Posaune

²⁰ built as a Silbermann Vox Humana

| c1913 | | | |
|---------------|----|--------------|-------------------------------|
| Manual | | Wienerflöte | 8 |
| Bordun | 16 | Aeoline | 8 |
| Principal | 8 | Bordun | 8 |
| Traversflöte | 8 | Dolce | 4 |
| Gambe | 8 | Quinte | 2 ² / ₃ |
| Viol. d'orch. | 8 | Clarinete | 16 |
| Vox coelestis | 8 | Trompete | 8 |
| Flöte | 4 | Horn | 8 |
| Piccolo | 2 | Oboe | 8 |
| Sesquialter | | Pedal | |
| Fagott | 8 | Violonbass | 16 |
| Harfe | | Subbass | 16 |
| Glocken | | Cello | 8 |
| Manual | | Gedackt | 8 |
| Viola | 8 | Posaune | 16 |

Compass: Manuals: C-a³ (c4?); Pedals: C-f¹(?); *Accessories*: Vox Humana Echo (opens/shuts Vox Humana's separate box lid); Tremolo. Fully enclosed; *Action*: Pneumatic; *Location*: In a spacious but carpeted room in company premises; *Console*: Mounted on a podium, projecting forward from the facade, the organist facing the instrument; *Pipework*: This instrument possibly inherited much of the 1908 organ's pipework; Destroyed during an air raid in 1944.

The current specification of the Seewen organ given below - built between 1912 and 1920, enlarged by Welte in 1937 and 1978 - can here be compared with the above Freiburg recording/playback organs as well as some Welte organs connected with the USA. The organ in the New York recording studio possessed 3 manuals and was tonally somewhat differently endowed. This instrument, and the rolls made in New York, represented a variant musical world to that associated with Freiburg¹⁹. (The New York recording apparatus is also now preserved in Seewen.) Lloyd Davies was a former employee of the US branch of Welte. He relayed a "typical Welte specification". Of considerable importance also was the fact that he noted the relative dynamic power that the ranks had to have - given here in square brackets - so ordered that the rolls would play with the correct musical dynamic balance. "Germany" was Davies' recollection of a typical imported Welte organ coming from Freiburg. It corresponds to one of the smaller of Welte's models²⁰.

| Seewen | Freiburg | NY | "Lloyd" | "Germany" | |
|-------------------------------------|--------------------------------------|---------------------------------------|--------------|------------------|-----------|
| Manual I | I Manual | Manual | Manual | Manual | |
| Bordun | 16 Bordun | 16 | | | |
| Principal | 8 Principal | 8 English Diap | Diapason | [3] Principal | |
| Traversflöte | 8 Traversflöte | 8 Concert Flute | Fl traverso | [2] Fl. Traverso | |
| Gedeckt | 8 | | | | |
| Gambe | 8 Gambe | 8 Viola | Violin solo | [4] Gamba | |
| Viol. d'orch. | 8 Viol. d'orch. | 8 Dulciana | VdO | [1] VdO | |
| Vox coelestis | 8 Vox coelestis | 8 Unda Maris | Voix Celeste | [2] Voix Celeste | |
| Octave | 4 | | | | |
| Rohrflöte | 4 Flöte | 4 Conc. Flute | 4 Har. Fl. | 4[3] Flute | 4 |
| Nachthorn | 2 Piccolo | 2 | | | |
| Mixtur | Sesquialter | | | | |
| Trompete | 8 | | | | |
| Fagott | 8 Fagott | 8 French Horn | Bassoon | [5] Faggot | |
| Harfe | Harfe | Harp | Harp | Harp | |
| Glocken ¹ | Glocken | | | | |
| Manual II | II Manual | Solo | Solo | Solo | |
| Viola | 8 Viola | 8 Open Diap | Diap 8-4-2 | Diapason | |
| Harmoniefl. ² | 8 Wienerflöte | 8 Bourdon | Bourdon | [2] Bourdon | |
| Aeoline | 8 Aeoline | 8 Philomela | Philomela | [3] Weiner Flute | |
| Bordun | 8 Bordun | 8 Flauto Dolce | Flauto Dolce | [1] | |
| Blockflöte | 4 Dolce | 4 Gamba | V.d'Gamba | [2-3] Viola | |
| Quinte | 2 ² / ₃ Quinte | 2 ² / ₃ Aeoline | Aeoline | [1] Aeoline | |
| Terz | 1 ³ / ₅ | Clarinet | 16 Clarinet | 16[3] Clarinet | 16 |
| Quintzimbel | 1 | Cornoepan | b+t Cor Angl | b+t [4-5] | |
| Sesquialter | | Muted/Trpt | | Trumpet | b+t |
| Clarinette | 16 Clarinette | 16 English Horn | | Horn | (?labial) |
| Trompete | 8 Trompete | 8 Oboe Horn | Oboe | [3] Oboe | |
| Horn | 8 Horn | 8 Vox | Vox | [2-3] Vox | |
| Oboe | 8 Oboe | 8 | | | |
| Vox humana | 8 | | | | |
| | | Glockenspiel | 2 | | |
| Pedal | Pedal | Pedal | Pedal | Pedal | |
| Violonbass | 16 Violonbass | 16 Tibia Minor | Bourdon | Subbass | |
| Subbass | 16 Subbass | 16 Viola | Violone | Violone | |
| Gedackt | 16 Cello | 8 Concert Fl | 8 Cello | 8 Cello | 8 |
| Gedackt ³ | 8 Gedackt | 8 Tuba Profunda | Trombone | Posaune | |
| Posaune | 16 Posaune | 16 | | | |
| [Trompete | 8 | | | | |
| [Clairon | 4 | | | | |
| [Sing.Cornett | 2 | | | | |
| ¹ 1937? | | Echo | | | |
| ² original = Wienerflöte | | Cor de Nuit | | | |
| ³ spielbar nur von | | Viola Aetheria | | | |
| Rollen | | Vox | | | |

1. Binniger, Kurt, *Die Welte-Philharmonie-Organ*, Acta Organologica Vol. 19, Berlin - Kassel 1987 ISBN 3-87537-227-1

2. The symbol of a smoking chimney in those days did not have the negative connotations of "environmental pollution", rather that this was a very well-to-do business with the latest equipment, particularly steam-powered machinery. The house organists were Franz Philipp, Johannes Diebold, August Heim, C. Hofner and Bernard ten Cate. Kurt Binniger also recorded rolls for them.

3. For further details see David Rumsey *Organists on a roll - the Welte organ's mechanically-recorded performances*. Conference Paper 2002 (Arizona). GOART (Göteborg, Sweden)

4. Heinrich Weiss, Festschrift on the occasion of the dedication of the organ.

5. The system is actually far more complex than it sounds from this summary explanation. Depending on which couplers were drawn and which of the 30 lowest notes in the Hauptwerk and/or Pedal were played, the advances or delays could vary. For more details of how it was achieved see Kurt Binniger's article in Acta Organologica Op. Cit.. To be noted, however, is that whenever the second manual to pedal coupler is drawn (or notes on the second manual play through borrowing or extension) the precise point at which the organist played the original pedal note can be determined. This is the principle Barden adopted to correct the manipulated multiplexing of the pedal in the original roll editing and copying processes.

6. Communication from Nelson Barden 2004/5

7. From discussion with Nelson Barden regarding his observations during recording sessions.

8. Verena Gäumann *Karl Matthaei 1877-1960: Leben und Werk eines Schweizer Organisten*. Ed. Dominik Sackmann (Florian Noetzel). ISBN 3-7959-0715-2

9. It should be again noted that there was no adjustment forward or backwards of notes from the coupled second manual. This allows an easy determination in re-establish the exact point at which the organist originally played the pedal note.

10. Some people think the first recording "sounds better." And that may well be the case from the recording, acoustic, and other qualities of the Seewen organ as opposed to that in Boston, or the recording of them. Our perceptions and feelings, as Professor Leighton quoted - from Hill - are not the prime question here. In spite of acoustic, organ, recording techniques etc. the original performance of Lemare is far more accurately reproduced in all technical aspects with the Boston CD - not to speak of the fact that all the notes are actually played and none are missing.

11. It is to be noted that this performance also deviates from Straube's own Bach edition.

12. Ed. Stanley Sadie, *New Grove Dictionary of Music and Musicians*, MacMillan Publishers Limited, London, ISBN 0-333-23111-2

13. Peter Hagmann *Das Welte-Mignon-Klavier, die Welte-Philharmonie-Orgel und die Anfänge der Reproduktion von Musik*, Peter Lang Verlag, Bern, 1984.

14. In that Reger had apparently left the Hauptwerk uncoupled to the Pedals in the first and last sections he precipitated the maximum sidereal shift in these parts of the piece. Which means that if we want to emulate this as a performance practice then we need to realize that this anticipatory manner of playing the pedal was never so great as it might appear because a component of it was assuredly the technology and not Reger. Apart from this we might also observe that the effect is most noticeable on the first note of a pedal entry - the later ones are much closer to a good ensemble. Was he out of practice? Was it an unimportant performance paradigm to play precisely together? Was he simply drunk? Or could this also be connected with the fact that these recordings were made relatively early in the history of Welte (1913) and that the technology - especially that of roll editors - was still in its development stages?

15. It should be noted here that, for a German of his era - active in Berlin - he also played and recorded contemporary French works of his own era, e.g. Widor. In this way he singles himself out from most of his contemporaries.

16. In Smets *Die Orgelregister ihr Klang und Gebrauch* Rheingold-Verlag Mainz, 1948, 7th Edition, 1968, under the entry "Glockenspiel" there is a list of many organs with one or more such registers, including (16.-18. Century): "Hamburg, Jakobikirche; Altenburg, Schlosskirche; Breslau, St. Maria Magdalena; Erfurter Augustinerkirche; Halberstadt, Katharinenkirche; Königsberg, Haberbergerkirche and Neustädterkirche; Magdeburg, St. Ulrich". Then, "after a long time the Glockenspiel reappears towards the end of the 19th century ...": Amongst the "best" of these are: "Berliner Dom and Wilhelm Gedächtniskirche (Sauer); Braunschweiger Dom (Furtwängler & Hammer 1901); Breslau Festhalle (one each in 2nd and 5th manual); Steinmeyer organs in Augsburg, Stadthalle and Ludwigshafen, Meeting Hall of I. G. Farben & Co. (Pedal and Fernwerk); Dortmund, Rainoldikirche; Erfurt, Predigerkirche; Eßlingen, Stadtkirche; Hamburg, Michaeliskirche (one high and one low-pitched); Ilmenau, Stadtkirche; Music Exhibition Frankfurt (Main) 1926, all built by Walcker; Heidelberg, City Hall (Voit). Furthermore there are reports of bells, including sleigh bells in America and Spain (the Campanologo respaldo, in Sevilla Dom). One could also add Sydney Town Hall here.

17. Or, with another mouse-click, the way they sounded then. It is to be stressed here that the exact playing manner of the organists, whether good or bad, whether together or not - all the detail of their performances can now be reproduced in spite of the earlier intervention of Welte's system or their editors.

18. Kurt Binninger, Op. Cit.

19. The repertoire originating from the New York studio recordings was slanted more towards theatre and cinema organ music. While Freiburg included these in principle it formed only a backdrop to the classical repertoire from pre-Bach to post-Franck, Reger and the "moderns" of that era.

20. The first column is from Seewen, all others are personal communications from Nelson Barden in Boston at the end of 2004 or beginning of 2005.