Phantom Hands Will Live Forever: Reading the Player Piano Anew
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Abstract
The player piano is one of the most overlooked musical instruments of the early 20th century. Often confined to a footnote, the instrument sits between domestic musicianship and recording technology, and is posited as the missing link between the two. I present here a new historical reading of the player piano as a key transitionary instrument from the industrialisation of the nineteenth century into the electronification of the twentieth, and with it its representation of capitalism and commerce. I do this by drawing together the fields of organology, science and technology studies, literature studies, and cultural critical theory. I start with an overview of the instrument’s design and history, and illuminate its connections backwards to the automata of the eighteenth century. I then situate its invention and exponential growth in popularity within the early twentieth century music industry, and the economy at large, whose pressures ultimately saw its downfall. Finally, I examine the response of the North American author William Gaddis to the player piano, and how this directs us to consider the player piano through the critical lens of Adornean late style as a new way of interpreting the instrument within our broader organological chronology.

Keywords
Organology; material culture; player piano; critical theory; American literature
Phantom Hands Will Live Forever: Reading the Player Piano Anew

The player piano is one of the most overlooked musical instruments of the early twentieth century. Often confined to a footnote, the instrument sits between domestic musicianship and recording technology, and is often posited as the missing link between the two.¹ Coupled with increased scholarship on early popular music and technology histories, its inclusion in popular culture has now brought it to the fore as a significant corner of musicological concern, particularly as a means to explore performance practice through pre-phonograph recordings.² As a musical instrument, the player piano still remains little explored, yet its construction stands for the fin de siècle’s mechanisation across technologies, as well as the theoretical debates on what constituted art when performed by machines.

I present here a new historical reading of the player piano as a key transitional instrument from the industrialisation of the nineteenth century into the electrification of the twentieth, and its representation of capitalism and commerce. I do this by drawing together the fields of organology, science and technology studies, literature studies, and cultural critical theory. I start with an overview of the instrument’s design and history and illuminate its connections backwards to the automata of the eighteenth century. I then situate its invention and exponential growth in popularity within the early twentieth century music industry, and the economy at large, whose pressures ultimately saw its downfall. Finally, I examine the response of the North American author William Gaddis to the player piano and how it directs us to consider the player

² Ongoing work by the Grassi Museum für Musikinstrumente at the University of Leipzig in Germany, and the Musical Instrument Collection at the University of Pavia in Cremona, Italy, has seen the recording and preservation of thousands of piano rolls. As piano rolls can only be played by corresponding pianos, with each maker using a slightly different system to retain income from piano roll sales, this preservation is essential to create a permanent record not dependent on the continual functioning of the original piano.
piano through the critical lens of Adornean late style as a new way of interpreting the instrument within our broader organological chronology.

**Tempo**

The player piano (also Pianola, self-playing piano) occupies a curious place within the field of musical instrument studies. On the one hand, the most commonly recognised player piano is a fully functioning piano that can be played with expression by a performer and whose history is entwined with that of the domestic piano market boom of the nineteenth century. On the other, it is aligned with recording technology, namely the phonograph with which it wrestled for attention as a reproducer of performances, and other mechanical predecessors like the barrel organ and orchestrion. The player piano was by no means the first automated instrument, but it was the first mainstream, practical, and relatively affordable one. Player pianos operate by reading a perforated scroll, each hole corresponding to a key and duration, and could be described as ‘digital’; as such, through the player piano (and the orchestrion before it) we can see the recording of sound being made digitally before the analogue recording of the wax cylinder.

The etymology of ‘player piano’ is somewhat misleading and obfuscates the two main types of automated instrument: a push-up ‘piano player’ device that performed on a standard piano and a ‘player piano’ where the mechanism was integrated with the piano and was originally operated by a performer, later to be driven by an electric motor that required little to no human intervention. The push-up ‘piano player’ was patented by Edwin Scott Votey in 1897 and based on the technology found in self-playing orchestrions and organs that used perforated

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4 Wente, *Musical Labor*, 5
rolls of paper as their scores.\footnote{The patent for the push-up “pneumatic piano attachment” (US-0650285-A) was originally filed in January 1897, and renewed in February 1900. A further patent for a keyboard playing mechanism with retractable levers was filed in November 1899, renewed January 1902 (US-0696216-A). For a detailed history of the push-up player see and the recent article by William E. Hettrick, “Out in Front: The American Cabinet Piano-Player at Home and Abroad,” \textit{Journal of the American Musical Instrument Society} XLIX (2023): 5–60.} Votey was no stranger to patenting improvements to musical instruments: his time working for the Whitney Organ Company saw him secure patents for the organ in the decade before he turned to the piano player.\footnote{For example, in 1884 he secured a patent for the “key frame brace for reed organ” (US-0305724-A), and in 1887 he secured two further improvements to the design of the key block (US-0374722-A) and the foundation board and related components (US-0374721-A).} The patents demonstrate Votey’s understanding of mechanical construction, particularly his 1890 patent for the “driving and governing mechanism for organs” that permitted the player to change the speed of the motor so as to alter the volume by means of a treadle and was said to be particularly effective in organs with electric motors.\footnote{US-0407802-A.} Votey’s push-up piano player was a large cabinet with wooden “fingers” that were to be aligned with the piano keyboard. But these push-up players were prone to faults, were difficult to manoeuvre in line with the keyboard, and only performed 65 of the 88 keys resulting in the original piano scores being ‘mutilated’ to work within this constraint.\footnote{Wente, \textit{Musical Labor}, 75.} Marketed by the Aeolian Company as the Pianola, it and devices like it did not remain popular for long as they were quickly superseded by the player piano with integrated self-playing mechanism, the model more readily recognised today. Like the push-up player, it was driven by foot treadles that pumped air through the bellows working on the principal of a vacuum to seal the valves; the treadles were gradually replaced by an electric motor. Control on these instruments was initially limited, but further developments introduced tempo control via the Metrostyle by the Aeolian Company in 1903,\footnote{See description from the first roll catalogue of 1903 reproduced in full “The Metrostyle: The Aeolian Company”, \textit{The Pianola Journal} 26 (2019): 55–67.} quickly followed by the Welte-Mignon instrument of 1904 known as a
‘reproducing piano’ due to its ability to replicate full expression in the music.\textsuperscript{10} In less than a decade, the instrument had moved from Votey’s separate push-up device to an integrated mechanism, and then further adaptations sought to transform these automated performances into something more representative of human musical expression.

\textless Figure 1: Player piano by Straube Piano Co., Hammond Melo-Harp model, held by the National Music Museum, University of South Dakota, object 14434. Image reproduced with kind permission of the National Music Museum.\textgreater

\textbf{Mechanical Beasts}

A move to locate the human in the machine was a process that had been explored from at least the eighteenth century through the development of increasingly sophisticated clockwork automata. Arthur W. Ord-Hume’s history of the player piano correctly positions the instrument as a product of mechanical music that had been evolving from at least the sixteenth century. His discussion observes keyboards from mechanical spinets (music-boxes to full-sized instruments) to self-playing pianos (differing from the player piano discussed here), the barrel organ and barrel or cylinder piano (more appropriately referred to as a mechanical dulcimer), and larger multi-instrument creations such as the orchestrion.\textsuperscript{11} All of these instruments were melodically

\footnotesize{\textsuperscript{10} For a history of Welte-Mignon see Charles Davis Smith and Richard J. Howe, \textit{The Welte-Mignon: Its Music and Musicians} (New York: Vestal Press, 1994), and also Hettrick, “Out in Front”.
\textsuperscript{11} The orchestrion was a very large cabinet ‘instrument’ containing multiple musical instruments, namely organ pipes, a piano, and percussion, but sometimes also instruments like the violin. The orchestrion, like other self-playing instruments, read the score from a pinned barrel or music roll.}
driven by some form of pinned spindle or barrel and shared the principles of automated music with music boxes and musical clocks.

Automated musical instruments, and automata more generally, gained traction during the eighteenth century due to improvements in the clockmaking technology that underpinned automata mechanisms, as well as an increased understanding of machinery that resulted from developments in machine-based manufacturing. The automata of the period were a linchpin between Enlightenment ideas of modernity and the industrial revolution and ultimately challenged perceptions of the “human-machine boundary”. They also played into the Enlightenment’s delight in spectacle and desire to experience the new; Jacques de Vaucanson’s automaton Flute Player (1737) was designed to impress scientific circles as well as the general public. This intersection between musical instrument manufacture and automata is further evidenced by the automata that ‘play’ the piano and dulcimer and were manufactured by clock rather than instrument makers. Conversely, John Joseph Merlin, the creator of the famous Silver Swan (with music box) and other automata, was a maker and inventor of musical instruments amongst an assortment of other innovations. What automation brought, for both musical instruments and automata, was a chance for precision not reliably deliverable by the human. Johann Joachim Quantz, for example, saw the potential for musical machines when he wrote that they could “play certain pieces with a quickness and exactitude so remarkable that no

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15 Voskuhl, *Androids*.
human being could equal it either with his fingers or with his tongue.”\textsuperscript{17} This quest for perfection and replicability echoed through industry as manufacturing processes became increasingly mechanised as a means to improve quality and yield while reducing labour costs.

We therefore have two forms of automated action at play: the technology for an instrument to play unassisted, producing the sounds in the correct order and manner; and the ability for the music to be accurately read by the machine to trigger the action. The player piano reads a punched roll as the score, a technology widely accepted to have been influenced by Joseph-Marie Jacquard’s punch card system for silk looms, with a similar system later patented by Claude-Félix Seytre in 1842. David Suisman, in his article on mechanical music, highlights the reciprocity between musical automata and wider industry as a “chain of manufacturing innovation” stretching from Jacquard’s punch-card reading loom back to the early part of the eighteenth century, oscillating between industry and music. That is, Jacquard was influenced by the automaton of Jacques de Vaucanson; Vaucanson was influenced by Jean-Baptiste Falcon’s use of punched cards for looms; and Falcon drew inspiration from Basile Bouchon’s 1725 innovation of punched paper rolls to programme looms, said to have been based on “the control of musical automata by pegged cylinders”\textsuperscript{18} The accuracy and detail of the score—which increased as the instrument’s capability expanded—and the ability to interchange them freely, is what contributed to the player piano’s astronomical rise in popularity. As such, the convergence of early programming technology with a highly developed understanding of automata, and the manufacturing processes to reliably mass produce the components, resulted in an instrument that


drew parallels with more general mechanisation of society. Like the automata of the preceding century, the player piano therefore stood as what Adelheid Voskuhl calls a “symbol of industrial modernity”.  

Riding the Bell Curve

The player piano’s story is also one of commercialisation. The invention of the push up piano player and later player piano could be framed as the industry’s attempt to eke out a longer life for the humble domestic piano market during an age of rapid technological advancement across the Western world—an attempt that was undeniably successful since reports in the music trade press claimed that factories could not keep up with demand.  

Newspapers and music trade periodicals of the early twentieth century also contained numerous advertisements for the player piano for purchase or hire. For example, a full-page ad by The Orchestrelle Co. (a brand owned by Aeolian), titled ‘The Pianola Piano and its Evolution’, tells the story of the player piano complete with small accompanying illustrations. The ad offered instruments by Broadwood, Munck, and Weber for purchase in full or by “Hire System”, or by part exchange, increasing access to what would otherwise be a prohibitively expensive item (120–200 guineas, equating to 126–210 British pounds).  

<Figure 2: Full page advert by The Orchestrelle Co., The Illustrated London News, December 2nd 1905. Owned by author>

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19 Voskuhl, Androids, 8.
20 For example, see Musical Opinion & Music Trade Review 26: 336 (1905): 902–03.
21 See The Illustrated London News (2 December 1905). See also Wente’s discussion of North American marketing of the pianos (chapter three, Musical Labor).
The reception of the player piano was decidedly mixed. Producing music in the home without the need for musical ability was an attractive prospect and fostered an acquaintance with, and love of, piano music without the constraints of attending a concert. In 1924, Hans Heinz Stuckenschmidt saw mechanical music as both the future of music-making and an efficient means of preserving classical music, which was otherwise an expensive luxury. Conversely, the loss of piano skills, and the encouragement of a passive rather than active engagement with music, fed into the grumblings around the mechanisation of the arts and the removal of the artist from the creative process. While the player piano was most popular in North America, there appears to have been a sizeable interest in Europe. In Britain, pianos and player pianos were imported from North America, although their popularity was limited in contrast to British-, German-, and French-made instruments. A 1912 American report on the foreign trade of musical instruments provides import and export data on the piano trade in 1910 and 1911, though the data do not distinguish between piano types. Reports from the regional consuls do, however, elucidate the position of American pianos and player pianos, where it is noted that by 1912 the player piano trade was already in decline, resulting in “stocks…being sold…at reduced prices to save the expense of reexporting”, and in London that the player piano was more popular than the push-up piano player. While American instruments were apparently “favourably regarded”, issues of the instruments succumbing to the damp climates of places such as Edinburgh in Scotland and Belfast in Northern Ireland, and the British preference for smaller instruments in

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22 Piano rolls could be loaned from roll libraries, expanding domestic musical horizons without great additional cost on top of the piano purchase or hire itself. See Cecilia Bjorken-Nyberg, The Player Piano and the Edwardian Novel (Abingdon: Routledge, 2015).


24 Walter Benjamin was particularly vocal about this, as was Theodor Adorno.

comparison to the “large and ungainly” American pianos, meant that they could not compete with the European manufacturers.\textsuperscript{26} In France, player pianos and push-up piano players were said to be mainly from American makers who had factories in Britain and Germany (likely the Aeolian Company), and while Germany had a variety of makers, those by the American Aeolian Company led the market.\textsuperscript{27}

The popularity of the instruments by Aeolian Company was in part due to their expansion overseas through the acquisition of other manufacturers, as well as the shrewd marketing of their products. Led by the company’s founder, William B. Tremaine, marketing by Aeolian relied on celebrity endorsements, such as people of high society (e.g. royalty and politicians), business leaders, and musicians. This use of endorsement was a longstanding ploy that had been exploited by many musical instrument manufacturers in the preceding century, but when combined with the proliferation in print culture of the turn of the twentieth century, particularly specific presses such as the music periodicals, the marketing was targeted and tailored for the anticipated readership. Tremaine’s marketing of the company sought to “integrate itself into the existing piano business, not replace it”, permitting a partnership with Steinway, and through the building of the Aeolian Hall in New York, placed the company at the centre of musical performance in the region.\textsuperscript{28} The player piano’s commercial success, therefore, was in debt to its marketing by companies such as Aeolian as much as its ability to meet the desire for music in the home. While the Wall Street crash of 1929 undoubtedly impacted this American-centred industry, the parallel

\textsuperscript{27} Baldwin, \textit{Foreign Trade}, 32–38. The report provides evidence for the import to Germany in terms of shipped weight: in 1910, 71 tonnes of player pianos and piano players were imported from America, in contrast to the 20.7 tonnes from Britain, with a combined value of $99,484 (compared to $68,068 in 1909).
rise of recorded music via the phonograph, and then the radio, ruled the player piano near obsolete.  

**In Memoriam**

Despite its relatively short-lived popularity, the player piano has been immortalised in popular culture in a way not seen for any other musical instrument apart from perhaps the electric guitar. Most recently, the player piano was brought to a new audience in the opening credits of HBO’s *Westworld* series, where it served as a metaphor for the androids at the heart of the story, as well as a device that, like the androids, simultaneously preserved and recreated the past. The inclusion of the player piano was built on an American literary interest in the instrument, and its associations with science fiction in the hands of authors such as Kurt Vonnegut (*Player Piano*, 1952), where the piano represents mechanisation and mass production, and with the life work of William Gaddis. The player piano also appeared in British literature as a direct reflection of the instrument’s increasing presence and was used to symbolise both “passive consumerism and noise” and “ineffective and degrading modes of life”, themes shared with the work of transatlantic authors.

William Gaddis’s relationship with the player piano is unique, and the complexity of its integration into his fictional works permits me to reconsider the theorisation of the player piano through the lens of Adornoan late style, and in doing so to critique the musical instrument’s place within organological chronology. William Gaddis first encountered the player piano in a

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30 See Rachael Durkin, “Westworld’s player piano is the great character that keeps getting overlooked,” *The Conversation* (18 April 2018) [https://theconversation.com/westworlds-player-piano-is-the-great-character-that-keeps-getting-overlooked-95238]

scholarly sense when he was working as a factchecker for *The New Yorker* (1945–46), where he was tasked to review an article about the instrument. The article spurred Gaddis to commence his own research into the history of the player piano, with the aim of publishing an article of his own in *The New Yorker*. Two versions of this article survive (both from 1946), though both were rejected.\(^{32}\) He returned to this project in 1950, having an excerpt published in *The Atlantic Monthly* entitled ‘Stop Player. Joke No.4’ in 1951, and returned again towards the end of the decade with plans to write “a satirical celebration of the conquest of technology…” under the title ‘Agapē Agape: The Secret History of the Player Piano’\(^{33}\). A fictitious work of the same name appears in his novel *J R* (1975), a lengthy tome that pivoted around the successes of an eleven-year-old entrepreneur and the player piano business.\(^{34}\) Unsuccessful again with his revised plan, he revisited the work in 1995 and sold it to Henry Holt publishers for an advance of $150,000, with publication planned for 1998; the deal ultimately fell through when the editor (Allan Peacock) left the publishing house.\(^{35}\) The final version of *Agapē Agape*—the semi-fictitious, semi-autobiographical dramatic monologue of a dying man as considered here—was finally published by Viking Penguin in 2002, three years after his death and quite removed from its factual and historical origins.

**Side-Step: A Brief Comment on Late Style**

Late style is a knotty, contentious topic. Most famously defined by Theodor Adorno in *Late Style in Beethoven* (*Spätstil Beethovens*) of 1937, Adorno late style can firstly be seen in a


\(^{34}\) For a brief summary of *J R* see Suisman, “Sound, Knowledge”, 13–34.

gerontological sense, whereby the artist creatively reconciles with their own past through their final artistic outputs. In his discussion of Beethoven’s late period and his mass of 1823 Missa Solemnis—an alienated masterpiece which for Adorno rejected convention—Adorno wrote that all great composers, from Bach to Schoenberg “had to dredge up the past in the anguish of the present as sacrifices to the future”.36 Secondly, late style can be found as a product of conflict within an artist’s life, and perhaps as a critique of their contemporary culture. Late style is therefore not just the final retrospective glance of the artist but can be found at professional and personal junctures throughout their life. Adorno’s theory of late style is intertwined with his other (often polemical) ideas, and, as with much of Adornean thought, is entirely focussed on the work of white privileged men.

While perhaps divisive, Adorno’s writings have provided a starter for discussions around phenomena such as late style, and in recent years a number of literary, and now music scholars have provided their own readings of the theory.37 Of particular note here, Linda Hutcheon and Michael Hutcheon have queried the generalizing tendencies of the late style approach, instead of a more nuanced, individualised reading, with which I am inclined to agree.38 Late style, for Adorno, was applicable to elite classical composers, and then only those with whom he felt some affinity. Edward W. Said’s reading of late style removed it from the very narrow confines of Adorno’s world and permitted its application to other musicians, such as Glenn Gould, who straddled the worlds of elite musicianship and the commercialised recording industry.39

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Extrapolating Adorno’s late style for use in modern scholarship is undoubtedly challenging, and while we must remain sympathetic to its origins, the theory now lends itself as a meaningful way to reflect on literary works as well as music and the musicians documented in recordings. Late style has also been approached as a concern of popular music, quite removed from the anti-popular, anti-jazz, and anti-culture industry restrictions imposed by a strict reading of Adorno. For example, Stephen Graham’s critique of late style in popular music through the work of the Beach Boys, and forthcoming work from Michael Saunders that positions the collaborative jazz album *Mingus* by Joni Mitchell and Charles Mingus as a late style work of both stylistic crisis (Mitchell) and end of life (Mingus), both challenge the highbrow focus of earlier late style critique.\(^4\) Here, I use this more recent scholarship, and particularly Hutcheon and Hutcheon’s work, as a route to consider an individualised response to Gaddis and the player piano, and perhaps controversially to apply the tenets of late style to the critique of a physical object.

*Agapē Agape* as the Player Piano

*Agapē Agape* has been addressed by a number of scholars since its publication and is nearly always approached as a literary piece simultaneously in sync and confusingly at odds with Gaddis’s life work; it is also widely accepted as a final critique of mass culture.\(^4\) The player

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\(^4\) For example, Suisman’s (“Sound, Knowledge”) brief consideration of the text frames the player piano as a means by which Gaddis could critique larger concerns about mechanisation and the arts. Alan Shockley (*Music in the Words: Musical Form and Counterpoint in the Twentieth-Century Novel* (Farnham: Ashgate, 2009)) likens the work to Anthony Burgess’ *Napoleon Symphony*; Michael Wutz (“Writing from between the Gaps: Agapē Agape and Twentieth-Century Media Culture,” in Joseph Tabbi and Rone Shavers, eds., *Paper Empire: William Gaddis and the World System* (Tuscaloosa, AL: The University of Alabama, 2007)) observes the text as emblematic of Gaddis’s view on mass media culture.
piano in *Agapē Agape* is often cast aside as a by-product; it occupies the periphery of critical commentary of the novella and is never truly synthesized with the text. But when the player piano hidden in the margins is brought into focus, *Agapē Agape* is evidently a prime example of a late style work. Taken together, the entwinement of Gaddis’s final work, the foregrounding of his lifelong obsession with the player piano, and the history of a musical instrument that in itself could be regarded as the final artistic output of the piano family all constitute a complex and reciprocal example of late style in action. In the way that Andrew Durkin sees the player piano as a site for textual criticism,42 I too approach the object as text, and it is this late style reading that permits a metaphysical reinterpretation of the player piano itself.

The Penguin imprint of *Agapē Agape* runs to just 96 pages in rather large type—a startling juxtaposition to the extended length of Gaddis’s four novels.43 This short monologue is a single extended paragraph and hurtles through a somewhat bewildering number of the protagonist’s concerns during his final phase of life. While the nature of this work’s layout is helpful for conveying the onslaught of fragmented thoughts running through a diminishing mind, what has yet to be considered is its direct imitation of a piano roll. Player piano rolls generally spin at a set tempo until the end of the roll is reached,44 so I read the continuous paragraph of *Agapē Agape* as a piano roll: the novella starts, runs at a set pace, and then ends with no rubato or breath. It is a relentless work where the only pauses are scripted by repeated words and phrases; the natural pauses in speech captured by text are lost by the diversions in thought and sporadic punctuation.

43 *The Recognitions* (1955); *J R* (1975); *Carpenter’s Gothic* (1985); *A Frolic of His Own* (1994).
44 This is reliant on the operator continuing to pump the bellows adequately in the days before an electric motor was introduced. Later player pianos offered some control of the tempo during performance.
We can dissect this idea of a piano roll a little further. The work opens with:

No but you see I’ve got to explain all this because I don’t, we don’t know how much time there is left and I have to work on the, to finish this work of mine…

(1)

We enter part way through a thought, as if we have stepped into the concert hall a few moments too late to hear the first few chords. In music, it sounds like an anacrusis of a work with an unstable beginning, such as Chopin’s waltz Op.69 No.1 (Ab Major), where we fall chromatically through the anacrusis to land on chord IV and fail to make land until the end of the first rendition of the theme (bar 16). Did Gaddis conceive Agapē Agape as more than just the image of a spinning piano roll, equipping it with a sense of a musical voice? Certainly, ideas spin and repeat like musical motifs (an idea that hasn’t escaped previous scholars).45 For example, the ‘authenticity’ motif—an idea rooted in Walter Benjamin’s The Work of Art in the Age of Mechanical Reproduction46—starts with the end of authenticity during an imagined conversation with Walter Benjamin and Johan Huizinga (punctuation as given):

Clones and products of the imitative arts the pantomimics didn’t know whether what they were cloning was good or bad,[…]collapse of authenticity collapse of religion collapse of values[…] (33)

Authenticity’s wiped out when the uniqueness of every reality is overcome by the acceptance of its reproduction, so art is designed for its reproducibility. (34–35)

The wiping out of authenticity is continued but becomes more emotive:

45 For example, see Shockley, Music in the Words; Anja Zeidler, “Mark the Music: J R and Agapē Agape,” in Paper Empire; Jeff Bursey and Anne Furlong, “Cognitive Gothic: Relevance Theory, Iteration, and Style,” in Paper Empire.

46 Gaddis only became acquainted with the writings of Benjamin quite late in his career when the first English translations of his The Work of Art in the Age of Mechanical Reproduction was published. See Moore, Secret History, 261.
[...] the heart of it, where the individual is lost, the unique is lost, where authenticity is lost not just authenticity but the whole concept of authenticity, that love for the beautiful creation before it’s created [...] (37)

But authenticity is then redeemed, found in the rolls of player pianos:

These Welte, Duo-Art Pianolas, Ampico all over the place what they’d done was to make the transient permanent, given the fleeting nature of music of great performances of great music a permanence that’s the heart of authenticity, that preserved the whole concept of authenticity [...] You wouldn’t need Grieg you wouldn’t need Gershwin or Paderewski or any of them because you’d have their authenticity and the whole concept of authenticity preserved, the music itself and the fleeting performance brought together forever, given permanence that’s the heart of authenticity [...] (40–41)

The ‘authenticity’ motif most succinctly summarises the contradiction found in Gaddis’s trouble with the player piano: the mechanisation of the arts destroyed the concept of authenticity, but the recording of the arts preserved it. For Gaddis, authentic art required embodiment.47 Eduard Hanslick similarly considered authenticity as core to the beauty in music, that the performance as a “moment of fulfilment” can move the listener in a way that “the most artistically contrived music box” cannot.48 For Hanslick in 1854, a time long before the player piano or phonograph, the human was necessary for the satisfactory “reproductive act” of musical performance.49

Closely related to the ‘authenticity motif’, the ‘phantom hands’ motif represents the hands of those players who recorded the piano rolls; when played, of course, the keys of the

49 Ibid.
piano move as if they are being pressed by the performer’s ghost. The motif repeats throughout the novella, originally presented as part of a testimony from Debussy and Grieg for the Welte-Mignon rolls—"Many of the artists will never play again, but their phantom hands will live forever’ there that’s what it’s about, no more wooden fingers but phantom hands.” (15)\(^50\)—and arguably not only stands for the preservation of the authentic performance, but also the player piano’s haunting of Gaddis’s life. Gaddis nods to the idea of an instrument haunting someone in his inclusion of the lines, “Galen’s patient haunted by hallucinatory flutists he heard and saw day and night” (25),\(^51\) and “…these great artists will never play again, but their phantom hands will live forever, haunt us forever. Forever!” (86–87), seems to say more about the haunting of the protagonist or Gaddis than the preservation of a musician’s performance.

The use of textual motifs provides a sense of familiarity in the same way that repeated musical motifs provide a hook for the ear in the longer virtuosic piano works of the mid-nineteenth century. Despite the use and development of motifs, we do not necessarily have a strict sense of structure, and we would be shoehorning the work into a musical straitjacket if we were to attempt to ascribe \textit{Agapē Agape} to a particular formal order.\(^52\)

Beyond the use of motifs, further musical content is suggested with the lyrical quality of some of the text as it manufactures a sense of melody:

\(^{50}\) This testimony, and much of the text on 15–16 was taken from Harvey N. Roehl, \textit{Player Piano Treasury: The Scrapbook History of the Mechanical Piano in America} (New York: Vestal Press, 1961) which, according to Moore, Gaddis would have probably used. See Steven Moore’s \textit{Agapē Agape Annotations} project www.williamgaddis.org [accessed 4 March 2024]


\(^{52}\) Zeidler (“Mark the Music”, 226–27) suggests that \textit{Agapē Agape} can be read as classical sonata form. However, their identification of the recapitulation starting on 28 with the restatement of the novella’s opening phrase, feels significantly too early in a book of 96 pages to constitute sonata form. The reprisal of the opening phrase is more likely in the romantic piano tradition of cycling back earlier material.
[...] a Little Lamb, who made thee? Dost thou know who made thee? Gave thee such a tender voice, making all the vales rejoice? Little Lamb, who made thee?
Dost thou know who made thee? Little Lamb, I’ll tell thee, Little Lamb, I’ll tell thee: Doctor Wilmut made thee, Doctor Ian Wilmut cloned thee outside Edinburgh, Scotland, a product of the imitative arts that Plato banished [...] (35)53

Whether knowingly or not, Gaddis’s borrowing of William Blake’s poem ‘The Lamb’ from *Songs of Innocence and of Experience* further alludes to unheard music: it is still to be determined if Blake’s poems had specific accompanying music.54 Further still, repeated phrases such as the lines from a madrigal by the painter Michelangelo, “O Dio, O Dio, O Dio, Chi m’a tolto a me stesso Ch’a me fusse più presso O più di me potessi, che poss’ io?” (94),55 and the English translation, rather directly evoke a sense of music in the text.

Musicality permeates the text to the very end, with the closing lines of *Agapē Agape* turning to take one final look at the protagonist’s past. Capitalised words provide final impassioned chords of “Youth”, “Age”, and “Youth” again:

That was Youth with its reckless exuberance when all things were possible pursued by Age where we are now, looking back at what we destroyed, what we tore away from that self who could do more, and its work that’s become my enemy because that’s what I can tell you about, that Youth who could do anything. (96)

53 This is in reference to Dolly the sheep, the first cloned mammal created at the Roslin Institute, The University of Edinburgh, which sits just south of the city. This portion borrows William Blake’s *The Lamb*: a Christian poem which, when combined with the cloning of Dolly by Gaddis, creates a tension between faith and science in some quarters.


55 Steven Moore has identified this text as coming from James M. Saslow, *The Poetry of Michelangelo: An Annotated Translation* (New Haven: Yale University Press, 1991). The poem is titled *Come può esser ch’io non sia più mio.*
This section, to me, reads as the final bars of a dramatic work. Large statements, in a book riddled with details, provide a sense of closure to the novella: that all the minutiae spun and reworked is ultimately about the protagonist trying to come to terms with the fading of ‘Youth’, of missed opportunities and regret. These final lines, and these chords of Youth and Age, reach back to the start of the protagonist’s adult life, well beyond the scope of the book to “that Youth who could do anything”.

**The Secret History of *Agapē Agape***

If we accept, as I have suggested here, that *Agapē Agape* textually embodies a player piano and represents Gaddis’s turbulent career-long relationship with the history of the instrument, then *Agapē Agape* might be regarded as a prime example of late style in action. *Agapē Agape* served as a way for Gaddis essentially to make peace with a lifetime of wasted work by exploring the emotional distress of his loss, while treading the line between autobiography and fiction.\(^56\) In the way Gaddis develops the textual motifs through their repetition and manipulation, we can also delve deeper and propose that Gaddis is not just developing random fragments of material, but instead is turning over his own lived moments by replaying, questioning, but never quite resolving them before moving on, creating a tension in this attempt at resolution.

Edward Said wrote of late style that instead of “harmony and resolution”, it may be about “intransigence, difficulty, and unresolved contradiction”.\(^57\) This absence of resolution seems most fitting for *Agapē Agape*, a single-voice novella so short it creates a palpable silence in contrast to Gaddis’s tome-like oeuvre of multiple characters who incessantly interrupt and talk.

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\(^{56}\) Moore argues that certain clues do “just enough to nudge *Agapē Agape* into the category of fiction” separating the author from the protagonist. See Moore, *William Gaddis*, 203.

\(^{57}\) Said, *Late Style*, 7
over one another—and a body of work often inflected with humour and socio-political commentary. The stark contrast created through its relative brevity, seriousness, and absence of competing noise forces us to listen to Gaddis, perhaps for the first time: if Gaddis felt that we were not listening to him about his passion for the player piano, now we are made to pay attention. *Agapē Agape* cuts through the characteristically ‘Gaddisian’ chaos of his earlier works. But the novella’s embodiment of the player piano, with a piano roll of repeating and developing motifs, paints it as an *authentic* work, a ‘moment of fulfilment’, granting it artistic merit. Resolution here, then, is a work divorced from the dreams of the “angry and disturbed artist”, and instead is rendered in the “work that’s become my enemy” (96).

It is this tacit focus on the player piano, exposed through a late style reading, that allows me to delve further and propose, somewhat controversially, that we may apply the theory of late style to the piano itself. Late style is more typically applied to temporal, linear subjects (literature, music) rather than objects, but here I think it is the most fitting way to provide a new cultural reading of the player piano: *Agapē Agape* causes us to look back and critique the player piano as an example of *organological late style*. The piano was invented around 1700 in Italy by Bartolomeo Cristofori but did not gain traction until much later in the century. In essence, it was a harpsichord with hammers that strike the strings, instead of quills that pluck, creating a rounder sound with the potential for longer decay. The piano then underwent significant development as technologies advanced, equipping the instruments with iron frames to improve stability against the tension of the strings and creating a mechanism which allowed the instrument to be made in an upright format more suitable for smaller spaces such as the home.

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59 We also find the late style critique of art, although this area is also in relative infancy. For example, see the chapters by Jeremy Lewison (on Picasso) and Bente Larsen (on Monet) in McMullan and Smiles, *Discontents.*
By the time of the push-up player’s invention by Votey, the design of the piano had become relatively stable and instead innovators sought ways to augment the instrument, with one eye firmly on commercial potential. Votey’s push-up player was therefore part of this effort to reimagine, by then, a nearly 200-year-old instrument which was present in the households of the middle classes, and was very much part of nineteenth-century commodity culture. The move to then internalise Votey’s piano player invention within the body of the instrument, creating a new version of the piano, is an historical organological moment albeit a brief one: its short existence of c.30 years—a brevity perhaps echoed by Agapē Agape—makes the player piano something rather ephemeral within organological chronology.

The increased automation of the player piano distanced the human from the physicality of music-making, and with it the act of embodiment. The domestic piano was largely associated with the female player, creating a heterosexual relationship between her and the masculine mechanical piano; where previously the gaze of the listener had been focussed on the player (female) and their gestures and nuances of embodiment, it was now on the machine (male). Indeed, as Votey’s push-up player took the position of the performer, it can be read that the later integration of the mechanism resulted in man (the performer) conceptually becoming one with the machine: a cyborgian mash of human creativity and mechanical reproduction, which was perhaps as alienating as it was intriguing. The reproducing player piano with its limited expressive control sits somewhere in the vicinity of this (dis)embodiment of performance: it maintains connection to the human through the prescribed direction of dynamic cues (controlled

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60 Carnevali and Newton, Piano.
by the operator), but ultimately the human is unable to make a full connection with the music through the player piano, thus prohibiting embodiment.63

This lack of embodiment introduced an emotional gulf between the human and the machine, contradicting the notions of accessibility instilled by both the affordability of the player piano (through part exchange and hire purchase schemes), and the enjoyment of music in the home without musical training. The player piano therefore presented as a dichotomy: it increased access to music by removing the very act of active participation in it. This unresolved contradiction is where I see late style most prominently in the physical object. The player piano can be viewed as coming at the end of the piano’s first age, as well as at a critical juncture before the piano was historicised and preserved in audio recordings. These points of tension, of both looking back and to the future, are the two key moments where late style is said to occur. The mechanisation of the player piano stood as a metaphor for the rapid industrialisation of the age, and the removal of man from the process of creative performance moved the humble piano even further into the realm of the machine.64 In doing so, the player piano ceased to be a musical instrument by becoming a reproducing device played by disembodied phantom hands, and thus the authenticity of the performance was lost.

63 In a letter from 1911 entitled ‘The Value of the Piano-Player’, Charles Catty highlights the lack of “artistic value of the pianola,” and that the “nonchalance of the machine…is ever present and confounds the player’s efforts when he seeks to make his own emotion felt.” On embodiment, he writes: “There remains the curious consideration whether quite a large part of our pleasure in music does not rest upon the consciousness of difficulties overcome, upon the sense of our own skill and that of others in performance. We shall lose something of the wonder of fine music finely played when it is mechanically rendered. The intimate connection between the player and the music will be made less intimate. The direct communication of emotion from one human being to each member of his audience is also a large factor in the influence of music. His attitude, his expression, his movements help it. […] And it is quite certain that if the day should come (I don’t think that it will) when electric orchestras without human performers or conductors, recitals upon pianos without keyboards, take the place of instrumental music as we know it, then our pleasure in it and our interest in the performance of it will be lessened tenfold.” See Musical Standard 35:896 (March 1911): 132.

64 Arnold Schoenberg wrote in 1926 that the piano had been mechanized to the point that the player did little more than signal a note to be played, having limited influence on the tone produced. See Patteson, New Music, 27–28.
Stop Player

The player piano’s history is one of commercialisation and mass culture. This complex instrument is a rich site for exploration of themes across multiple fields of thought and is a useful lens through which to critique the arts of the early twentieth century. Here, I have presented a new reading of the instrument as a means to encourage further analysis of this overlooked corner of musical and organological history, and particularly to draw on theories that typically reside in adjacent fields. Examination of Agapē Agape thus provides a new late style approach to the work of Gaddis, but also permits the re-reading of the player piano itself as a late style creation within organological history, particularly of the piano. This work now welcomes further theoretical study of organological developments to meaningfully connecting physical objects with sociocultural histories.