emphasizes the independent identity of constituent voices, a different textural concern preoccupied the modern composers. Even before the publication of Einstein's *Special Theory of Relativity* in 1905, new concepts of time within musical texture, specifically synchronicity, intrigued both Claude Debussy and Maurice Ravel. Although these temporal ideas were new to the two French composers, the aspects of Indonesian heterophony they experienced, via the gamelan ensembles' performances at the Paris expositions of 1889 and 1900, were part of an ancient musical form.[61]

In non-Western music, heterophony presents a simultaneous layering of several improvisations on the same musical idea.[62] It is a texture found especially in folk music. In the gamelan orchestra of Indonesia, the timbre of many xylophone-like idiophones suggests bells. It is interesting to note that, in 1903 and 1904 respectively, both Debussy and Ravel wrote piano compositions featuring the sounds of bells within a heterophonic texture.[63]

For example, in "Pagodes" of *Estampes*, the innovative piano writing suggests the sonic atmosphere of an Oriental temple. Through the use of pentatonic scales and special pedaling indications, Debussy conveys the

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[61]Ibid., 222.

[62]Donald J. Grout and Claude Palisca, *A History of Western Music* (New York: W.W. Norton & Company, 1988), 795.

[63]James Friskin and Irwin Freundlich, *Music for the Piano* (New York: Dover Publications, Inc., 1973), 202, 235.

idea of bells tolling. The work features layers of sound, much of it *pianissimo*, exploiting all registers of the keyboard.[64]

In the piano composition "La Vallee des cloches" ("The Valley of the Bells") from *Miroirs,* Ravel uses the characteristics of bells as psychological and aural symbols closely connected with church rituals. In this evocative work, the bell-like tones are played in layers, in different registers of the piano. Ravel uses three staves to notate this effect. Within the three staves are five layers of ostinati of unchanging pitch and register. Ravel achieves a unique effect, though, by introducing new rhythmic patterns, usually by displacement of old ones.[65]

In a similar way, Stravinsky uses rhythmic displacement and the sounds of bells to achieve a powerful, symbolic conclusion to the wedding rites in the work, *Les Noces.*[66] Contrasted with the French approach however, bells in Russian art music have not only religious symbolism, but also refer to coronations (Mussorgsky's *Boris Godunov*) and wars (Tchaikovsky's *1812 Overture*). The more powerful, even portentous, connotation of bells in Russian tradition is significant.[67]

As Stravinsky explained later, his conception of *Les Noces* was not as a

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[64]Ibid.

[65]Watkins, 226.

[66]Richard L. Crocker, *A History of Musical Style* (New York: Dover Publications, 1986), 489.

[67]*Encyclopaedia Britannica,* 10th ed., s.v. "bells, Russian."

literal representation of a peasant wedding. Instead, through *Les Noces,* Stravinsky desired to express, in a dramatic and modern musical form, his perception of the Russian psyche with its irrational devotion to ancient Eastern rituals and customs.[68]

While Stravinsky generally did not credit any non-Russian composers with having a strong influence upon his own works, he did make an exception in the case of French music. As he wrote later in his biography *Chronicle of My Life,* the French composers represented "a different type of musical writing, different harmonic methods, different melodic conception, (and) a fresher and freer feeling for form."[69]

Stravinsky appreciated, too, the attraction Eastern heterophony held for French composers Debussy and Ravel. While he did not place himself squarely in the "nationalist school" of romantic Russian composers, Stravinsky naturally chafed against the perceived superiority of the German, or Western, musical tradition.[70]

Even though he once referred to Ravel as a "Swiss clockmaker,"[71] Stravinsky did admire the relatively detached and objective compositional style of the French composer. Eventually Stravinsky followed this neoclassical approach himself, to great effect. While Ravel

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[68]Boucourechliev, 109-110.

[69]Ibid., 32.

[70]Richard Taruskin, *Stravinsky and the Russian Tradition: A Biography of the Works Through Mavra - Volume I* (Berkeley: University of California Press, 1996), 137.

[71]Boucourechliev, 109-110.

and Stravinsky respected each other enough to collaborate on the melodrama *Persephone* (1934), it was another modern French composer who influenced Stravinsky more. In *Conversations with Igor Stravinsky,* author Robert Craft asks the composer, "Of your early contemporaries, to whom do you owe the most?" Stravinsky answers, "...the musicians of my generation and I myself owe the most to Debussy."[72]

When he was twenty years old, Stravinsky first heard some of Debussy's music at one of the "Evenings of Contemporary Music," held in St. Petersburg to introduce the Russian public to new composers. Stravinsky was particularly impressed by the unique, modern sound of Debussy's music.[73] Later, he and the French composer became friends, and as Stravinsky recalled, "...I was deeply touched by the sympathy that he showed both for me and for my music."[74]

In 1912 Stravinsky dedicated his apocalyptic sacred work *Zvezdoliki* ("The King of the Stars") to Debussy. Significant within this work for orchestra and voices are the allusions to Debussian style. One obvious example is the use of harmony as resonance, when the horns echo as from a distance and reinforce a mood of mystic reflection.[75]

For all of their mutual admiration, the two composers were not in complete agreement on every musical issue. Stravinsky's characteristic

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[72]Igor Stravinsky and Robert Craft, *Conversations with Igor Stravinsky* (Garden City, New York: Doubleday & Company, Inc., 1959), 50.

[73]Boucourechliev, 34.

[74]Ibid., 53.

[75]Paul Griffiths, *Stravinsky* (New York: Schirmer Books, 1992), 33.

treatment of time did not include the "fluid" rhythmic framework so often found in Debussy's works. The Russian composer favored instead a constant, clear "pulsation" that regularly phased in and out of the basic meter.[76] Also, Debussy's reported comment made at the Paris premiere of *Le Sacre du Printemps,* "It is terrifying. I don't understand it!"[77] indicates that his own expression of modernity did not include the innovative sounds and rhythms so aggressively—and brilliantly—employed by the younger Stravinsky. Still, the two composers not only admired each other's music, but also shared a strong, personal affinity.[78]

The Eastern heterophony that so captured Debussy and Ravel at the turn-of-the-century Paris expositions found natural expression in Stravinsky's work *Les Noces.* The composer Alexandre Tansman, a contemporary of Stravinsky's, felt there was a direct connection between the "sonorous murmuring that permeates and envelops *Les Noces*" and the characteristic style of Javanese and Balinese music.[79]

As Tansman relates, "Only in the Dutch East Indies, particularly at Bali, have I heard a sound of like purity, arising from the qualities of a keyed instrument at once percussive and resonant (wood xylophone) and the pedal element of the bell (gongs and steel bars)."[80]

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[76]Boucourechliev, 53.

[77]Ibid., 12.

[78]Ibid., 54.

[79]Alexandre Tansman, *Igor Stravinsky: The Man and His Music,* trans. Therese and Charles Bleefield (New York: G.P. Putnam's Sons, 1949), 188.

[80]Ibid.

From the opening bars of *Les Noces,* one is certainly struck by the exotic quality of the music. Tansman speculates that Stravinsky, like Ravel and Debussy, heard and was influenced by Indonesian music. Instead, it seems probable that Stravinsky was only influenced by his own understanding of the Eastern legacy of Russian folk music. For, as he wrote later, "...I wonder if *Les Noces* can ever completely reveal itself to a non-Russian."[81]

As often as Stravinsky spoke about the "Russianness" of his early works, he also emphasized the experimental nature of many of these compositions. He was fascinated by mechanization and, in some of his music, attempted to convey the relentless continuity of a powerful engine's running motor. He achieved this unique effect through the use of additive rhythms, conceived horizontally with constantly varying meters. As the metrical unit remains strict (overriding changes of meter), the unchanging basic pulse gives the music a consistent, machine-like energy.[82] The changing meters, however, prevent the music from sounding predictable or familiar.

In Stravinsky's revealing book, *Poetics of Music,* he refers to this type of musical time as "ontological". He goes on to define this as "real time" or "the essence of time, perceived on both conscious and unconscious" levels.[83] The composer felt that the music which was based upon

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[81]Igor Stravinsky, *Expositions and Developments* (Berkeley: University of California Press, 1962), 116.

[82]Francis Routh, *Stravinsky* (London: J.M. Dent & Sons Ltd., 1975), 80.

[83]Igor Stravinsky, *Poetics of Music* (New York: Random House, 1947), 31-32.

ontological time was "generally dominated by the principle of similarity."[84]

Of most significance is Stravinsky's belief that "music which evolves parallel to the process of ontological time, embracing and penetrating it, induc(es) in the mind of the listener a feeling of euphoria...of 'dynamic calm.'"[85]

For Stravinsky, dynamic calm represented *artistic* reality, as contrasted to mundane reality, which is limited to a perception of chronological time only. He was convinced that "only similarity satisfies us in the long run."[86] As he explained, "The music that adheres to psychological (or chronological) time likes to proceed by contrast...When variety tempts me, I am uneasy about the facile solutions it offers me. Similarity, on the other hand, poses more difficult problems, but also offers results that are more solid and hence more valuable to me."[87]

At least one musical result that was valuable to Stravinsky was the achievement of "dynamic calm" within his music. Although some musical philosophers have considered this oxymoron to be completely meaningless, and his attachment to it self-indulgent,[88] many others respect his sincerity in trying to articulate this creative goal.

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[84]Ibid., 33.

[85]Ibid., 32.

[86]Ibid., 33.

[87]Ibid., 34.

[88]Theodor W. Adorno, *Philosophy of Modern Music*, trans. Anne G. Mitchell and Wesley V. Blomster (New York: The Seabury Press,1973), 178-179.

Stravinsky's preoccupation with ontological time and dynamic calm began very early in the twentieth century. This marks the point where he turned completely from representational art.[89] By "manipulating time" he sought to depersonalize his music and achieve, through his compositional technique, "pure" sound. His was a total reaction against the late-romantic musical emotionalism and subjective expression. He absolutely rejected the concept of morality inherent in art. Through his meticulous neo-classical approach he believed he created a new artistic reality: music that was amoral.

As he said years later, "...we have a duty towards music, namely to invent it."[90]

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[89]Robert Siohan, *Stravinsky,* trans. Eric Walter White (New York: Grossman Publishers, 1970), 62.

[90]Ibid., 63.