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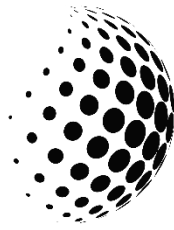
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**GLOBAL TRENDS  
IN THE DEVELOPMENT  
OF INFORMATION  
TECHNOLOGY  
AND SCIENCE**

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об'єднуються в єдину інтерактивну систему. У цьому контексті імерсивні технології демонструють перехід від об'єктно-орієнтованого підходу до середовищного діджитал дизайну, де ключову роль відіграє досвід взаємодії людини з простором.

#### Висновок

Інноваційні об'єкти діджитал дизайну суттєво змінюють підходи до формування предметно-інформаційного середовища. Вони трансформують статичний простір у динамічну систему взаємодії, де інформація, технологія та предметна форма існують у нерозривному зв'язку. Застосування AR, AI та імерсивних технологій сприяє формуванню адаптивного, інтуїтивного та людиноорієнтованого середовища, що відповідає вимогам сучасного суспільства. Подальше дослідження цих об'єктів є перспективним напрямом розвитку теорії та практики діджитал дизайну.

#### Список використаних джерел

1. Manovich L. The Language of New Media. MIT Press, 2001.
2. Norman D. The Design of Everyday Things. Basic Books, 2013.
3. Pallasmaa J. The Eyes of the Skin: Architecture and the Senses. Wiley, 2012.
4. Rogers Y., Sharp H., Preece J. Interaction Design: Beyond Human-Computer Interaction. Wiley, 2015.
5. Azuma R. A Survey of Augmented Reality. Presence, MIT Press, 1997.
6. McCormack J., d'Inverno M. Computers and Creativity. Springer, 2012.
7. Weiser M. The Computer for the 21st Century. Scientific American, 1991.
8. Grau O. Virtual Art: From Illusion to Immersion. MIT Press, 2003.

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## LISTENING AS A PRINCIPLE OF FORM-BUILDING IN KEITH JARRETT'S SOLO IMPROVISATIONS

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Improvisation represents one of the most sophisticated forms of musical creativity because it integrates composition, performance, and perception into a single temporal process. Unlike composed music, where formal organization precedes performance, improvisation unfolds in real time, allowing musical form to emerge simultaneously with its execution. Within this context, artistic success depends not only on technical mastery or harmonic fluency but also on the performer's ability to engage continuously with the evolving musical process. Consequently, listening should be understood not

merely as a mechanism of performance control but as one of the fundamental principles of improvisational thinking.

Contemporary musicological research increasingly approaches listening as an active cognitive process rather than a passive mode of auditory perception. From a phenomenological perspective, musical experience develops through the dynamic interaction of memory, immediate perception, and anticipation. Every musical event retains traces of what has already been heard while simultaneously projecting expectations about what may follow. Therefore, listening becomes the medium through which musical continuity is established, allowing performers and listeners alike to perceive individual musical events as components of a coherent temporal whole.

These processes become particularly significant in jazz improvisation, where no fully predetermined musical text exists prior to performance. Every melodic gesture, harmonic progression, rhythmic pattern, or textural transformation acquires meaning only through its relationship with previously performed material. The improviser is therefore required to perform several cognitive operations simultaneously: responding to the sounding present, retaining previous musical events in memory, and anticipating possible directions for future development. Listening functions as the mechanism that connects these temporal dimensions, transforming spontaneous musical decisions into an organically unfolding artistic discourse.

Among contemporary jazz musicians, Keith Jarrett offers one of the most compelling examples of this creative approach. His solo concerts reveal a distinctive model of improvisational thinking in which musical form is not constructed according to a preconceived compositional design but gradually emerges through continuous interaction with the sounding musical material. Jarrett's creative process demonstrates an exceptional degree of reciprocal exchange between performance and listening. Rather than executing predetermined musical ideas, he continually evaluates each newly produced musical event, allowing it to influence subsequent artistic decisions.

This principle distinguishes Jarrett's improvisational practice from conventional notions of spontaneous performance. His artistic freedom does not result from the absence of structural organization but from an extraordinarily refined capacity to perceive relationships within the evolving musical texture. Such freedom presupposes complete command of harmonic language, rhythmic flexibility, pianistic technique, and an exceptionally developed inner ear. Because these technical foundations have become fully internalized, conscious attention shifts away from the mechanical production of musical material toward its ongoing aesthetic evaluation. Thus, listening becomes an active creative force rather than a secondary monitoring process.

Within this framework, every newly performed phrase functions simultaneously as both conclusion and beginning. Rather than treating musical ideas as isolated events, Jarrett allows each gesture to generate the conditions for the next stage of development. Musical coherence therefore emerges not from adherence to an external formal scheme but from continuous responsiveness to the internal logic of the improvisation itself. This explains why even his most spontaneous performances often convey an impression of remarkable architectural unity despite the absence of precomposed material.

These characteristics become immediately apparent in the opening section of *The Köln Concert*. Instead of presenting a clearly defined thematic statement, Jarrett begins with isolated harmonic sonorities, fragmented melodic gestures, irregular rhythmic impulses, and carefully placed silences. At first, these musical events appear almost exploratory, as though the performer were discovering the expressive possibilities of the instrument rather than presenting a finished musical idea. However, this apparent uncertainty serves an important artistic purpose: it invites both performer and listener into a shared process of musical discovery.

Rather than directing attention toward thematic recognition, the opening encourages an intensified awareness of musical becoming. Each harmonic gesture acquires significance only through its relationship with those that precede and follow it. Listening therefore ceases to function merely as perception of completed musical structures and instead becomes the principal mechanism through which form gradually materializes. Musical meaning is not presented to the listener as a finished object but unfolds progressively through the evolving interaction of sound, silence, memory, and expectation.

From this perspective, improvisation may be understood as a continuous dialogue between performance and listening. Every musical decision is simultaneously conditioned by previous auditory experience and responsible for shaping future possibilities. Jarrett's artistic practice demonstrates that listening is not simply an accompanying aspect of improvisation but its primary generative principle. It is through this ongoing dialogue with sounding music that formal coherence, expressive continuity, and structural unity emerge without reliance upon predetermined compositional models.

An equally significant dimension of Jarrett's improvisational practice concerns the relationship between listening and musical temporality. In composed music, temporal organization is generally established before performance through predetermined formal design. Improvisation, by contrast, generates its own temporal structure during performance itself. Musical time is therefore experienced not as an external framework within which musical events occur, but as a continuously evolving phenomenon shaped by the performer's ongoing interaction with the sounding musical process.

Within this perspective, silence acquires a fundamentally different aesthetic function. Rather than representing the absence of musical activity, silence becomes an active component of musical thought. It creates a temporal space in which previously performed material continues to resonate within auditory memory while simultaneously allowing new musical possibilities to emerge. Therefore, listening extends beyond the perception of sounding events to encompass moments in which musical meaning develops without the immediate presence of sound.

This understanding of silence closely corresponds with phenomenological conceptions of temporal consciousness. Musical experience unfolds through the continuous interaction of retention, immediate perception, and protention - that is, the preservation of what has already been heard, the awareness of the present sonic event, and the anticipation of what is about to occur. Within such a framework, silence functions not as interruption but as an essential condition for musical continuity. It

allows both performer and listener to reassess the developing musical narrative before its subsequent transformation.

These principles become particularly evident in the opening minutes of *The Köln Concert*. The irregular alternation of isolated chords, fragmented melodic ideas, and carefully measured pauses creates an atmosphere of exploration rather than declaration. Instead of introducing a clearly articulated musical theme, Jarrett gradually establishes an environment in which formal relationships evolve through attentive listening. Every silence acquires structural significance because it preserves the expressive tension generated by preceding musical events while simultaneously preparing the emergence of new material.

An important characteristic of Jarrett's improvisational language lies in his reluctance to introduce abrupt discontinuities. Rather than replacing one musical idea with another through contrast alone, he typically allows musical gestures to evolve organically from preceding material. Harmonic progressions expand gradually, rhythmic figures undergo subtle transformation, and melodic fragments acquire new expressive functions through continuous variation. Such developmental continuity is perceived primarily through listening, which enables both performer and audience to recognize relationships that extend across considerable temporal distances.

This process may also be observed in *Wind from the Paris Concert*. At the outset, the musical material appears fragmentary and episodic, offering few indications of an emerging large-scale formal design. However, repeated rhythmic figures, evolving textural layers, and subtle harmonic modifications gradually establish an increasingly coherent musical environment. Here, listening performs an integrative role by transforming seemingly independent musical gestures into components of a unified artistic discourse. Formal coherence emerges not through predetermined architecture but through the listener's capacity to perceive continuity within constant transformation.

Particularly noteworthy is Jarrett's use of ostinato structures. Repetitive rhythmic and harmonic patterns provide temporary points of stability from which improvisational development can unfold. Yet the artistic significance of ostinato extends beyond its structural function. Its regularity redirects attention away from the repetition itself toward the subtle transformations occurring above and around it. Variations in texture, register, dynamics, articulation, and harmonic color become increasingly perceptible because the listener's cognitive resources are no longer occupied with establishing basic structural orientation. Thus, listening shifts from recognizing musical events to perceiving processes of musical transformation.

From this perspective, improvisation may be understood as an emergent phenomenon whose coherence depends less upon predetermined compositional strategies than upon continuous auditory reflection. Musical form does not exist prior to performance; rather, it arises through an ongoing negotiation between memory, perception, anticipation, and artistic decision-making. Therefore, listening functions simultaneously as a cognitive, aesthetic, and structural principle that shapes every stage of the improvisational process.

Jarrett himself has repeatedly emphasized that authentic improvisation requires abandoning complete conscious control in favor of profound trust in one's musical

intuition. Such statements should not be interpreted as a rejection of discipline or technical preparation. On the contrary, they presuppose an exceptionally high level of artistic mastery. Only when technical procedures become fully internalized can listening assume its role as the principal source of creative decision-making. The performer is then able to respond directly to the evolving musical situation rather than merely executing previously conceived ideas.

Consequently, Jarrett's artistic practice challenges conventional distinctions between composition and performance. His solo improvisations demonstrate that musical form may emerge through continuous acts of listening rather than through the realization of a pre-existing compositional blueprint. The creative process becomes an ongoing dialogue in which every performed gesture simultaneously reflects previous musical experience and generates new expressive possibilities. Listening thus constitutes not an auxiliary aspect of improvisation but the very condition through which musical thought acquires formal coherence and artistic meaning.

The present study demonstrates that listening occupies a fundamentally generative role within Keith Jarrett's solo improvisational practice. Rather than functioning solely as a mechanism of performance monitoring or auditory verification, listening serves as the primary principle through which musical ideas are selected, developed, and integrated into a coherent formal process. Improvisational thinking, therefore, should be understood as a continuous interaction between perception, reflection, and creative decision-making, where every newly performed musical event simultaneously responds to previous material and shapes future possibilities.

The analysis has shown that the structural coherence of Jarrett's improvisations does not arise from adherence to predetermined compositional models but from an ongoing dialogue between performance and listening. Silence, ostinato, gradual textural transformation, and flexible temporal organization function not as isolated expressive devices but as interconnected elements within a dynamic process of musical emergence. Their artistic significance becomes fully comprehensible only when listening is recognized as an active cognitive and creative force rather than a passive mode of perception.

From a broader musicological perspective, this approach contributes to contemporary discussions concerning the nature of improvisational thinking by emphasizing its phenomenological dimension. Jarrett's artistic practice illustrates that musical form may emerge through continuous auditory engagement with the evolving musical process rather than through the realization of a pre-established compositional blueprint. Consequently, improvisation can be interpreted not merely as spontaneous performance but as a distinctive mode of musical thought in which listening becomes the central mechanism of formal organization and artistic meaning.

The findings of this study also suggest broader perspectives for future research. Investigating listening as a generative principle may provide new insights into the cognitive foundations of jazz improvisation, the phenomenology of musical creativity, and the relationship between perception and form-building in real-time musical performance. Such an approach has the potential to enrich both contemporary jazz studies and the wider field of musicological research concerned with creative processes and musical cognition.

### References

1. Bailey D. *Improvisation: Its Nature and Practice in Music*. London : Da Capo Press, 1993. 89 p.
2. Berliner P. *Thinking in Jazz: The Infinite Art of Improvisation*. Chicago : University of Chicago Press, 1994. 904 p.
3. Crook H. *How to Improvise: An Approach to Practicing Improvisation*. Rottenburg : Advance Music, 1991. 186 p.
4. Harkavenko D. *Modal-Harmonic Principles of Jazz Theory and Their Influence on the Formation of the Performer's Creative Freedom. // Actual issues of the humanities. – 2026. – Volume 1 (95). Pp. 141–146.*
5. Monson I. *Saying Something: Jazz Improvisation and Interaction*. Chicago : University of Chicago Press, 1996. 261 p.

## **THE SEARCH FOR THE TRUE EXISTENCE OF AN ACTOR IN THE VIVID FORM OF COMMEDIA DELL' ARTE «THE SERVANT OF TWO MASTER» IN THE MUSICAL COLOURING OF BARVINSKY'S «CELLO VARIATIONS»**

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**ABSTRACT.** Our practical explorations with students of the Karpenko-Karyi Kyiv National University of Theater, Cinema and Television will become methodological solutions for the embodiment of a bright, even farcical form, combined with the scrupulous inner truth of the heroes of Goldoni's play «The Servant of Two Masters.» This will help to reveal the idea of the work and fully reveal the director's intention. «Cello Variations» by Ukrainian composer Vasyl Barvinsky will create a humorous, ironic atmosphere on stage.

**KEYWORDS.** The humorous nature of the music, the inner truth, the student actor, the director's idea.