

MUSORGSKIJ'S SENSORY JOURNEY: PICTURES AT AN EXHIBITION AS A KINAESTHETIC MUSICAL EKPHRASIS

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Abstract

This study investigates Modest Musorgskij's Pictures at an Exhibition as a paradigm of musical ekphrasis, focusing on how the work evokes sensory and bodily experiences beyond mere visual representation. Unlike visual arts, music suggests imagery without explicitly denoting it, allowing listeners to engage with art through an embodied, rather than solely auditory, perception.

By extending Gibson's concept of affordance to the musical domain, it is explored how sound offers "action possibilities" that transcend passive contemplation, activating sensory-motor dynamics in the listener. This interaction involves kinaesthetic imagery, which enables a physical experience of music even without overt physical action. Neuroscientific studies support this view, documenting the activation of motor and premotor areas of the brain during musical listening.

The analysis of the pictures reveals how Musorgskij, through percussive textures, articulated dynamics, and complex rhythmic patterns, transforms the exhibition visitor into a physical and empathetic participant, inducing a corporeal and cognitive journey. Musorgskij's work is a process of sensory-motor mediation in which music embodies and transmits complex perceptive and emotional experiences.

Keywords

Musorgskij, Musical Ekphrasis, Embodied Cognition, Kinaesthetic imagery

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Introduction

The objective of this study is to delve into the inherently corporeal and multisensory essence of the musical encounter, transcending the conventional passive notion of auditory reception to adopt an approach that is firmly embedded in Gibson's notion of affordance. Music, it can be argued, functions not only as an aesthetic object, but also as a medium that activates profound and embodied responses in the listener. These responses involve the listener's motor memory, emotions, and imagination. Empirical evidence from research in the domain of embodied music cognition has demonstrated that the structural components of musical language, including rhythm, dynamics, and melody, induce motor activations even in the absence of physical movement. This phenomenon is closely associated with kinaesthetic imagery. This perspective is corroborated by numerous empirical studies in the domain of cognitive neuroscience, which underscore the activation of motor and premotor areas of the brain during music listening, even in subjects devoid of specific training. In this context, Modest Musorgskij's *Pictures at an Exhibition* serves as a prime example of kinesthetic musical ekphrasis, a work that, through its abundance of physical impulses and the robust gestural characterization of the pieces, guides the listener on a physical and emotional journey.

The ensuing discourse will be organized in the following manner. Section 2 will delve into the notion of musical affordance and kinaesthetic imagery, thereby delineating the theoretical framework of reference. Subsequently, a comprehensive analysis of each painting will be conducted, commencing with the first *Promenade* and culminating in *The Great Gate of Kiev*. This analysis will explore how Musorgskij's distinctive compositional elements elicit bodily and sensory responses in both listeners and performers, thereby transforming observers into physical and empathetic participants (section 3). The role of the performer's body as an instrument of expressive mediation will also be discussed. This phenomenon can be interpreted as a manifestation of a multisensory communication paradigm that transcends mere representation, thereby becoming a process of sensorimotor mediation. In this context, music assumes an active role in engendering an integrated and profound aesthetic experience.

1. Theoretical framework: musical affordances, kinaesthetic imagery, and embodied listening

In the context of music listening, the concept of affordance is crucial to understanding the sound experience as a dynamic and embodied

interaction between the subject and the acoustic environment. The term was originally proposed by Gibson¹²⁰ in the field of ecological psychology. It refers to the possibilities for action offered by an environment in relation to the organism's perceptual-motor skills. When applied to the domain of music, the concept of affordance enables us to transcend a passive conception of listening, thereby reconfiguring it as an active, situated, and corporeal process. In this paradigm, sound is perceived as an invitation to respond through potential patterns of action. Music thus becomes not only an aesthetic entity to be contemplated, but also a medium through which the listener activates sensory and motor dynamics. The listener projects tensions, gestures, and bodily trajectories into the sound flow¹²¹.

It is not merely a matter of organized sound; rather, it is a complex sensory phenomenon that stimulates the creation of bridges between different modes of perception, mediated by imagery. This phenomenon is capable of compensating for missing or integrated information¹²². In particular, kinaesthetic imagery¹²³ facilitates the embodiment of auditory phenomena, thereby allowing for the experience of sound as bodily movement, independent of physical action. Kinaesthetic imagery is not merely a replication of learned movements: rather, it is a dynamic and intrinsic perception that underlies the embodied meaning of music, thereby facilitating emotional and visceral responses¹²⁴.

Research in the domain of embodied music cognition has demonstrated that the structural components of musical language, including rhythm, dynamics, melodic progression, and timbral articulation, generate affordances that elicit motor activation, even in the

¹²⁰ James J. Gibson, *The Ecological Approach to Visual Perception: Classic Edition* (Hove: Psychology Press, 2014).

¹²¹ David Menin and Andrea Schiavio, "Rethinking Musical Affordances," *AVANT* 3, no. 2 (2012): 202–215; Joel Krueger, "Doing Things with Music," *Phenomenology and the Cognitive Sciences* 10, no. 1 (2011): 1–22; Rolf Inge Godøy, *Musical Gestures: Sound, Movement, and Meaning* (New York: Routledge, 2010).

¹²² Bence Nanay, "Multimodal Mental Imagery," *Cortex* 105 (August 2018): 125–134, <https://doi.org/10.1016/j.cortex.2017.07.006>.

¹²³ Jin Hyun Kim, "Kinaesthetic Musical Imagery Underlying Music Cognition," in *Music and Mental Imagery*, ed. by Rolf Godøy and Alexander Refsum Jensenius (New York: Routledge, 2022), 54–63.

¹²⁴ Daniel Müllensiefen, Bruno Gingras, Jason Musil, and Lauren Stewart, "The Musicality of Non-Musicians: An Index for Assessing Musical Sophistication in the General Population," *PLoS ONE* 9, no. 2 (2014): e89642, <https://doi.org/10.1371/journal.pone.0089642>.

absence of physical movement¹²⁵. This process can be observed in automatic responses such as foot tapping, body swaying, or the tendency to imagine performative gestures consistent with musical development. Such reactions cannot be considered epiphenomena; rather, they constitute concrete manifestations of the listener's embodied participation.

When an audience member experiences this profound level of engagement with a musical composition, allowing the music to resonate deeply within them, it is referred to as empathic listening¹²⁶. This concept encompasses motor empathy, a term coined by Reybrouck¹²⁷ to describe the sensation of being profoundly affected by music, often in response to specific, emotionally significant passages within a composition. This concept is distinct from pure imagination: during particularly engaging listening, it is possible that by closing one's eyes or daydreaming, one may imagine oneself elsewhere, visualizing images in a nearly dreamlike dimension. However, the concept of extension that is the focus of this investigation does not concern this mode. Instead, it concerns purely motor sensations that lack a visual or imaginatively rich counterpart. When engaging in musical extensions, individuals do not visualize themselves in other locations or dream of performing tasks differently from their current activities. Instead, they simply modify their perception of the moment.

This perspective is corroborated by the findings of cognitive neuroscience, which have documented the activation of the motor and premotor areas of the brain during music listening. Research in the domain of functional imaging (fMRI) and transcranial magnetic stimulation (TMS) has demonstrated that the perception of rhythmic and temporal structures activates brain circuits that overlap with those involved in the planning and execution of actual movement¹²⁸. This phenomenon has also been observed in subjects lacking specialized musical training, suggesting that the tendency to experience kinaesthetic

¹²⁵ Marc Leman, *Embodied Music Cognition and Mediation Technology* (Cambridge, MA: MIT Press, 2007).

¹²⁶ Joel Krueger, "Affordances and the Musically Extended Mind," *Frontiers in Psychology* 5 (2014): 1093.

¹²⁷ Mark Reybrouck, "Musical Sense-Making and the Concept of Affordance: An Ecosemiotic and Experiential Approach," *Biosemiotics* 5, no. 3 (2012): 391–409.

¹²⁸ Robert J. Zatorre, Joyce L. Chen, and Virginia Penhune, "When the Brain Plays Music: Auditory–Motor Interactions in Music Perception and Production," *Nature Reviews Neuroscience* 8, no. 7 (2007): 547–558; Jessica Adrienne Grahn and Matthew Brett, "Rhythm and Beat Perception in Motor Areas of the Brain," *Journal of Cognitive Neuroscience* 19, no. 5 (2007): 893–906.

imagery may represent a universal aspect of musical cognition. The imagination of sound gestures, in particular, involves the activation of implicit bodily representations that allow the listener to move with the music in a virtual way¹²⁹.

Kinaesthetic imagery can therefore be conceptualized as an embodied response to musical affordances, a form of imagined choreography that facilitates navigation of sound space through simulated motor patterns. Consequently, listening evolves into a multisensory and intermodal phenomenon, wherein auditory perception, physical movement, and emotional response are intricately intertwined.

Within this framework, the concept of ekphrasis is fundamental to understanding how music can engage with other art forms. Originally a rhetorical figure, ekphrasis has been defined by James Heffernan¹³⁰ as the verbal representation of a visual representation — essentially, a vivid description of an artwork aimed at conveying its visual and emotional impact through language. This interaction between visual and verbal media highlights the complex semiotic exchange in artistic translation, where language seeks not only to depict but to evoke the sensory experience of viewing art¹³¹. In music, ekphrasis takes a particularly nuanced form: unlike literature, music lacks direct denotative power and cannot represent visual content literally. Instead, it suggests atmospheres, emotions, and narratives, functioning as a form of intersemiotic translation that re-presents an existing artwork through sound¹³².

This distinction between program music and musical ekphrasis is crucial: while program music constructs autonomous imaginative content, musical ekphrasis engages directly with a specific, pre-existing artistic object, attempting to capture its stylistic, formal, or emotive characteristics in sonic form. In this sense, ekphrasis in music is not merely inspired by an artwork but acts as a mediating process that translates and transforms visual experience into embodied sonic narrative. Musorgskij's *Pictures at an Exhibition* exemplifies this approach by musically rendering not only Hartmann's paintings but the embodied aesthetic experience of the exhibition itself, producing a multisensory,

¹²⁹ Jens Haueisen and Thomas R. Knösche, "Involuntary Motor Activity in Pianists Evoked by Music Perception," *Journal of Cognitive Neuroscience* 13, no. 6 (2001): 786–792.

¹³⁰ James A. Heffernan, *Museum of Words: The Poetics of Ekphrasis from Homer to Ashbery* (Chicago: University of Chicago Press, 2004).

¹³¹ Andrea Battistini, "Denotazione, metafora e connotazione tra ekphrasis e mélophrasis," *Musica Docta* 10 (2020): 65–75.

¹³² Siglind Bruhn, "A Concert of Paintings: 'Musical Ekphrasis' in the Twentieth Century," *Poetics Today* 22, no. 3 (2001): 551–605.

kinaesthetic musical ekphrasis that invites the listener into a richly embodied journey through the art¹³³.

2. Attending the exposition: the pictures

In this section, an analysis of Musorgskij's *Pictures at an Exhibition* will be conducted through the medium of kinaesthetic imagery. This approach enables an exploration of the work not solely as an auditory experience, but also as a genuine physical and emotional journey. From this perspective, the listener (and the performer) does not merely decode sounds or perceive musical structures, but rather experiences the gestures, weights, tensions, and postures that the music evokes internally. Musorgskij's piano compositions, while frequently characterized by a lack of refinement and polish that is typical of Western-style virtuosic brilliance, exhibit a richness in physical impulses that demand the engagement of motor memory and kinesthetic awareness of the body. Each picture, in its unique style and distinctive character, offers a particular quality of movement, whether it be the solemn and rhythmic progress of the Promenade, the weary and subdued gait of the oxen in *Bydło*, the nervous leaping of *Limoges*, the destructive and hammering force of *Baba-Yaga*, or the monumental grandiloquence of the *Great Gate of Kiev*. The body is not merely a means of execution; it is also a site of embodied understanding of music. The gesture, whether imagined or enacted, functions as a vehicle of meaning.

This approach enables the conveyance of the sensory and psychological intricacies inherent in each painting, thereby facilitating a multisensory experience. Kinaesthetic imagery facilitates an understanding of Musorgskij's ability to transform exhibition visitors into physical and empathetic participants, capable of experiencing the fatigue, lightness, irony, or solemnity of the auditory experience within themselves. Far from being a rudimentary compilation of descriptive pieces, *Pictures at an Exhibition* evolves into an immersive musical landscape, constructed through the synergy between musical gesture and bodily imagination.

2. 1. Promenade I

The piece commences with the initial Promenade, which is characterized by a pace that mirrors the cadence of leisurely strides, thus establishing an ambiance of tranquil movement. The initial indication “*allegro giusto*,

¹³³ Carl Dahlhaus, *The Idea of Absolute Music* (Chicago: University of Chicago Press, 1991); Peter Dayan, *Music Writing Literature: From Sand via Debussy to Derrida* (London: Routledge, 2017).

nel modo russo, senza allegrezza ma poco sostenuto”¹³⁴ offers insight into the anticipated outcome of the performance and its intended effect on the listener. “Allegro” signifies the necessity of maintaining a consistent tempo during performance, while “giusto” serves as an adjective intended to mitigate the propulsive nature of “Allegro,” thereby ensuring that the performer does not exceed the speed conceived by the composer, thus completely undermining the intended meaning of the piece. The term “nel modo russo” conveys the expectation that the performer should execute all notes in accordance with Russian musical taste, characterized by a vertical sound, resulting in a percussive and less legato execution, in stark contrast to the Western musical tradition, which, in total antithesis, favors a soft and legato sound.

To this end, the composer places dashes in the opening notes to indicate this meaning. The phrase “senza allegria” (without joy) is a further invitation to moderate the speed of the allegro. This phrase can also be understood as a moderator of sound, so that one is not led into the error of believing that “vertical sound” is synonymous with “very loud sound.” Finally, “poco sostenuto” is the final warning aimed at cautioning the performer against the risk of slowing down excessively. This suggests that the composer intended for the promenade to be performed in a strict manner, its solemnity, justified by the grandeur of the exhibition of paintings, must not be accelerated to the point of evoking a sense of joy. When executed with precision, the promenade has the capacity to facilitate the listener's immersion in this multisensory experience, characterized by auditory and rhythmic elements that enable the perception of the act of walking and the ambience of solemnity interwoven with relaxation.

The term “attacca” is also employed by other composers, including Beethoven, at the conclusion of the second movement of the piano sonata op.57 (*Appassionata*). The term's purpose is to signify the continuation of the musical piece without interruption, seamlessly transitioning into the subsequent section. Consequently, the piano performance must continue beyond the final B-flat major chord, as if the word “corona” were present. This is essential to create the desired effect of surprise that the visitor to the exhibition/listener experiences when seeing/hearing the first painting.

¹³⁴ “Allegro giusto, in the Russian manner, without cheerfulness, but slightly sustained”.

2. 2. Gnomus

The initial scene is entitled *Gnomus*, which portrays an ominous creature that abruptly thrusts the viewer into a grotesque and unsettling realm. From the outset, the audience is confronted with a novel physicality and an unparalleled manner of traversing the spatial realm. Gnomus is characterized by its awkward, abrupt, and sudden movements, which are translated into musical expression through the use of contrasting rhythms, frequent pauses and resumptions, and a dynamic that oscillates between extremes, ranging from pianissimo to fortissimo in rapid succession. The resultant movement is characterized by a sense of fragmentation, uncertainty, and unease. The subject portrayed in the original painting, as described by Montagu-Nathan¹³⁵, was a toy nutcracker designed for the artists' club Christmas tree. This inanimate object was transformed by Musorgskij into a living character, capable of moving in the sound space. As Russ¹³⁶ observes, we are not faced with a static image, but rather the visualization of a scene: The character known as Gnomus is brought to life, and proceeds to move, stumble, and breathe heavily.

The gnome's clumsiness and malevolence are conveyed through distinct auditory expressions, such as the accentuated sound of his limping steps, clearly discernible in bars 40-43. Additionally, an undulating and uncertain movement emerges in bars 44-46, further enhancing the musical portrayal. The subject's gait is characterized by intermittent stumbles, exemplified by the instances in bars 8 and 27, articulated through rapid staccatos. In bar 47, an angry gesture (in *ff*) explodes, recurring cyclically throughout the piece, always after a pause that seems to correspond to a moment when Gnomus stops to catch his breath. This is succeeded by slow chromatic descents, which accurately depict the auditory experience of the gnome's movement. A pivotal component in achieving this effect is the resonance pedal, which enables the sounds to resonate without diminishing their intensity, thereby generating a tapestry of dissonant frequencies that evokes a sense of profound discomfort and distress in the listener.

The piece's culmination is marked by a significant degree of technical complexity for the piano. Subsequent to the instruction *poco a poco accelerando*¹³⁷, a rapid succession of ascending and descending

¹³⁵ Montagu Montagu-Nathan, "New Light on Moussorgsky's 'Pictures'," *The Monthly Musical Record* 48, no. 106 (May 1917).

¹³⁶ Michael Russ, "Returning to the Exhibition: Musorgskij's *Pictures* Reconsidered," *Music in Art* 39, no. 1-2 (2014): 215-236

¹³⁷ *gradually accelerating*

chromatic sextuplets commences, necessitating the maintenance of a swift tempo while ensuring the precise execution of every note. The final segment of the piece is characterized by a frenzied rush, as if Gnomus, perceiving that his actions are being observed, endeavors to evade capture with abrupt acceleration, yet he maintains his haphazard, fragmented manner throughout. The use of ascending and descending scales, laden with dissonance, serves to underscore the chaos of the protagonist's escape, culminating in a sense of unresolved unease that pervades the scene.

In *Gnomus*, Musorgskij presents an embodied aesthetic experience, whereby the character is not only perceived through visual and auditory senses, but also through visceral and sensorimotor responses. Moreover, as with the subsequent images, it is not necessary to be familiar with the image of the picture in order to perceive these sensorimotor states; these are perceptible even without awareness of the image portrayed, which only provides the visual counterpart. This does not imply that the knowledge of the pictures is without value; rather, it signifies that the sensorimotor experience can occur in the absence of visual simulation among the involved sensory modalities.

2. 3. Promenade II and Vecchio castello

Following the second Promenade, which is more intimate and collected than the first, Musorgskij's musical journey leads the listener to a suspended, melancholic sound space, where a troubadour sings in front of the ruins of a medieval manor: *Il vecchio castello* (*The old castle*). In this instance, the music functions not merely as a description of an image, but rather as an activator of a physical and sensory experience in the listener, thereby engendering an emotional response through sound.

The experience of sensations such as emptiness, loneliness, and melancholy is not merely a matter of evocation; rather, it is a phenomenon that is inherently embodied and expressed through the physical experience of the individual. The initial chord progression, initiated by the first chord, constitutes a perfect fifth interval between the root and the dominant, excluding the presence of the modal third. This absence generates a sensation of harmonic desolation, characterized by a static, weary interval that persists in a medium-low register, as if suspended in time. This harmonic tension is characterized by its insidious onset, gradually manifesting as a pervasive heaviness within the body. From the silence, a melodic line emerges, characterized by its timidity, fragility, and profound significance. The register in which it is performed immediately suggests a guitar, the instrument traditionally associated

with the troubadour, yet the voice that performs it also possesses the capacity to sing of pain, in a manner reminiscent of historical troubadours. The bass line introduces a G-sharp pedal, which remains constant but does not dominate the sound. This subdued and repeated auditory phenomenon can be conceptualized as a weak, fatigued heartbeat, its vividness accentuated by the ternary figuration of the rhythm. The auditory perception of a decelerating heartbeat, perceived as if with reluctance, is reflected in the listener's body, evoking an immediate and visceral emotional response.

2. 4. Promenade III and Tuileries

A notable distinction emerges in the third movement when compared to the preceding Promenade. This transformation in character is abrupt and occurs exclusively within the final two measures. It is as if Musorgskij were suddenly attracted by another image, thus interrupting not only his perambulation through the exhibition, but also his impression of the previous image.

The emotional corporeality is thus transformed into that of the experience of the subsequent painting, Tuileries, where the tone undergoes a radical change. In this scene, the music serves as a medium for articulating the dynamic actions of a group of children engaged in physical activity within a designated outdoor space. The children, depicted as running and engaged in play, are met with intervention from nannies who, through physical pursuit, offer disciplinary guidance and provide care. However, it must be noted that the piece's effectiveness extends beyond mere sound mimesis. The sounds of children's laughter, the gentle or authoritarian attention of the nannies, the energy of play, and the contrast between freedom and rules, between caprice and order, are all artfully rendered through the dynamics, articulation, and rapidity of the changes in phrase. These elements evoke not only sounds but also gestures, postures, and muscular tension, as if the viewer were running, stumbling, and being reprimanded.

The Tuileries scene swiftly immerses the viewer in a vibrant auditory and kinetic environment, portraying a park alive with the energy of children engaged in playful activities. These children, observed by their nannies, engage in a range of behaviors, including active movement, pursuits, verbal exchanges, and teasing. The nannies' interventions, characterized by a blend of affection and firmness, serve to regulate the children's activities and maintain order within the scene.

The score demands that the performer enter and draw the listener into the children's play through rapid staccatos, alternating between light

timbres and sweeter colors, sudden impulses, and cantabile lines. The carefree energy of children's play is translated into a musical physiology, made up of short, articulated gestures, tensions, and releases that bring every fragment of the writing to life.

The initial section of the composition necessitates a high degree of delicacy and precision from the pianist. From the second bar onwards, the musician must execute staccato passages with the weaker fingers of the hand, a move that can easily result in a sound that is either too loud or too weak, thereby compromising clarity and articulation. Body control is paramount in this context. Through the cultivation of awareness regarding weight distribution, digit position, and micro-articulation, the episode's playful character is preserved.

The detached quatrains symbolize the children's spontaneous discourse and their rapid exchange of ideas, while the legato in pairs per bar (bars 14–22) articulates the nannies' gentle reprimands, calling the children back to order. A meticulous approach to articulation and phrasing is not merely a matter of interpretation; it necessitates a precise organization of one's body. For instance, the execution of credible legato in the presence of repeated notes or technically challenging passages, such as the transition from F to E#, necessitates the implementation of double escapement and techniques such as sliding legato. These techniques transform each passage into a meticulously choreographed series of hand movements, underscoring the complexity and nuance of musical expression. In addition, individuals with small or medium-sized hands must completely rethink the distribution between their right and left hands to execute double stops. This seemingly simple gesture, if performed with tension, can disrupt the fluidity of the piece. The work evokes a shared bodily memory of play, capriccio, and chaotic yet lively movement. Childhood is evoked in every fragment of the piece through embodied actions, albeit in a diffuse manner.

2. 5. Bydło

The childlike, playful lightness of Tuileries is abruptly interrupted by the fourth piece. *Bydło*. The transition is abrupt and palpable, as if the music abruptly immerses the listener, causing a sensation of weight. *Bydło* is a scene replete with multisensory suggestions, a sonic representation that, rather than narrating a story, engenders sensations of weight, slowness, breathlessness, and fatigue.

The scene under consideration depicts a Polish cart pulled by oxen, submerged in mud, advancing with considerable exertion. However, it must be noted that this visual depiction merely serves as the initial point

of departure. From the outset, the auditory experience engenders a physical response in the listener, characterized by a deliberate and methodical progression. The persistent, resonant chords that define the tempo serve as a metaphorical representation of the forces that impede movement, akin to the impact of hooves penetrating the soil. This auditory metaphor demands a high degree of physical mastery from the performer, who must meticulously calibrate their exertion to convey the nuances of inertia and resistance. The effect is one of embodiment: the observer feels pulled along, involved in the effort, as if their own body were being put under strain. Musorgskij's work does not merely present a scene; rather, it engenders a shared experience of profound suffering. In this musical piece, every movement becomes a physical gesture. The responsive chords are akin to muscles tensing, and the sighs in the high notes evoke a gasp that seems to rise in the throat. And when, with no warning, the sound becomes lighter, it appears as if the animals (and human observers) find the strength to raise their heads and look beyond the mud, perhaps in search of a relief that never arrives.

In its specific historical and cultural context, the concept of animal fatigue assumes an additional layer of significance, serving as a metaphor for the human condition, particularly in the context of Russia's subjugation under the autocratic rule of the tsar. This heaviness, once confined to the physical realm, has now expanded to encompass the social, political, and collective dimensions of existence. The concept of slowness evolves into a metaphor for oppression, with the pace of the oxen serving as a symbol of human subjugation, pulled by forces that transcend their own volition.

At the interpretative level, the performance of *Bydło* has given rise to ongoing debates, precisely because its execution entails choices that extend beyond the mere score, encompassing the sensory and bodily dimensions of auditory perception. In Musorgskij's autograph, the beginning is marked *fortissimo*—a choice that conveys an imposing and proximate presence, as if the cart were in front of us. In contrast, many subsequent editions (including Ravel's renowned orchestration) commence the piece *piano*, suggesting a distant cart that gradually approaches and then dissipates. Both versions evoke divergent spatial movements, yet both invariably entail embodied paths. In the first, the subject perceives the weight upon their person; in the second, the subject is overwhelmed by a presence that becomes increasingly proximate, engaging, and all-encompassing.

The tempo, indicated as 2/4 and described as moderate, is also open to interpretation. According to the notation, one might perceive a binary

beat, slow but regular. However, some pianists opt to interpret the piece as if it were in 4/4 time, attributing a slow beat to each eighth note. The inquiry posed is not solely of a metrical nature; rather, it is inherently kinesthetic in essence, addressing the manner in which the human body perceives and experiences time. This phenomenon can be likened to an internal rhythm that manifests through indicators such as accelerated respiration, the exertion of joint tension, and the sensation of weight upon the shoulders.

In the performance of *Bydło*, as in its listening, the body is involved in every bar. The performer is called upon to bow to the gravity of the sound, to make the slowness felt without succumbing to staticity, and to give life to a movement of effort and resistance. Conversely, the listener becomes immersed in this sensory experience, where music transcends the mere auditory perception and becomes a shared bodily act.

2. 6. Promenade IV and Balet nevylyupivshikhsya ptentsov (Ballet of the Unhatched Chicks)

The transition from the fourth Promenade to the fifth scene, the *Balet nevylyupivshikhsya ptentsov*, is characterized by a light and brilliant quality, yet it is not without ambiguity. The high register from which this promenade commences appears to direct the listener toward the lively and frenetic chirping of the subsequent scene. However, the interpretation of the octave sign, which is inconsistently present across the various editions, and Musorgskij's original writing, which has been altered by arbitrary revisions, complicate the interpretation of the passage. Upon the conclusion of the promenade, the piece transitions into the core of the ballet, drawing inspiration from Hartmann's design for the show *Trilbi*. In this segment, the dancers, attired as chicks, execute their movements while remaining confined within the confines of their shells. The auditory experience of the newly emerged avian subjects is characterized by a series of percussive vocalizations, including rapid trills, trills, and sobbing articulations, which are audibly discernible and serve to communicate the subject's physical state and behavior. The performer is tasked with replicating the fragile, humorous, and tender movements of the chicks through concise, agile, yet meticulous gestures, executed in a *pianissimo* that precludes any hesitation.

The persistent low dynamics symbolize a genuine physical challenge: performing rapid, articulated passages while adhering to the limitations of the piano necessitates a nuanced equilibrium between tension and relaxation. The accents, which are articulated almost concurrently with the fundamental note, are not merely embellishments;

rather, they constitute micro-explosions of motor energy. These accents manifest as diminutive pecks or imperceptibly subtle leaps within the auditory fabric, thereby expressing the nascent vitality of the music. In this context, the quality of the gesture assumes paramount importance. Delicacy, far from signifying weakness, embodies a sophisticated command of the minutest muscular movements of the fingers, in conjunction with the meticulous distribution of the arm's weight.

In the musical passages spanning from bars 23 to 30, the sustained trills performed by the right hand of the instrument appear to induce a physical vibration in the air, reminiscent of an avian species' initial attempts to take flight. This auditory-visual metaphor can be likened to the flapping of wings, characterized by an initial hesitation, yet ultimately decisive in nature. Concurrently, the left hand performs a repetitive pattern on the tonic note, akin to a physical anchor that imbues the composition with stability and weight, despite the apparent lightness.

A structural analysis of the piece reveals its resemblance to a minuet, as indicated by the presence of a two-part trio, a repeat sign, and a coda. However, it is the physical movement it implies that truly brings the form to life. The second phrase, characterized by ascending thirds on the upbeat in the right hand and an ascending line in the left, evokes the coordinated momentum of two legs, a continuous oscillation that propels the gesture forward and guides its expressive flow.

In this context, the utilization of the 1C pedal does not primarily serve to sustain the dynamics; rather, it imbues the sound with a sense of softness and opacity, thereby transforming it into a muffled vibration, akin to a sound passing through a shell. The auditory experience, in this context, is analogous to the process of hatching, characterized by its diminutive and meticulously regulated nature. It is not yet fully developed, yet it is replete with latent energy.

2. 7. Samuel Goldenberg and Schmuÿle

In the sixth tableau Musorgskij contrasts two opposing figures: “a rich Jew in a fur hat” and “a poor Jew”. the two bodies are revealed through sound in a melodic exchange that can be considered a dialogue. The musical composition of the affluent Jew, characterized by precise triplets, sustained notes, and deliberate pauses, enforces a stringent and authoritative stance, a steadfast and measured bodily command. The sound is characterized by its harsh, cold, and imposing qualities, featuring a compact hand, a low wrist, and sharp articulation. This sonic presence imposes itself in space, making a unambiguous gesture. In contrast, the portrayal of the poor Jew is characterized by two distinct bodily

incarnations. The initial incarnation is characterized by a tender and subdued demeanor, where the gesture recedes, the sound acquiesces, and a sense of sadness emerges, evoking the oppression and fatigue experienced by the common man under the oppressive regime of the tsar. Conversely, the second incarnation is marked by a more petulant and irritating figure, with a nervous and fractured movement, nearly a spasm, that disrupts the tranquility and imposes itself insistently. This auditory confrontation evolves into a tangible physical interaction, wherein each character is brought to life through the interplay of tension between the two, manifested in their vocalizations and physical expressions. These elements are then transposed into musical form, providing a medium for the articulation of their dynamic relationship. The progressive overlapping of voices contributes to the audience's ability to perceive the intensity of the conflict. This is facilitated by the acceleration of breathing, the growing tension in the torso and hands, and finally the energetic closure of the rich Jew who "has the last word," sealed by a firm and heavy gesture that closes the scene.

2. 8. Promenade V and Limoges. La marché (La grande nouvelle)

The promenade that introduces the *Limoges* picture appears only in the original version, leading some to consider it superfluous. However, it contains subtle variations that justify its inclusion, both physically and mentally extending the sensation of walking. The *Limoges* movement is an explosion of kinetic energy: it depicts a quarrel between women at the marketplace and is built upon a rapid flick of the palm, a *staccato* gesture that demands extreme precision and finely calibrated physical control. This motion must be executed with great speed and minimal force, yet it requires meticulous accuracy. Such precision is achieved through the active engagement of the hand and the passive involvement of the arm and forearm, which together provide the appropriate degree of resistance. If the technique is not properly executed, fatigue sets in quickly, resulting in a loss of sonic brilliance.

The initial stage of mastering the palm-bounce technique involves isolating finger movements, followed by the integration of rhythmic motion at the wrist. This process demands heightened awareness of bodily sensations and continuous adjustment. The effectiveness of this passage depends not only on technical accuracy but also on the performer's ability to facilitate the flow of energy, avoiding excessive muscular tension that could compromise both the sound quality and the vivid, caricatural expressiveness of the scene. As is often the case in

Musorgskij's work, the composer does not limit himself to the mere depiction of a scene; rather, he animates it for both performer and listener.

We are thus thrust into a musical environment that becomes a theatrical stage at the bustling heart of the marketplace—an energetic, exuberant scene that transcends visual representation. Musorgskij enlivens it through a corporeal dialogue of timbres, gestures, and dynamics. Set within a ternary scherzo form (ABA') with introduction and coda, the composer transforms the women's chatter into embodied movement, assigning the performer's hands and wrists the task of evoking high-pitched voices, stylized sudden gestures, silences, and abrupt resumptions. In section A, the articulation is highly detailed: dynamics fluctuate between *mezzo forte* and *fortissimo*, while sixteenth notes alternate between staccato and legato in variable groupings. The resulting rhythms evoke the stammering, accusations, whispers, and laughter of the women.

Section B, tonally unstable between E \flat and D major, heightens the sense of confusion through shifting chromatic modules, as the hands pursue each other in overlapping exchanges that recall a theatrical quarrel. The climax arrives in unison and *fortissimo*, a muscular sonic block that marks the argumentative peak.

The return of the A' section concludes with a suspended dominant chord, repeated an uncertain gesture, as if someone has suddenly stopped speaking. Without pause, the coda begins: less animated but still capricious, with increasingly shorter note values and a hammered texture, as if the women were hurriedly closing their stalls and shouting while fleeing the marketplace.

The listener, enveloped in this sonic instability, perceives the rush of adrenaline, the accelerated heartbeat, the frantic motion.

2. 9. Catcombae (sepulcrum romanum) - cum mortuis in lingua mortua

Following the corporeal and pulsating frenzy of *Limoges*, the entry into *Catacombae – cum mortuis in lingua mortua* marks an abrupt sensory and motor rupture: the body is arrested, stiffened, as if seized by a sudden gust of icy wind.

The musical contrast is both perceptual and physical: we move from the vibrant chatter of the marketplace to a spectral landscape, where the piano's raw percussiveness immediately ushers us into a world of stone, silence, and death. The static chords, laden with fermatas and heavy silences, strike the listener's body like blows, each sound a weighted drop, each chord a footstep echoing through a damp, ancient void. The

percussive quality evokes the sound of displaced stones, disturbed tombs, and distant echoes and each pause is a suspended breath. The second part introduces a profound internal shift: the atmosphere becomes more intimate, rarefied, and physically unsettling. Tension transfers to the right hand, which must produce a faint, tightly controlled *tremolo*, almost imperceptible, yet pulsing like a hidden heartbeat. The thumb-fifth finger alternation becomes an exercise in fine motor control, in micro-movement, where every involved muscle is reduced to the bare minimum required to sustain the vibration. This tremolo is a subtle presence, akin to the dim glow of the lantern that, in the symbolic narrative of Hartmann's painting, he carries with him through the darkness of death. Meanwhile, the left hand advances cautiously, with symmetrical, measured notes that evoke slow and uncertain footsteps—bodily gestures of restraint, as one might adopt when entering a sacred or unfamiliar space.

At this point, the *Promenade* theme re-emerges, but it is stripped of its usual rhythmic framework, suspended in a dilated, timeless atmosphere. It now evokes an inner journey rather than a physical one. The entire body of the performer must follow this transformation, wherein the use of the *una corda* pedal is essential: it alters the timbre, muffles the sound, enveloping it like a sonic mist, contributing to the sense of contact with the beyond. In this fusion of sonic material and bodily gesture, the music comes to embody death itself.

The movement concludes with a shift to the major mode which, though subtle, conveys a faint impulse of hope, as if death were traversed by a distant yet tangible light. It is the body of the visitor, now profoundly transformed, that carries this light within, preparing to emerge from the darkness of the catacombs with newfound awareness.

2. 10. Baba Yaga

The penultimate movement, *The Hut on Fowl's Legs (Baba-Yaga)*, projects both listener and performer into a sonic vortex of malevolence and chaos. Inspired by a pencil sketch by Hartmann for a decorative clock in Russian style depicting the witch Baba-Yaga, Musorgskij departs radically from the object's static nature (as he had done in *Gnomus*) to animate the monstrous figure that inhabits it: a mythological creature who moves about in a hut perched on chicken legs. To bring this image to life, the composer employs doubled, tripled, and quadrupled unisons, percussive effects, dissonant harmonies, and an irregular rhythmic structure that alternates strong and weak accents in constant tension.

The opening, marked *fortissimo*, immediately introduces the scene's ferocity with devastating physical impact, where the musical gesture becomes fully incarnated. The right-hand tremolo, evocative of the witch's sinister mutterings during her incantations, is this time fully notated and must be executed with precision yet extreme lightness, conjuring the dark and insidious aura of the protagonist. This is not an oppressive sound, but a malevolent whisper: the performer must maintain a relaxed wrist, relying on the delicate interplay of thumb and pinky to construct this unsettling texture.

The sonic imagery grows increasingly frenzied, culminating in a terrifying climax that reaches its apex with a *fortissimo* followed by a hammered *sforzato* on octaves, almost representing the moment in which Baba-Yaga revels in the success of her malicious intentions. The final section, a sudden return of the opening material, does not introduce new thematic elements, as though the witch, in her cyclical reappearance, remains unchanged in her violence, leaving the listener with an embodied, lingering sense of danger, disorder, and unrestrained fury that permeates the entire piece.

The technical demands on the pianist are extreme, particularly in the palm-executed octaves, which must be played with both power and precision. These gestures require not muscular rigidity, but a fully conscious physical engagement, strength grounded in bodily awareness rather than force.

2. 11. The great gate of Kiev

The tumultuous conclusion of the preceding movement flows seamlessly into the final piece, *The Great Gate of Kiev*, in which Musorgskij triumphantly celebrates the Russian national spirit and pays homage to the memory of his friend Hartmann. The architectural design that inspired the piece, envisioned as a monumental city gate crowned with a church, was intended to replace the ancient wooden gates of the city of Kiev, embodying ideals of grandeur, strength, and sacredness.

The movement opens with massive chords that evoke the solidity of stone and a sense of monumental stability. Each attack physically recalls the force required to carve sound into space, as though the pianist were actively participating in the architectural construction of the gate itself. Although the *alla breve* indication suggests a binary metric division, some performers opt for a slower tempo, interpreting it in four to enhance the sense of grandeur. However, this approach risks transforming solemnity into stasis. An *embodied* approach instead suggests a two-beat measure that preserves rhythmic flow and vitality without compromising

ceremonial impact. The kinetic energy is thus contained within a broad yet fluid gesture, allowing for sustained and controlled bodily tension.

The tolling of bells, evoked through regular strokes and harmonic resonances, amplifies the sacred atmosphere, while the principal theme, inspired by a Russian Orthodox hymn, introduces an element of inner devotion that transfigures the musical experience into an embodied prayer. The final appearance of the *Promenade*, seamlessly integrated into the heart of the movement, seals the journey of the exhibition's visitor, now transformed by the sonic and spiritual voyage undertaken through the suite.

Thus, in an explosion of sound and meaning, *The Great Gate of Kiev* concludes with a visionary depiction of a heroic and immortal Russia.

Conclusion

The analysis of *Pictures at an Exhibition* through the lens of kinaesthetic imagery reveals that Musorgskij does not merely offer a pictorial translation into music, but rather constructs a deeply embodied and multisensory experience. The composition functions as a device that—through specific musical affordances such as percussive textures, nuanced dynamics, and complex rhythmic patterns—elicits in the listener an internalized perception of movement and space. In this sense, listening becomes an active and participatory process, in which the body, though physically still, responds implicitly to the motor stimuli evoked by the music.

This embodied dimension of musical experience serves as a bridge between the composer's creative subjectivity and the listener's perceptual engagement, producing a form of sensory sharing that transcends mere visual or narrative representation. The listener is not positioned as an external observer but is drawn into a full corporeal and cognitive traversal of the imagined space, where movement and spatial perception are internalized as foundational components of aesthetic experience.

In conclusion, *Pictures at an Exhibition* stands as an exemplary paradigm of musical ekphrasis that extends beyond iconic evocation, articulating itself as a form of embodied communication. Musorgskij succeeds in translating lived experience into sound, transforming it into a perceptual journey that engages motor memory, emotion, and imagination. The work thus emerges not merely as an artistic transposition but as a process of sensori-motor mediation, in which music plays an active role in shaping an integrated and multisensory aesthetic experience.

Such an approach contributes to a broader understanding of the expressive potential of musical ekphrasis and of the ways in which music can embody and convey complex perceptual and emotional experiences.

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