

The Training Value and Performance Characteristics of the Spine in the Martha Graham Training System

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Abstract

Martha Graham declared that *the body never lies*, establishing a foundational axiom in modern dance that privileges primal vitality over the codified aesthetics of classical ballet. Central to Graham's revolutionary training system is the principle of contraction–release, a breath-driven, spine-centred force mechanism that seeks to restore the inherent tensions of human nature through movement. This paper argues for the critical importance of spinal expression in modern dance performance, identifying the back as a highly sensitive site capable of truthfully reflecting a dancer's inner emotional state. Drawing from classroom-based practice and the phenomenological transition from observation to bodily identification, the study analyses how Graham's system utilises spine training to restore emotional authenticity. It further examines how the resulting bodily language is applied within contemporary choreographic practice. The paper contends that training the spine is not merely an isolated muscular exercise; rather, it constitutes a profound remoulding of the physical form intended to bridge the gap between technical movement and the dancer's emotional interiority.

Keywords: Spine Training, Modern Dance, Martha Graham Training System, Contraction–Release, Emotional Expression, Back Expressiveness

Introduction

Modern dance emerged as a historical necessity, born from the rejection of classical ballet's codified movement vocabulary. Isadora Duncan's provocative declaration that classical ballet was devoid of authentic beauty (Ou, 1996, p. 148) catalysed a broader movement that would fundamentally redefine the relationship between the dancing body and emotional expression. Among the many systems that subsequently developed, the Graham training system has exercised the most far-reaching influence on modern dance pedagogy and performance practice worldwide.

Martha Graham constructed a distinctive movement language that sought to reveal the nature and emotions of the individual, the collective, and society. Her training system, centred on the principle of contraction–release, accomplished two concurrent objectives: it produced backs that were stronger, more supple, and more elastic, while simultaneously magnifying the emotional expressiveness of movement itself and restoring what Graham understood as the primitive, animalistic emotional consciousness of the human being. In Graham's conception, the back is both profoundly sensitive and highly expressive. Therefore, in modern dance performance, the expression of the back may be understood as a localised amplification of contraction–release, endowed with life, emotion, and meaning.

The spine and back constitute the crucial structural axis that supports the limbs and generates movement across all major dance traditions. Whether in the four aesthetic principles of classical ballet, the body-rhyme (shenyun) tradition of Chinese classical dance, or the liberation aesthetics of modern dance, movement is generated from and through the back. However, the processes of modern dance training, choreography, and performance are simultaneously processes of self-recognition through the body and of consciously reconstructing one's bodily form. This paper examines the training value of the spine within the Graham system and analyses the performance characteristics of spinal expression across multiple choreographic contexts, arguing that the expressive power of the back in modern dance constitutes a process of restoration and remoulding from lived bodily experience.

Literature Review

Scholarly engagement with Graham technique has developed along several intersecting trajectories: biomechanical analysis of contraction–release mechanics, phenomenological accounts of dancer experience, and historiographic studies of Graham's choreographic legacy. Graham's own autobiographical text, *Blood Memory* (1993), remains a primary source for understanding her philosophical commitments, particularly her insistence on the body as an instrument of truth-telling and her conceptualisation of movement as originating in the relationship between human beings and animals. Graham's assertion that modern people have lost their animal qualities (Graham, 1993, p. 113) functions not merely as provocation but as a programmatic statement grounding her entire pedagogical approach in the recovery of primal bodily intelligence.

From an anatomical perspective, Gao (2004) provides the foundational description of the back as the part of the human torso formed by the two shoulders and the upper back, identifying it as the body's primary weight-bearing structure (Gao, 2004, p. 70). This anatomical grounding is essential for understanding why Graham placed the spine at the centre of her training system: it is simultaneously the body's structural axis and its most complex kinetic chain. Zhang (2014) extends this anatomical baseline into pedagogical territory, offering systematic documentation of modern dance technique training that positions spinal control as the prerequisite for all subsequent technical development.

The relationship between breath and movement in Graham technique has been theorised most directly through Liu's (2011) historical account of Western modern dance, which records Graham's two-step principle of bodily activity: first strength training, second the expression of the self and emotion (Liu, 2011, p. 163). This sequential formulation is significant because it refuses to separate technical conditioning from expressive capacity,

treating them instead as phases of a single developmental process. Liu's (2001) complementary work on dance body language provides the theoretical vocabulary for understanding bodily contact as communication, arguing that contact between bodies constitutes a deeper form of exchange than contact between hands (Liu, 2001, p. 166), a proposition that directly informs the analysis of duet work in Graham repertoire.

Yu (1999) situates dance aesthetics within broader cultural frameworks of grace and dynamic charm, providing the conceptual apparatus for distinguishing between the upward, radiating aesthetics of classical ballet and the earth-bound, gravity-compliant aesthetics of modern dance. Ou (1996) contributes the historical contextualisation necessary for understanding Graham's work as product of a struggle for freedom and liberation under the rigid performances and inflexible classical techniques of ballet (Ou, 1996, p. 148). Together, these sources establish the scholarly landscape within which Graham's spine training operates, though a significant gap remains in the literature concerning systematic analysis of how spinal expression functions as a discrete performance parameter across different choreographic contexts. The present study addresses this gap.

The Anatomical and Aesthetic Significance of the Spine Across Dance Genres

From the perspective of anatomy, the muscles of the back and the spine maintain the upright posture of the body, control balance and the centre of gravity, and thereby sustain the most fundamental movements of the human body (Gao, 2004, p. 70). For dancers, training demands far greater precision and flexibility in controlling spinal and back movement than everyday life requires. However, different aesthetic principles determine fundamentally different artistic forms, and consequently different dance genres possess distinct postures and modes of back expression. This demands of dancers an extraordinarily strong expressive control of the spine far beyond ordinary human capacity.

Classical Ballet: The Upright Axis

The bodily posture of classical ballet resembles palace architecture within old aristocratic courts: it possesses an inherent temperament of pride and an upright, towering torso. Within the aristocratic aesthetics and the outward expression of inner feeling characteristic of Romanticism, artists sought to approach ideals and ascend into an imagined realm. The removal of cumbersome high heels, the casting off of floor-length gowns, and the adoption of light white tutus and magical pointe work formed ballet's unique bodily artistic characteristics: a light and upward dynamic quality, and formal qualities of pride, erectness, and loftiness. Its aesthetics may be summarised by four principles: opened, stretched, straight, and upright. Ballet is both a linear art and a radiating art, requiring dancers to extend bodily lines to the utmost and to manifest its aristocratic temperament through pure aestheticism. The back must stand upright like a door panel. Consequently, when appreciating this art of legs and feet, attention is characteristically drawn to the dancer's limbs, the number of turns, the height of jumps, and the degree of technical difficulty.

Chinese Classical Dance: The Curvilinear Axis

The bodily posture of Chinese classical dance emerges from Chinese classical culture and spirit, forming an art of curves. It emphasises the rhythmic principle of twisting and inclining the torso, moving in circular curves, coordinated with vertical shifts and spatial expansion-contraction, achieving rounded, fluid dynamics. Through the dynamic tendencies

of containing, protruding, rushing, leaning, and moving in circular pathways, combined with the rise and fall of breath, Chinese classical dance creates a curvilinear beauty and restrained, supple temperament that highlights the profound meaning and subtle essence of harmony between humanity and nature (Yu, 1999).

Modern Dance: The Liberated Axis

Modern dance, by contrast, is anti-aesthetic in orientation. It emerged as the product of a struggle for freedom and liberation under the rigid performances and inflexible classical techniques of ballet (Ou, 1996, p. 148). It is therefore a means of expression, a powerful and emotionally charged art. The breath of modern dance originates in life itself, while changes in the body are formed through the natural flow of breathing. In performance, a sudden intensification of force can produce abrupt contraction and expansion in the back. This is the externalised and amplified manifestation of inner emotion and tremors of breath. One can observe the elegant nobility of the extended arabesque in *The Sleeping Beauty*, the flowing ease of the Chinese classical work *Xiaoyaoyou*, and equally the despair conveyed by Fan Yi's convulsing back when forced to drink medicine in Cao Yu's *Thunderstorm*. Each represents a fundamentally different relationship between the spine and aesthetic meaning.

Contraction–Release: The Core Mechanism of Graham's Spine Training

Graham proposed that the process of bodily activity contains two steps: first, strength training; second, the expression of the self and emotion (Liu, 2011, p. 163). In the Graham training system, the core dynamic element of contraction–release runs throughout all exercises. It penetrates the source force of human life activity—breath—and, through this most fundamental action that traverses the entire process of life, activates the central nervous system of the spine and drives the coordinated movement of the whole body, beginning with the back. Contraction–release is an artistic exaggeration built upon natural breathing: it highlights the dynamic alternation of exhalation and inhalation, magnifying the action of breath into the rising and falling movements of the back and expressing intense desire.

The Mechanics of Contraction–Release

In the Graham system, the abdomen is the source of movement—the place where life is nurtured and the apparent origin of all emotion and desire. The spine is the tree of life: one must feel it rooted in the earth like a great tree while extending upward with strength (Zhang, 2014). Breath brings different rhythms to the body, and Graham placed particular emphasis on the exaggerated contractions and extensions of the spine caused by breathing. Through a powerful, almost spasmodic contraction of the abdomen followed by a forceful extension of the spine, the work communicates the intense collisions and conflicts of human nature.

In the most basic training of a single contraction and release, beginning from a standing posture, contraction starts from the coccyx. Driven by exhalation, the sudden contraction of the lower abdomen initiates spinal movement, causing the coccyx, lumbar vertebrae, and thoracic vertebrae to contract in sequence, so that the back forms an arch and the head tilts upward. Externally, the body resembles a slowly deflating balloon, while internally the consciousness continues to extend upward. During release, also beginning from the coccyx, extension restores the coccyx, lumbar vertebrae, thoracic vertebrae, and cervical

vertebrae section by section to the spine's natural vertical state, as though the internal balloon were slowly being inflated and filling the whole body.

During movement, the latissimus dorsi must extend upward while both feet cling to the ground and extend downward. From contractions in standing positions to contractions in seated positions, supine positions, and floor rotations, the back must be trained for elasticity, flexibility, strength, and softness. These qualities ensure that changes in the back driven by breath can stabilise the centre of gravity during movement, control bodily motion associated with sudden changes of speed, and lay the foundation for techniques such as turning with the back.

Contraction–Release as Emotional Architecture

Graham insisted on the connection between spinal contraction–extension and inner feeling: contraction is a tense and complex emotional expression produced by human beings under a kind of pressure, whereas extension and opening are breakthroughs and struggles against that pressure. The theoretical basis of Graham technique is that, accompanying breath, the abdomen serves as the source from which energy contracts and extends toward the limbs. Graham awakened the energy within the body, allowing its revival to pass through the torso, neck, and head and be released in an ascending process, while also travelling downward through the legs to the feet and into the earth. What the dancer must do is consciously make use of this breath action so that the body, accompanying extension and contraction, actively mobilises energy and emotion and dances meaningfully.

The greatest vitality of the Graham training system lies in Graham's adherence to truth and nature. She regarded the alternation of expansion and tension in breathing as an important and complex process of life, and exaggerated the action of breath into sharply contoured movements with rhythmic rise and fall, manifested through postural changes of the back and other parts of the body. This is fundamentally different from the smoothness of classical ballet, which conceals bodily shape changes caused by breathing. Graham transformed contraction–release from the inside out into a powerful and forceful expressive form, enabling dancers' backs to possess both strength and resilience while revealing intense inner emotional contradictions and achieving a unity of form and content.

The Spine as Expressive Instrument in Performance

Martha Graham not only removed her dancing shoes; she led the entire body into the depths of human nature. No longer concerned with how lines of movement extended through space, she turned instead toward where the body's inner energy and intense feeling erupted. Beginning from an understanding of her own long torso, she sought the essential significance of basic movement, whose source lay in the relationship between human beings and animals. Graham observed that modern people have become overly cautious about themselves, and our bodies have lost their animal qualities (Graham, 1993, p. 113). She required dancers to contract painfully and tensely like wounded beasts, and then to resist stubbornly by expanding outward. What appears to be an art of deep extension and inflation is in fact a release of repressed feeling—silent, yet sonorous and powerful.

Uprightness and Erectness

When people straighten their backs and lift their chests, they actively expand the space occupied by their bodies. This posture expresses confidence, fearlessness, nobility, and integrity, and corresponds closely to the aesthetic standards of classical ballet: the elegant confidence of a princess, the airy grace of a fairy, and a smooth, stable sense of flow. Graham's movements generally sink downward, remaining concise, asymmetrical, and full of tension, complying with gravity to express the inner emotional world. Yet Graham also followed inner emotion where it led. In *Frontier*, dressed in a bright red dress and positioned before two bars and ropes symbolising the prairie, Graham stood upright and radiated through her limbs, using forceful actions such as leg kicks to convey the pioneering spirit of the period of American westward expansion, together with confidence and determination for the future.

Curling and Contraction

Compared with uprightness, curling and bending constitute a closed bodily state expressing pain, unease, fear, and defence. When a person encounters physical or psychological attack, the first reaction is often to contract the abdomen and bend the waist. Extreme force can cause the back to evolve into curling and hunching, reducing the living space occupied by the body, sealing the self off and immersing it in suffering. Graham valued emotions such as sorrow and loss. When she wished to express sadness and disappointment, she did not simply require a lowered head or collapsed chest; rather, she demanded the sinking of the entire body to express this feeling, analogous to the sinking heart itself—a sensation rather than a posture.

In *Lamentation*, Graham wrapped her body completely in a highly elastic tube of fabric. This enormous tube functioned as a spiritual shackle that brought immeasurable grief: it restricted bodily movement yet simultaneously highlighted the angularity and strength of her motion. Through large-scale curling, twisting, and stretching of the back to deform the outer surface of the fabric, and by allowing the angularity of the limbs and joints to struggle within it, Graham intensified the sense of powerful, almost spasmodic, tense contraction of the abdomen followed by forceful spinal extension. This draws all attention to the back straining against the fabric and communicates the intense inner conflict and external collision of human nature.

Undulation and Twisting

Undulation in the back signifies rising excitement or anger, as breathing becomes rapid and causes the back to assume an unstable, fluctuating form that suggests an impending eruption of intense emotion. As emotion becomes more aroused, the amplitude of these undulations grows stronger and more forceful. At such moments, dancers require not only a resilient back but also strong muscular control. When undulation becomes rhythmic, it develops into twisting—a more embellished form that intimates concealed emotion on the verge of bursting forth.

In Cao Yu's *Thunderstorm*, the duet between Fan Yi and Zhou Ping demonstrates how the suppressed Fan Yi discovers the impulse of love through Zhou Ping; the twisting of her body as she leans on him is passionate and unrestrained, yet after the excitement comes timidity, retreat, and struggle. Similarly, in contemporary reinterpretations of *Swan Lake*, the boy's sudden twisting of the back becomes an unexpected act of resistance and challenge,

while the students' twisted and mutated floor movements function as a form of anti-ballet, carrying an ironic critique of conventional beauty.

Turning the Back: Dialogue and Rejection

Contact between bodies is a deeper kind of contact than contact between hands (Liu, 2001, p. 166). In a duet, the presence of two bodies constitutes an exchange of feeling and a dialogue. Turning the back can be understood as a twisting away from the other person; it may also appear literally as facing away or turning one's back, signifying rejection, disregard, or avoidance.

In one classroom assignment for modern dance choreographic practice, a student created a fragment that vividly demonstrated the body language of turning the back. A boy lives humbly in the world of a girl whose many expectations place enormous pressure on him. Gradually he begins to resist and finally gives up. Standing with his back to the girl, he no longer responds no matter how she pursues, pleads, or questions. At the end, the girl droops helplessly while the boy's back-facing expression creates between them an unbridgeable sense of distance. This example demonstrates that the back, like the face, possesses expressive patterns that can convey emotion accurately and, at times, more forcefully than direct facial expression.

From Graham's Training System to Contemporary Practice

Modern dance possesses enduring vitality because it is a performance of states of life. The essence of the dancer is the embodiment of the human spirit, and every movement of the body carries emotional desires related to life, death, love, hate, and more. The ultimate goal of modern dance training is to use the body's primitive basic rhythms consciously, so that the body becomes a sensitive, danceable, expressive, and meaningful instrument—one that dances out the self's original condition while constructing, through one's own body language, a cultural world.

Graham's training system allows dancers to return to the body, and the significance of this return lies in returning to life itself: discovering the most primitive meanings generated by bodily movement within instinctive rhythm, and then continuing, under the guidance of body–mind–intention, to develop one's own unique bodily proposition. The transition from a state of life to stage performance is not only a process of emotional transformation but also one of magnifying close-ups of life and emotion. If the body in life is regarded as something physical, then the changes it makes are normal physiological reactions. On stage, however, the body embodies an attitude toward human beings and the world; it expresses love, hatred, joy, and resentment under a particular condition.

Graham's technique may even be described as belonging to the classical or traditional meaning of modern dance. Yet as dancers of the present, what is truly needed is to begin from the foundation of the classic and then search for new movements, new modes of self-expression, and new ways of speaking through movement—forms of bodily proposition that belong to contemporary people. Contemporary choreographers and dancers must develop individualised body language within the commonality of Graham's prototype and typical movements. This individuality must likewise originate in contraction–release and be contained within that commonality.

Beyond the tension and spasm characteristic of Graham technique, other bodily experiences represent precisely the directions that require development. One may seek a point of balance between tension and relaxation so that resulting movement appears relaxed and flowing even as the centre of gravity shifts rapidly. Starting from the dantian, energy is transmitted layer by layer, driving the movement of the limbs, the steps, and the arms, and ultimately driving the movement of the whole person. After long periods of systematic training, Graham's breath, emotion, movement, and other visible and invisible bodily traces merge into the dancer's blood like memory. It is precisely this body–mind–intention that can guide bodies to undergo different changes and developments in different environments, becoming a new starting point for establishing and creating the self.

Conclusion

Human existence is both bodily and spiritual. The body in modern dance is a direct embodiment of the soul. Unlike ballet, which regulates the body according to formal norms, modern dance follows genuine inner feeling in questioning the body. Graham made concrete the loneliness, passion, desire, grief, and other emotions she experienced. She attempted to strip away the outer garments that conceal the purposes and methods of human behaviour and to reveal the inner structure of human beings through concrete dance structures. Training the spine is not merely the cultivation of muscular ability to contract and extend, but also a conscious and in-depth capacity to actively use the expressive potential of the back.

Situated behind the body, the back may appear, from the perspective of performance, capable of concealing emotion and consciousness. Yet once it begins to speak, what it reveals can more profoundly reflect what had been concealed, thereby restoring the tension of human nature. The significance of Graham's spine training lies in truly integrating contraction–release into the dancer's being. Through the Graham training system, dancers gain knowledge of the body and discover a sense of their own existence. The instantaneous contraction–release is a process of contraction–recovery; only after it is transformed and choreographically reshaped in terms of time, space, and force does it become something dancers regain as their own concepts and feelings. What contemporary dancers actually receive from the Graham training system, and how much of it they truly apply, is what most urgently requires reflection.

Theoretical and Contextual Contributions

This study makes distinct theoretical contributions to dance scholarship and modern dance pedagogy. Theoretically, it systematically clarifies the centrality of the spine within the Martha Graham system by linking anatomical structure, breath dynamics, and emotional expression into an integrated analytical framework. It extends existing phenomenological and technical studies of Graham technique by treating spinal expressiveness as an independent performance variable rather than a by-product of movement. By comparing ballet, Chinese classical dance, and modern dance, the research also provides a cross-aesthetic foundation for understanding how the spine carries different aesthetic logics, enriching the theoretical discourse of dance body aesthetics and kinetic theory.

In terms of contextual contribution, this research responds to the practical needs of contemporary dance training and choreography. It offers clear, operable principles for spinal training that help dancers bridge technical skill and emotional authenticity, addressing a

common gap between physical technique and expressive depth in studio teaching. For choreographers, the five expressive dimensions of the spine (uprightness, curling, undulation, twisting, and turning the back) provide a reusable bodily language for constructing character emotion and dramatic tension. In the context of cross-cultural dance practice, this study also highlights how Graham's spine-centered system can be adapted to contemporary and intercultural choreography, supporting the innovation and sustainable development of modern dance in educational and performance contexts.

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