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Abstract

The space around our bodies is not empty or neutral. In fact, the space around our bodies is loaded with meaning and important. When we move through it, whether it be in our daily lives or a choreographer making specific choices in order to convey a message, we activate new understandings in our lives. As a dancer and choreographer, I created a duet from improvisational climbs on an icosahedron. This article discusses choreographing from the form icosahedron and connects Laban's theories of space harmony with the activation of meaning in my life.

1 Introduction

Dancers often say that dance is a way of knowing and expressing through the moving body. Dance artists report that the choreographic process is a way of working through something, making sense out of something, whose significance they only later come to realize. The year 2022 was mostly post-covid. For me personally it was also a year post-divorce and the loss of a primary mentor and colleague. It marked a time during which I was working to put together a new vision for my future and foster new personal and professional relationships. Simultaneously, the spectacular dance studios in the Miller Performing Arts Building at Alfred University had acquired a large climbable icosahedron[2] (icos) whose branded name is the Maverick, and I had been going in almost daily to train my body physically through climbing and dancing about the structure.

Figure 1: The icosahedron

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[2]An icosahedron is one of five geometric forms in the family known as the platonic solids. The structure of icosahedron includes twenty faces all identical equilateral triangles, twelve vertices, and thirty edges. Each platonic features identical faces and identical three-dimensional vertices. The platonic solids are the tetrahedron, octahedron, cube, icosahedron, and dodecahedron.

(a) Snapshot of Steeple Phrasing (see Video 1)

(b) Snapshot of Volute Phrasing (see Video 2)

Figure 2: Steeple and Volute phrasing.

Right around the time I initiated separating from my then husband, I started a daily practice of Laban's movement scales. Laban's scales are sequences of movement in which the human body moves through the space immediately around it. The places the body goes to, including the sequence and pathway from one place to another are organized around the vertices of different geometric forms known as the platonic solids. Laban primarily used the octahedron, the cube, and the icosahedron. Laban himself wrote extensively about this work and its relationship to his larger philosophical stance in *The Language of Movement: A Guidebook to Choreutics* [1]. Laban's student Valerie Preston-Dunlop has added significant additional scales in her text *Point of Departure* [2]. These scales have a similarity to musical scales that a musician plays to tune their ear, hand and instrument. Each scale also contains unique feeling tones and metaphorical and artistic associations.

While I had 'danced around' these scales for many years, I did not have a consistent practice of performing them. As I sensed the massive, destabilizing changes ahead in my life, I sought something I could count on, and having a moving body through whose presence I could experience the rhythms of change, especially rhythms of stability and mobility seemed like a very fitting way to help me navigate what seemed to be coming. Furthermore, the wise words of friend and fellow Laban/Bartenieff Movement Analyst, therapist and somatic therapist Aida Curtis echoed in my thoughts, 'I don't want change to feel like a Steeple, I want change to feel like a Volute' [3]. The

sentiment of this statement refers to the A and B Scales based on the icosahedron, and while the points in space and their sequence is consistent between the Steeple and Volute phrases, the way the mover phrases from one point to the next colors the feeling of the pathway.

Steeple Phrasing (See Video 1 and Figure 2a) often feels puncturing, fast, reversing in nature and highly mobile; while Volute Phrasing (See Video 2 and Figure 2b) feels swing-ey, gradual, with enough consistency maintained that there is a thread of stability. As I embarked on the daily scale practice, I thought being able to move through both phrasings in my body might help me navigate all possible phrasings of the changes coming.

2 Laban's theory of space harmony

Rudolf von Laban's theories of Space Harmony explore the three-dimensional space around the human body, and how the body moves through the space around it in specific and often patterned ways [4, p.122-124]. Trained as an architect and remarkably adept as an observer of human movement, Laban saw the organized interaction between the material body and the material space around it. As a philosopher of human movement and choreographer, Laban's work sought to illuminate the expressive and metaphorical aspects of how we engage with and make sense out of the spatial world around us.

One way Laban observed and organized the spatially patterned nature of human movement was by super-imposing platonic solids around the body with the center of each structure paired with the center of the body. From here he tracked the body's movement in connection to different forms and their related spatial pulls and pathways through space. Based on his observations and related physical training practices, he noticed that each platonic solid brought unique qualities to movement and thus unique ways to experience and train the body. In one sense every form is unique the degree of stability and mobility required to navigate its spatial pulls. In another sense, each encouraged expressive qualities unique to itself. For example, movement that follows the spatial pulls of the octahedron (see Video 3 and Figure 3), that is up/down, side/side, forward/back, and containing one-spatial pull in one direction, is often associated with ritual movement, familiar movement and stabilizing movements [5, p.114-115]. Furthermore, the gesture

Figure 3: Snapshot of octahedron scale inside of icosahedron (see Video 3).

known as the sign of the cross in Christianity follows the first four of the above listed places. Many of the positions and movements associated with ballet barre also reflect the spatial pulls of the octahedron, as does much basic weight training.

To deepen his exploration of the body's movement through the space around it, Laban created scales based on the platonic solids. Each platonic solid has multiple movement scales that reflect the unique ways the spatial pulls of the form correlate to movement through space immediately around the body. These scales are similar to the scales a musician might play to tune their ear and body to a certain instrument, key and even community of other musicians. Some of the reasons a scholar of movement would perform Laban's movement scales include tuning the body to specific spatial pulls, deepening a sense of the body's center and how to mobilize the center into and through the spatial world, and to experience and further tune the oscillating tensions of stability and mobility running through the moving body.

3 Personal perceptions

When I first got inside the large metal, climbable Maverick (see Video 4 and Figure 4), I was most captivated by the many choices to push, pull, and swing my body along and through its playground-like structure. It reminded me of life, I make one choice, and then another and another, and soon I notice I am in a very different place than I was when I started, though the process of going from there to here was a bit hazy. But beyond that, it felt good to stretch in angles I do not normally stretch in, even with shoes the bones in my feet felt massaged and pliable as they adapted to the rounded metal edges as uneven terrain, and my eyes felt activated as they searched for the next place to land the free foot or hand. I had for years been studying and performing Laban's scales in the icosahedron which emphasize complex rotation spread simultaneously across multiple joints (see Video 5 and Figure 5) and subtle, three-dimensional weight shifts through many planes and levels. Despite this, being able to actually push my body into the form, pull myself up and over its top, swing from one face to another was an absolutely new experience.

Figure 4: Snapshot of climbing in icosahedron (see Video 4).

As I spent more time in the icos, exploring moving around the icosahedron and attending to how my experiences training in it impacted my perception of my body and my capabilities in movement, I noticed it was profoundly changing me. At first it was disorienting. Upon returning home from my first day training, I could not remember where the utensils were in my kitchen. As the training explorations progressed, I

started to feel like a day was not complete without time in the icos – I needed to move around it in order to feel both oriented and open to explore possibilities. I noticed I was becoming much stronger and more coordinated through my core. I would walk out of the many sessions feeling centered, flexible and strongly pliable, physically and psychologically.

While climbing around the Maverick did not activate the same spatial patterns as Laban's scales associated with the icosahedron, my climbing practice was having a similar physical and psychological impact as doing the scales can have, just in a more integrated and muscular way. Some of these shifts included the feelings listed above. Other changes included feeling increasingly capable of navigating the shifting sea of emotions within me (that is feeling them, feeling that I could stay with them, and feeling adept at how to translate them into action I felt good about), and a new spark for my creative process, especially myself at the intersection of metaphor and action in my writing and choreography. After training in the icosahedron, I found myself inspired to give my experiences form in other expressive mediums including: writing poetry about the body, making videos for friends to support their physical and athletic goals, and developing new understandings of human movement. While my career focuses on exploring the ways we experience and make sense out of human movement, theoretically and practically, the connections I was making through working in the icos were bridging and deepening my understanding and doing so very quickly. Many ideas I had known theoretically were coming to life, felt in my body and metaphorically connected to ideas I was working on the rest of my life. Truly and profoundly and in many areas of my work, the training on the icos seemed to be opening new depths of my creative process.

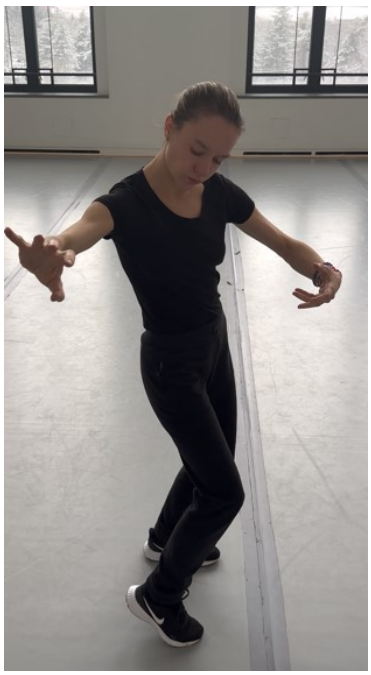

Figure 5: Snapshot of 3-d rotary function (see Video 5).

4 Why study and move the icosahedral scales

There were many reasons Laban was purportedly drawn to developing movement scales within the icosahedron. One reason Laban preferred the icosahedron is that the internal infrastructure of the icosahedron is the three cardinal planes of motion (see Video 6 and Figure 6). The three planes of motion are vertical (frontal or door), horizontal (transverse or table-top), and sagittal (axial or wheel). Each of these planes is a flat surface in space which contains two unequal 'spatial pulls'. For example, the

vertical plane has primary pulls in up/down and secondary pulls in side/side and no pulls in forward/back [5, p.117].

Laban noted relationships between the structure of the icosahedron and the structure of the material body. The proportions of the up/down to side/side pulls in the vertical plane is in the golden mean. Much like DaVinci's Vitruvian man, the proportions in the icosahedron seemed to echo something about the human body, which is mostly up/down, a little side/side and lesser forward/back [1, p.144]. The prevalence of the golden mean in the human body seemed to lend credibility to a relationship to its connection to the icosahedron [5, p.106].

Laban observed that when applied to human movement, each platonic solid, including the cube, octahedron, and icosahedron, encouraged specific patterns of movement that place particularly unique demands on the body [5, p.128-131]. Laban found that the structure of the icosahedron was formidable for complex patterns that trained the body in equally complex and valuable ways. For example, one scale based on the icos is known as the A-scale (see Video 7). The A-scale moves from one vertex of the icosahedron to another, passing through all twelve of them before returning to the beginning. The pattern of these includes a corner of the vertical plane, a corner of the sagittal plane and then a corner of the horizontal plane. This pattern repeats four times, until all twelve are passed through. Another pattern is that the pathway between each vertex in the A-scale is what is called a transversal, meaning it moves from the corner of one plane to the corner of another plane while passing through the third plane [1, p.147-148] (see Video 8). In order for the human body to achieve movement that follows and reflects the transversal it must be able to move in gradual rotational patterns in which the movement is spread across many joints at once. It must also shift weight, meaning moving the body's weight from one base of support to another in three-dimensional and complex ways.

Figure 6: Snapshot of planes of motion in icosahedron (see Video 6).

Another aspect of many of the scales based in the icosahedron is that they reflect rhythms of stability and mobility that are present in the day-to-day movements humans execute as they move through their lives [5, p.130-131]. If you were to observe people standing in a line at a coffee shop you would likely notice how when the line moves forward and they need to advance to also move forward, most people shift their weight to one side and reach up through the shoulder on that side in order to extend the opposite leg forward and then take a step. This pattern of moving from side high to forward low is the first transversal in the A-scale. There are two competing possibilities in the A-scale (and other scales based in the icosahedron), one emphasizing

training the body for complex motor patterning and the other an echoing of the easy, quotidian patterns of human movement.

Over the last few years, I have encountered other metaphorical and relational reasons for engaging and practicing the scales based on the icosahedron. One connection came through the work of Lucas Koenecke, who created and patented the Maverick with collaborator Grayson Smith. Lucas works with athletes to increase their movement skill by integrating the coherence between the nervous system and brain through movement. The vestibular system in the inner ear is a primary component to balance. The messages from the vestibular system need to match the messages from the visual and proprioceptive systems for the brain to make coherent sense of where the body is in space. The design of the vestibular system includes three loops, one cycling each plane of motion, and a spiral. When there is head and neck movement the vestibular system reacts by sending messages to the brain about the orientation of the body in relationship to the vertical. Movement training in the icosahedron often activates the vestibular system, and because the icosahedron also is also a visual and motor (proprioceptive) training platform, it helps to integrate coherent messages through the nervous system and to be processed by the brain [6]. This in part reflects the success places like the concussion rehabilitation center CognitiveFX in Provo, Utah has such success in improving brain function of those with traumatic brain injuries.

Another potentially relevant connection relates to the metaphorical properties associated with the icosahedron. Plato associated the icosahedron with water, emphasizing likeness between the fluid properties of water and the soft fluidity evoked by the icosahedral form. Symbolically, the icosahedron has connections with concepts such as to 'go with the flow' and have the wisdom to trust the unfolding flow of life. It is also associated with transformation – the process of taking on new shape, a definition that also inherently describes human movement.

5 Choreographing in and through the icosahedron

Choreographing a duet means dealing with some sort of relationship between two people. When I set out to make a duet with two student dancers at Alfred University, I was unclear what kind of relationship I was going to be working on and I was nervous to have to choose. Sometimes choreographers have a very clear idea of what they want the dance to look like and set out to realize that dance. In this case, I had no idea what the final form of the dance would be like, not even a desire for what it would be. I was heading into the creative unknown.

We began our rehearsal process by taking turns improvising and climbing on the icosahedron while the others (another dancer and myself) watched. The observers would note what caught their eye or interested them and then during their turn on the icosahedron they would build upon it. After climbing on the icosahedron, the dancers would then move to the main studio space, where they would work to remember what they had done in the icosahedron and create 'phrasework' - that is, movement material that would become the dance. We repeated this cycle several times in several different

rehearsals. As the choreographer, I would also climb on the icosahedron and make phrasework based on what I was seeing and doing that interested me. As we built phrases, I started organizing them in time sequences and the stage space, ultimately with the stage space in mind.

Slowly through this process a duet emerged whose tone felt both casual and precise, relaxed and yet very specific. There was a flirtatious and familiar ease about it. The songs for the dance were from Trombone Shorty, primarily 'Where It At?' featuring lyrics that state 'I want my heart back'. The music choice came from a random Spotify shuffle that played in the background during one of the icosahedron improvisations that 'just seemed to work'. It seems rather obvious now as I describe it, but at the time of choreographing this dance I was not consciously making choices about the content of the dance in relation to the context of my life. Rather, it seemed I was making the dance that was emerging from the interplay between the icos, the dancers and me.

Movement description and analysis

The dancers wore sage green sweatpants and t-shirts of the same color. Casual and relaxed in their approach to each other, this dance almost does not feel like a dance, but more a scene between people in their home. Despite the ease, there is a sense of precision, they know exactly where they are going in the space around their bodies, they seem present with themselves and each other, though it is unclear if they know they are being watched by a large audience.

After a solo emphasizing cycling the horizontal plane and movement initiated by the elbow that seems to gut the body and a swimming soft spine a second dancer enters the stage. In unison, the two dancers reach their left legs to the back low corner of the sagittal plane, releasing that spatial pull they tumble forward, and the left leg extends now to the left, side low corner of the vertical plane. Using the forces of momentum, they spin 360 degrees around and kick to the front low corner of the sagittal plane. One dancer begins to exit while the other, reaches the right elbow to the right, high corners of the vertical plane, then cycles the arms through the sagittal plane and places hands on the ground and swings legs overhead before a swinging arm movement that emphasizes the vertical plane.

It would be very tedious to continue reading a blow-by-blow analysis of the spatial patterns of the dance titled *You Jump First* (See Video 9 and Figure 7). So, I will give you a synopsis. The majority of spatial emphasis and pulls in this piece are reflected in the geometry of the icosahedron. While I did not intentionally choreograph to the vertices and spatial pulls of the icosahedron, the movement was transposed from our exploration of the structure itself. And, the two dancers, as well as myself, had been training on the icos on our own, leading to a growing neuromuscular preference for these pulls.

As I observed the near exclusive pulls of the icosahedron in this work, I became curious about the spatial pulls in my prior two choreographic works for the same concert several years before. Thus, I performed an analysis of the spatial pulls in these works. Both reflected patterns in space that were nearly absent from the icosahedron, instead

emphasizing almost totally the spatial pulls of the octahedron. The spatial pulls in the octahedron are much simpler than those of the icosahedron, as they fall along single spatial pulls, not the two unequal spatial pulls of the icosahedron. Despite being simpler, the spatial pulls of the octahedron are also more dramatic as they reflect movement that is fully invested in single pulls. They are also easier to teach and coach for uniformity amongst dancers.

There was a clear qualitative difference, between the dances reflective of the octahedron and the dance based in the icosahedron. *You Jump First*, (icosahedron) had a feeling of momentum and continuity, that was mobilizing yet relaxed. Meanwhile, the prior dances (octahedron) had a qualitative tone that was more like clear, simple austerity of the single spatial pulls of movement.

Overall, the result of the icosahedron in *You Jump First* was a work whose character was distinctly every day, and clear in space, virtuosic in its simplicity. Reflections from audience members included 'lovers on Sunday morning who cannot decide if they want to go back to bed or make coffee', and 'siblings or lovers who are very comfortable with each other', 'what I want in a romance'.

Figure 7: Performers in *You Jump First* (see Video 9).

6 Conclusion

Rudolf von Laban believed that the space around the body speaks and where we go in this space and how we move through it is evocative and loaded with meaning. His decision to superimpose platonic solids around the body allowed us to map the patterns of movement through the space around the body. His observations lead him to notice that different platonic solids carry unique feeling tones and associations in our lives.

Whether conscious or not, we move through the space around our bodies all day long primarily patterned by the spatial environments in which we inhabit. As Winston Churchill so eloquently states in his 1943 address to the House of Commons [7], '[w]e shape our buildings; thereafter they shape us.' My time inhabiting the icosahedron seems to have shaped and changed my choreographic style, as well as the dancer students who were training alongside me. Our movements are more precise, yet our dance looked easy and relaxed. And our spatial pulls had fully shifted from one platonic solid to another.

A year after the dance's premier, my look back on reveals to me more meaning and import contained in the dance than I knew at the time. While I was choreographing *You Jump First*, and wrestling with the structure of a duet, in my personal life I was settling into my second year as a single person, and the changing feelings of my heart.

During dress rehearsal a year ago, the first person I had dated since separation sat next to me in the audience. It was maybe our fourth date. I sensed his eyes watching this casual, relaxed duet and saw the dance as others had described it. I wondered if he too saw this dance as the making of the world which I my heart wished for. I also realized that there was something fluid and adaptable about the movement in this dance that felt like water moving through a gorge – it kept going morphing and shifting to the landscape around it, yet also slowly over time carving out the landscape containing it. The continuity of the water to be calming or surging with power. Perhaps this dance was teaching us a new way to navigate the changes of life and a new way to engage in partnership.

References

[1] Laban, R. The Language of Movement: A Guidebook to Choreutics. Annoted and Edited by Lisa Ullmann. PLAYS, INC., Great Britain: 1974.

[2] Preston-Dunlop, Valerie. Point of Departure. Verve Publishing, London, 2008.

[3] Curtis, Aida. Private communication, October 2020.

[4] Groff, Ed. Laban Movement Analysis: An Historical, Philosophical and Theoretical Perspective, PhD diss., Temple, 1990.

[5] Moore, C.L. The Harmonic Structure of Movement, Music, and Dance According to Rudolf Laban: An Examination of His Unpublished Writings and Drawings. The Edwin Mellen Press, New York, 2009.

[6] Koenecke, Lucas. The Maverick Gym. "The Science." Accessed Feb 2, 2024. https://themaverickgym.com/.

[7] Churchill, Winston. Speech to House of Commons, October 28, 1943. Accessed February 2, 2024. https://www.parliament.uk/about/living-heritage/building/palace/architecture/palacestructure/churchill/.