Skewed Stagecraft: Claude Bragdon’s Isometric Theatrics
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1 Song and Light

Top “Impression of Song and Light”*, 1917 (Claude Bragdon)
Bottom Photograph, Song and Light, Central Park, NY 1916.
Proscenium Arch becoming light.

Beginning in the Fall of 1915, Claude Bragdon dramatically transformed his architectural work, through theories of light, space, and the fourth dimension, by designing theatrical events and settings. His exploration, which allowed him to move beyond the limitations of client-driven architectural practice and into designs of the fourth dimension, relied on his use of isometric perspective both practically and esoterically. These projects – located in parks, traditional theaters, and at least one church - created a series of alternative theatrical performance spaces.

These alternative theatrical spaces included the Festivals of Song and Light (1915-1918) and St. Mark’s-in-the-Bouwerie (1921). Festivals of Song and Light were staged in New York State public parks, including Rochester, Buffalo, and New York City. These night-time events were transformative experiences for the participants, caught up by music and lights that embraced them as they moved through previously familiar parks. A festival in New York City’s Central Park attracted crowds of over 60,000 singing together as one body, lit by Bragdon-designed lights. Bragdon employed ‘projective ornament’ to design lamps and screens that made these familiar spaces strange, transfixing the participants as if they occupied a wholly new world. Derived from the axonometric drawing method, Bragdon’s lamp and screen designs cast a fourth-dimensional cosmic specter throughout the festival spaces. Six years later Bragdon installed
theatrical lighting as a light organ, in St. Mark’s-in-the-Bouwerie (NYC). The lighting was used to again transfix the ‘audience’ now parishioners, by invoking empathetic emotions to the services. Dr William Norman Guthrie, Reverend of St. Mark’s, used the new system of theatrical lighting to “mark emotional climaxes in the service; as stage lights are used to express the proper emotion of a scene…”

Bragdon’s festival projects were demonstrations of the theosophical concept of *involution*: perceptual/psychological involvement or entanglement with a setting that induced quasi-hypnotic effects onto crowds. These public theatrical settings embraced the audience who became participants in the performance, singing along with and then without the performing chorus. Similarly, the stage lighting organ at St. Marks provoked parishioner involution, without fourth-dimensional projective ornamentation, rather through a system of color combinations. Bragdon’s work toward initiating emotive or empathic responses to a place, situation, event recalls *Einfühlung*, the late 19th c. philosophy of empathy or projecting a feeling to or with something or someone else (Körpergefühl) as well as with space (Raumgefühl). This emotional state, enhanced through illusion, allows us to actively participate ‘with’ something beyond ourselves by projecting our ‘self’ on or into another object. Bragdon used projections (of light, isometric projective patterns, sound…) to provide situations of empathic involvement that gave participants the opportunity to project themselves into performance spaces: such as the theatrically transformed parks, church, and stage sets. His isometric projective process was integral to provoking empathic participation.
2 THREE METHODS OF GRAPHIC REPRESENTATION and USUAL AND MOST GENERALLY USEFUL INDICATION...

See Paul Emmons’s essay “On Turning the Corner to the Fourth Dimension: Claude Bragdon’s isometric perspective on a discussion of this sort of projection – quote below:

“Axonometric or parallel projection represents three dimensions in two but unlike perspective with diminution to convey depth, axonometry retains parallel lines and accurate measure. Since lines are obliquely projected, however, angles (corners) are distorted, so that right angles are represented as acute or oblique. Unlike orthographic drawings (plan, section and elevation), the primary plane of the object is not parallel to the paper, instead it is viewed from the corner of the object. The corner is an unstable location that culturally and constructively is a place of uncertainty and transgression. Bragdon capitalized on this condition in creating his esoteric views. ”

When Bragdon began designing theater sets in 1919, he used isometry to communicate his design ideas to the carpenters who constructed his sets. Isometry, he wrote, was a “useful and amusing art” that correlated “plan, elevation and section, making the whole intelligible at a glance.” Three dimensional scaled isometric drawings accurately illustrated exact spatial relationships of the parts of his set designs to their whole. Isometric perspective produced a “wholly intelligible and quite realistic picture of a stage-setting with scarcely more labor than goes to the making of a straight elevation.”

3 WALTER HAMPDEN’S SHAKESPEAREAN STAGER (FOR ANY THEATRE) devised and developed by Claude Bragdon, Architect. (8/18/1924?)

While Bragdon used isometric projection practically - to communicate the design of the set to his carpenters - he also used it to transform the way the audiences experienced set designs staged in traditional proscenium theaters. Isometric perspective gave Bragdon the opportunity to develop ingenious stage sets that transformed two-dimensional experience into three-dimensional situations that connected the audience to the actors, dissolving the division that the proscenium inherently created between audience and stage. This fourth dimensional approach to theater set design transformed the space shared by the audience and actor into a highly charged esoteric fourth-dimensional space.
Like the isometric itself, which is skewed along a diagonal so that we view into a corner, his set designs were often themselves skewed on the stage, presenting the audience with a view into a corner. This isometric view into the skewed sets broke the traditional frontality of the proscenium stage and create a dynamic view between the space of the stage and the audience. The audience was placed in a unique situation: they experienced settings by facing diagonally into a corner of rooms or spaces (the actors and action of the stage) and became part of the action. This dynamic situation also opened another corner (the audience) to the actors themselves. In a number of settings the stage set corner appeared to have both closed (as if one faced into the corner of a room) and open (as if the corner itself opened to reveal a space beyond itself.) This dichotomy of the open and closed corner, viewed dynamically, moved the audience’s into and beyond the set to join the audience with the actors during performances. Audience and actors "moved" between this imaginative space.

4. Skewed plan and isometric View into Interior Corner for 'Walter Hampden’s Production of Cyrano de Bergerac, 1932. Frozen Fountain, p.66

When the audience participated in these ambiguous situations they could flip between their own space in the auditorium and the skewed sets on stage. Bragdon played with this perceptual flip off stage as well. He included the ‘necker cube’ throughout his writings: “Sinbad finds that Man is Isometric,” a drawing included in a number of his writings, and his drawn necker cube, which concluded “Man the Square,” are the basic framework for his theatrical designs.
5 Bragdon’s Necker Cube

Other isometric projections, which appeared two-dimensional, required study and a special ability to ‘see’ the three/four dimensional ambiguous forms. However no such knowledge was necessary for the necker cube’s optical illusion -- flipping between an inside (open) corner of the cube to an outside (closed) corner and back. Swiss chrystallographer L.A. Necker described this reversible perspective cube in 1832, that he observed while studying rhomboid crystals.

“Copy of original drawing by L A Necker from “Observations on some remarkable optical phenomena seen in Switzerland; and on an Optical Phenomenon Which Occurs on Viewing a Figure of a Chrystal or Geometrical Solid”, London and Edinburg Phil Mag and Journal of Science, Third Series, Nov 1832 p.336.”

This “Necker” cube, embraced by Gestalt psychologists, became essential in the work of Escher and other optical illusionists.


Similar optical illusions appear in ancient mosaics and recent works, such as Roy Lichtenstein’s “House 1” (1996/1998). “House 1,” a large scale sculpture of the corner of a house, is built as an inside corner but painted as an outside corner. As we move around the sculpture, the corner flips back and forth between inside and outside. This flipping between inside and outside also occurs with Bragdon’s projective ornamental patterns, which he designed for his song and light lamps, other architectural ornaments, and set designs. However, for Bragdon, the back and forth was a threshold into the fourth dimension.

8 Photos “Scene from Walter Hampden’s First Production of Hamlet”
Claude Bragdon designed his first formal stage set in 1919 for Walter Hampden’s traveling production of Hamlet, who he met around 1911 in Rochester.\(^\text{12}\) For that production, Bragdon attempted to ‘flip’ between two worlds, creating dynamic corner situations that abstracted his “Hamlet” into “the meeting place of two worlds – no man’s and every man’s.”\(^\text{13}\) Photographs from that first (1919) and other productions (1925) represent AND reveal the corner situation of the set: a diagonal view into a set made up of simplified architectural elements and light: stark openings in flat wall surfaces, the edge of a full length drape, and an implied window opening.

9 Photo 1919 (Mary Dale-Clark) ‘Scene from Walter Hampden’s First Production of Hamlet from more lives than one, 1938.

The viewer/audience looks into the corner of the setting. The entire view is separated into two spaces by a diagonal path of light that enters from the upper left window. The light casts diagonally down to the opposite corner, describing a bright line that fades as it reaches the lower right corner. The lower left light-filled triangular space captures the actors and action of the stage. Above this space in the upper right is its opposite – a dark shadowed corner. The two spaces merge in the corner, which is flanked on the left by a dark standing figure (a guard) and, on the right, a door opening cut into the right wall which reveals a darkened void. The scene, as designed by Bragdon and represented in the photograph, creates a mystical and charged atmosphere that directs the audience/viewers’ gaze across and through the ‘action’ of the stage, into a dark corner that then opens into a dark, shadowed door opening beyond the corner.

Bragdon worked within a new movement of the theatre, which became known as “New Stagecraft.” This modernist approach effectively created new technological innovations that transformed the entire experience and design of theaters and theatrical productions.
10 Gordon Craig, *Hamlet 1909 (to be or not to be) and Design for a stage set*, 1924.

11 Adolf Appia (1862-1928) *Theater Space in Hellerau at the Dalcroze School of Eurythmia, (Heinrich Tessenow, architect) 1911/12  Appia’s Trisan and Isolde, Act II, 1896.*

New stagecraft developed from the work and theories of Adolf Appia (1862-1928), Gordon Craig (1872-1966), Max Reinhardt (1873-1943) and others who reconceived theater by developing new ways of creating staged performances through light, movement, and space. These artists believed that entirely new forms of theater were necessary to create authentic theatrical experience. Until then Bragdon and others developed new forms of stagecraft to work within constraints imposed by traditional theaters.

Bragdon, like Craig and Appia, designed settings that created spatial situations for acting *within* a setting or situation. Traditionally acting occurred in front of backdrops, or *flats* - painted scenery, usually perspectives, of a particular scene. Bragdon limited his set designs to basic architectural elements: walls, stairs, ramps, and light. Bragdon, like Appia and Craig, also dramatically created theatrical lighting to draw out its affective power through "color music." His set designs abstracted and simplified scenes to give the audience a closer psychic connection to a dramatic setting that was timeless, archetypical, and mystical in order to tap into human qualities which the audience might share with the characters or situations of the performance.

Bragdon was limited to working within traditional proscenium theaters. He designed settings that diffused the separation between the auditorium and stage, created by the proscenium wall. The proscenium, the wall between the stage and the audience, creates a framed opening between the audience and the actors. By looking through this ‘window’, the audience remained outside at a distance from the actors, who appeared remote from the audience and flat “like a fish in an aquarium.” In the past, the proscenium was a complex and essential link between the scene and audience but became an obstruction to the modern
designers. Bragdon designed settings that diffused the separation between the auditorium and stage, created by the proscenium wall.

Bragdon and others working in new stagecraft believed that the full depth of a performance (in terms of space, perception, emotion, action, and interpretation) was restricted by the proscenium. This separation would be dissolved by adopting radical approaches to theater design. A number of new theaters were constructed to support this new approach to theater, including designs by Appia, Walter Gropius, Max Reinhardt, and others.\(^{16}\)

12 Norman Bel Geddes Design of a new Theater “a scene from the first act of one of Geddes’ productions. 1922

Bragdon also promoted a new theater design of fellow designer Norman Bel-Geddes. Bel-Geddes theater was designed within a square plan, with the stage in a lower corner, diagonally facing the audience, which curved around the stage.\(^{13}\)

13 PLANS of Bel Geddes Theatre Number Six 1922

Bel-Geddes’s design joined the auditorium to the stage via a series of steps.

14 SECTION and Perspective Drawing showing flexible, shifting horizontally and Vertically, 1922

Like Bragdon’s set designs, the stage was very flexible, consisting of a series of platforms that shifted vertically and horizontally, and the cyclorama, the concave wall or curtain at the rear of the stage.\(^{17}\)

15 PLANS showing CYCLORAMA, lighting pit, dome of light 1922
16 Perspective Image: “Effective representation is possible on this stage completely stripped of scenery.” Norman Bel Geddes and Adolf Appia, rhythmic space
Changes in scenery could occur during brief blackouts or behind a “curtain of light” that momentarily obscured the scene from the audience.  

Bragdon, who was limited to designing within traditional theaters, hoped his designs would allow audiences to feel

“indescribable … cosmic emotion … of which a dramatic representation becomes dynamic, poignant, rhythmic, exactly in proportion as the spectators become responsive, impressionable, enthusiastic, sensitive to every emotional overtone.”

The rapport, participation, and charged atmosphere drew the audience, actor, and dramatist into “closer communion” with each other, already accomplished by the Song and Light Festivals and later by the light organ. Bragdon’s three-dimensional stage sets expanded communication and communion between the audience and actors, “enhance(d) the effectiveness of the actor,” and intensified “subjective life.”

New stagecraft removed the proscenium and, with it, scenery that represented historically and stylistically accurate two-dimensional images “painted on flat canvas and representing imagined objects, light and shadow effects.” Bragdon believed painted perspective scenery was too specific, limiting the audience’s ability to identify with a performance. The effect of these perspectival illusions set up by the scenery was destroyed by the action on the stage itself and audience’s own binocular vision - their ‘real’ perspectival perception of three dimensional space. Perspectival scenery was distorted as the actors, in ‘real’ perspective time, moved through ‘real’ space. Bragdon, and others who designed within ‘new stagecraft’ designed stage sets without painted scenery to end the disjunction between the static (painted) and real perspective that the audience experienced. The actor stepped away from flat painted perspectival
backdrops that distanced him/her from the audience and into spaces that represented “the world of solids, of three-dimensionality, by enabling him to be seen ‘in the round’; …greater freedom of position and movement: up and down, back and forth, as well as right and to left.”

Perspectival scenery was replaced by three-dimensional sets that focused on the actor. These abstracted spaces “carried to the spectator the more intangible sense of beauty of atmosphere and artistic truth.” The productions' unified effect expanded the “performance” beyond the stage and into the audience, to distort the traditional dichotomy of the audience off stage / performance on stage into an ambiguous threshold between the ‘everyday’ (audience) and the ‘theatrical’ (stage).

17 Hamlet, Curtains, Costumes, stage Set

A new role emerged: the “Artist in the Theater” who replaced the “scene painter who had devoted his life to painting backdrops in perspective … “ The “Artist in the Theater” designed entire productions as a Gesamtkunstwerk, total work of art, that enabled a play to seamlessly proceed while provoking theatrical magic. Bragdon, recalling Appia, believed the theatrical artist created the mise en scène (a French term, refers to stage setting of theatrical performances as well as the surroundings or setting of an event or an action ) as a space for the actor and the actor’s words, designing everything related to the actor: costume, props, furnishings, as

...an accompaniment to the action. ... The scenery should enrich the action in the same sense that the piano enriches the voice; it should be so good that it can be forgotten, ..., the scenery should be so designed and defined as to remain always below the actors and the action in the spectator's consciousness. ...the scenery should sink, ..., into the subconscious, in proportion to the intensity and significance of the dramatic action.
While Bragdon dismissed perspective scenery, he replaced it with his own form of isometric perspective projections. By sitting within the implied fourth corner of his isometrically designed stage sets, the audience became participants of the action, seemingly within the performance space. They inhabited the completed space of the skewed cube – sitting in one corner of the ‘set’ as the action was projected from the other ‘corner’ of the stage. Bragdon’s isometric projective system led him to make use of magic squares and magic lines in the isometric sets. As he applied his system to the skewed set designs, ornamental patterns of his isometrically designed sets magically transformed the stage into skeletons subtly fleshed out and costumed to create various scenes. He also believed that they created patterns that were devoid of historic or stylistic references yet vaguely mystical and ‘other worldly.’

18, Shifting State Sets, folding and unfolding stage sets
“The Hamlet Problem from the standpoint of the artist in the theatre in Arch Record, Jan 1926

Bragdon approached scenic design through his architecture, aligned with new stagecraft tenents, by designing a basic kit of architectural parts, the bones of the set, that transformed into a variety of scenes. One set became many settings. His design for travelling Shakespearean productions magically supported the continuous action of the play and actors, as Shakespeare originally intended: the plays were “‘[to] go forward without pause; almost as rapidly as a moving picture …’” with minimal change and interruption. For example, the previously discussed design for Hamlet remained essentially the same while subtle additions to its basic ‘bones’ dramatically altered each scene.

19, Hamlet 1919 for Walter Hampdon
Top: Churchyard; Middle : Room in Castle; Bottom : Elsinore, Act 1

Low angled walls, three sets of stairs, two platforms, a dark opening cut into one wall and the rear cyclorama changed from starry night to black interior, to
morning sunrise. The play began with an unadorned platform before Elsinore. [BOTTOM] The castle is glimpsed from the side rather than from the front (as Shakespeare suggests), as we look past the castle, up various platforms, and into a black starry night sky. It is midnight as the play begins with a lone guard, waiting to be relieved and the sighting of the ghost. The next scene, a room in the castle, the exterior becomes interior with additions of columns, drapes, chairs, table, and thrones. The starry night sky is now impenetrably black [MIDDLE] Once again, we view through the setting: a side-view of thrones, up central stairs, through the columns, and into black void beyond the room.

19 TOP and FIG 20 Churchyard – perspective and section

The basic set changes again, into a churchyard/graveyard. Bragdon’s rendering includes silhouetted trees and bushes on various side platforms. A central naturalistic platform covers the central stair, grave stones, a shrouded figure, and the door opening all to create somber space for the clowns/grave-diggers. Again, our view moves dynamically through the setting, toward the horizon where a light sky meets land or water. Each scene shifts character yet maintains the same dynamic horizontal view that draws us up and beyond the space of the stage.

21 LIGHT OF ASIA 1927: prologue and basic permanent stage set

Permanent sets also transformed their scenic character. In his design for “Light of Asia” [1927], one permanent set transformed into six different scenes. The ‘bones’, a series of steps and platforms provided a variety of entries, exits, and acting levels that easily shifted “characters” (from one scene to another) when curtains, groundrows, back drops and props were rearranged – essentially dressing the “bones” of the basic set into different scenes.
**22 SIX separate changes of Light of Asia, 1927 shown for the 6 (or 9?) scenes, 100 characters 7 separate entries/exits, 4 different acting levels…**

This “makeshift’ quality of design built in an adroitness that adapted to any planned or serendipitous actions, or “happy accidents” of a performance. 40

Bragdon believed that the set itself was a ‘magic square’ as the ‘bones’ of the design were “free of associations with anything other than themselves.” 41 The secret of the magic square/magic line, revealed as ornament or pattern, clothed the stage set. Yet, while the magic square constructed the *garments* (patterns and ornaments) of the settings, the ornaments projected a magical dimension onto the scene: two dimensional constructs derived from three dimensional translations of points in spaces (connected by lines) the projection produced a fourth ‘dimension.’42 He evoked the mystical system of ornament derived from the fourth dimension and realized through isometric projection – or projective ornament. Magic squares and the fourth dimension were “beautiful bones for any garment of flesh,” whose ‘decoration’ had the “quality of unrelatedness … which no eye has ever seen – heaven, fairyland, the kingdom or dreams, the fourth dimension. … avoiding some betrayal of the mind through memory…intrusions of forms or details associated with some one of the historic styles, bringing the imagination suddenly to earth, like a bullet through a balloon.”43

When he began to work on traditional stages, Bragdon worked between two and three dimensions while allowing the audience to participate in the fourth dimension. He developed unique theatrical sets, stepping into new stagecraft that was introduced to American audiences before 1912, embracing the work of Craig and Appia, and joining the ranks of designers, such as Bel Geddes, Robert Edmond Jones, Lee Simonson and others.44 Yet Bragdon designed set designs that created magical illusory worlds, that maintained a sense of reality. His reality was more than a pragmatic by-product of functional use-related movement.
23 Merchant of Venice and Romeo and Juliet both 1925.

Rather he believed that the reality of space was

… not alone as room to move ponderable bodies in, but as room to think, to feel, to strike out in unimaginable directions, to overtake felicities and knowledges unguessed by experienced and preposterous to common sense. Space is not measurable: … The so-called dimensions of space are to space itself as the steps that a climber cuts in the face of a cliff are to the cliff itself: they are not necessary to the cliff, they are necessary only to the climber. Dimensionality is the mind’s method of mounting to the idea of the infinity of space. When we speak of the fourth dimension, what we mean is the fourth stage in the apprehension of that infinity…

This “sense of space” resided in the fourth dimensional world of the stage. Bragdon, who tapped his theoretic/architectural theosophic beliefs to design stage sets created a truly new stagecraft – one that shared the ideas of Craig and Appia yet was distinctly unique. Both audience and actors participated within this space of imagination, bridging the separation between stage and audience through his own new stagecraft. Bragdon, more than any other artist of the stage, designed settings that instilled his idea of the fourth dimension. His sets provided both functional and immeasurable space: the space that audience and actors moved both through and within the theater itself – while mounting the space of a theatrical cliff.
LIST OF SLIDES

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Bottom Photograph, Song and Light, Central Park, NY 1916.
Idea to be further developed in a later paper: Proscenium Arch becoming light.

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12 Norman Bel Geddes Design of a new Theater w/ scene from the first act of one of Geddes’ productions. 1922

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1 "Review 3 " The Dial… October 4, 1919, pg.5.
4 Etlin,1-2.
5 Gardiner,200-204. This philosophy was developed by Wilhelm Wundt, Heinrich Wölflin and others.

9 Claude Bragdon, “Isometric Perspective”, 68-69. [ibid?]
Bisiach, et al.
Bragdon, April 5, 1919.
MLTO 227
Bragdon studied color and light for over 40 years of his life, developing a theory of “color music” by applying esoteric Theosophical studies to music, time, and mathematics.
Appia created the Volksheim in Hellerau, designed by Heinrich Tessenow (1911/12), Gropius designed the unbuilt Synthetic “total theater (1926), and Max Reinhardt a number of theaters, including the Kammerspiele (1906, Berlin).
A cyclorama is a concave wall or curtain to the rear of the stage.
MLTO, 238-239.
Appia, 1989, p.77.
Bragdon, “Towards a new Theatre”, p.171
Cheney, 20.
Appia, 1989, p.42.
Eugenia Ellis, personal undated comments..
Bragdon illustrated eight different scenes from Othello developed from his basic Shakespearean set, which he designed for any stage. Bragdon,”Producing Shakespeare As Illustrated by Walter Hampden’s Production of Othello”
Bragdon,”Producing Shakespeare As Illustrated by Walter Hampden’s Production of Othello”, Architectural Record 57 (March 1925), 267.
“The Technique of Theatrical Production “(109 – 122)
Claude Bragdon, “They were happy accidents”, pp.20,56, 58 ; MLTO, 190-193.
Claude Bragdon, MLTO, 168.
His pattern for the play "Oh Lady, Lady!" was tied to “musical and rhythmic” settings, similar to Appia. Bragdon, “Art and Arithmetic,” 170.
“A Youth the Wizard of new Stagecraft”,1912; Corbin, 1918.
Claude Bragdon, Four-Dimensional Vistas,22-23.