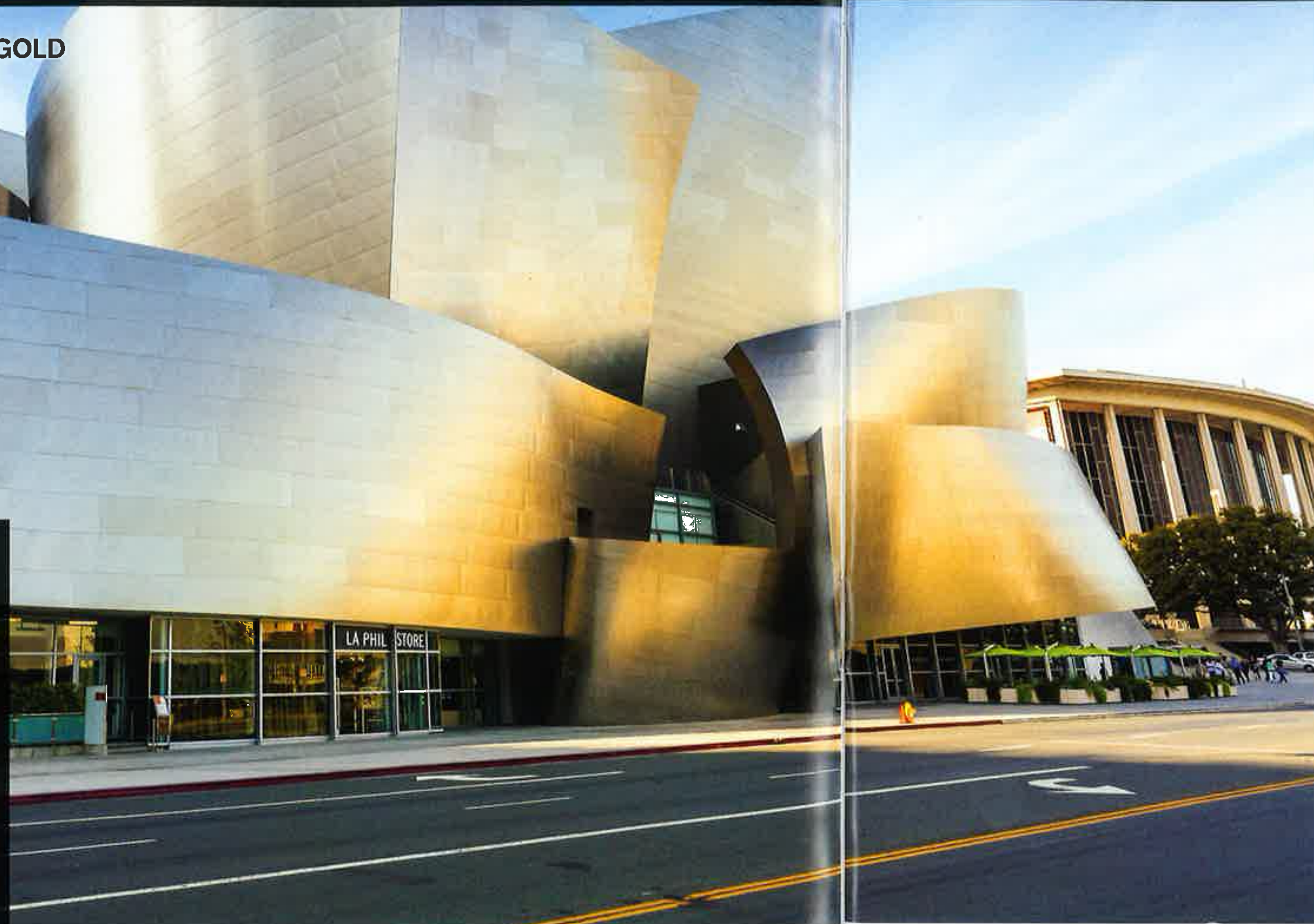
Significant Modern Theatres: Disney Concert Hall

BY CARL GIEGOLD



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Frank Gehry's iconic creation traces the path of a powerful idea through the improbable landscape of ego, finance, and politics

TD&T discusses the Disney Concert Hall in this issue as part of its multi-year research collaboration with *Bühnentechnische Rundschau*, the journal of the Deutsche Theatertechnische Gesellschaft (Germany's Theatre Technical Society) and *Sightline*, the journal of the Association of British Theatre technicians. Under the auspices of this project, noted specialists in theatrical architecture are producing an ongoing series of articles celebrating and re-examining some of the most significant theatres that opened between 1950 and 2010. The project is led by David Staples, chairman of Theatre Projects Consultants in London and ITEAC (International Theatre Engineering and Architecture Conference) editorial board chair, in advance of its inclusion at ITEAC 2018 and in *Modern Theatres 1950 – 2010.*

"There is no 'there' there" wrote Gertrude Stein in the 1930s. Her lament about the lost Oakland neighborhood of her childhood took on a life of its own over the next several decades, becoming a broader statement about the nature of mid-century California as a whole and perhaps Los Angeles in particular. In the mid-1980s, Los Angeles (LA) was looking for a defining architectural landmark (one for the present day) at about the same time that its home team, the Los Angeles Philharmonic, was readying to remake itself artistically and awakening to the realization that its home venue was not up to the task. The emergence of the orchestra as a force for new music was concurrent with the design and construction of its new hall, so their stories are best understood when told together.

In the 1860s, Bunker Hill, in LA County, was a largely empty promontory, more of an obstacle to development than an invitation to it. Too steep to climb, it took the construction of the quaint Angel's Flight funicular to make it attractive to the moneyed. The neighborhood's rise in society was similarly steep, its Victorian peak rather pointed, and its decline into disrespectability slow and relentless. By the mid-1950s, it was slated to go. In a particularly virulent spasm of urban renewal, the demolitionists didn't stop at the buildings but instead kept going until the entire hill had been reduced to more of a mound. A living neighborhood was thus transformed into... not much, but the blank slate at least offered an invitation.

At the time, the LA Philharmonic was laboring away in Philharmonic Auditorium, which was definitely more the latter than the former. Dorothy Buffum Chandler—Stanford-educated, heir to a department store fortune, a director of the LA Times Mirror Company, and a formidable personality in the LA arts community—saw the need for a better place. She led the charge up the depleted hill to top it with Los Angeles Music Center in 1964. The LA Philharmonic and the newly formed LA Master Chorale took up residence in the new facility.

The Music Center was a great leap forward for LA's musical life, but comparisons to Lincoln Center were hard to avoid. It simply didn't present itself as something distinctly of its place, and the multipurpose pavilion that bears Chandler's name was never really up to the task of delivering orchestral sound to its audience, or even its orchestra, especially not one that would soon be ignited by a sea change in its executive and artistic leadership. Even before Esa-Pekka Salonen's arrival as music director, discussions had begun about the Music Center's missing link—a concert hall to serve as a proper home for the Philharmonic, the Master Chorale, and the still-new smaller ensembles, for which Chandler would have been grossly unsuited in acoustic as well as architectural intimacy.

In 1982, Ernest Fleischman, another powerful personality, began his tenure as general manager of the LA Philharmonic, bringing a different idea about the nature of the orchestra as an organism. The title of his 1986 commencement address to the Cleveland Institute of Music speaks volumes all by itself: *"The Orchestra is Dead. Long Live the Community of Musicians."* The LA Philharmonic's Chamber Music Society and New Music Group with its "Green Umbrella" concert series had both already been established, drawing from the Philharmonic's community of musicians and pointing it in a decidedly new direction. Salonen made his debut as a guest conductor in 1984 at the age of 26, and his chemistry with the musicians was immediately apparent. Alex Ross of *The New York Times* years later spoke of "an individual and an institution bringing out unforeseen capabilities in each other." He was designated principal guest conductor in 1989 and became music director in 1992. The Philharmonic and Master Chorale were now flourishing as top-flight ensembles with new music in their core missions, distinctly different from the orchestras of the East Coast, but fettered by a venue that neither conveyed this adventurous bent nor delivered a satisfying experience for the musicians and audiences who gathered there.

In 1986, Lillian Disney announced her seminal $50 million gift toward the construction of a concert hall to be named after her late husband. The gift was expected to cover nearly all of the cost of the hall itself under the assumption that the county would separately fund construction of the parking structure beneath the concert hall and its surrounding plaza. Frank Gehry, seemingly against all odds, won the ensuing design competition over Gottfried Böhm, Hans Hollein, James Stirling, and Michael Wilford. The commission was truly a surprise to Gehry—Chandler herself had personally assured him that he wouldn't win, and she had veto power over the selection. The choice acknowledged that Gehry, the only local contender, was steeped in LA's arts scene, had already become an advocate for the musicians, and deeply understood Lillian Disney's objectives and sensibilities. Tokyo's Nagata Acoustics was selected as acoustician, and Theatre Projects Consultants was commissioned for theatre planning and engineering.

Inspiration and Collaboration

Fleischman advocated what was considered the more democratic "vineyard" seating arrangement that places the stage more toward the middle of the audience than at the end of the room. The vineyard was pioneered by the acoustically revered Berlin Philharmonie, a truly seminal hall that had opened in 1963 designed by architect Hans Scharoun and acoustician Lothar Cremer. In contrast to the rather rigid social hierarchy implied by the shoebox form with many

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of the seats distant from the action and/or overhung by balconies and side galleries, Berlin put everyone out in the open and, on average, closer to the platform. This resonated with Fleischman's community of musicians, gathering the community of audience more closely around it. Skilfully done, it had the potential to create a community of the whole.

Nagata's acoustic work across Japan was well known to the Western musicians and conductors who had toured there in the '70s and '80s. Tokyo's Suntory Hall in particular had garnered notice for a lush sound in what is basically a rectangular room widened to increase the number of seats flanking the platform (and with a ceiling lifted almost verbatim from Berlin). The architectural idea was rendered in a more refined and organic manner in Sapporo's Kitara Hall, with substantial audience areas flanking the stage and a much-reduced distance to the farthest seat. The two rooms constituted a train of thought compatible with Fleischman's democratic community of music. Yasuhisa Toyota was designated the lead designer for Nagata.

"In the design of a concert hall, the acoustician lays down the rules and the designer then struggles to make architecture of his instructions," a statement perhaps playful, perhaps abject (perhaps both) that could have been made over the last 60 years by any one of a number of architects exploring the concert hall form. These are Gehry's words, spoken in the context of Disney Hall. While a more satisfying aspiration might be a side-by-side exploration of aesthetics that are visually and acoustically symbiotic, Gehry's words do convey the oft-troubled 20th century relationship between architecture for the ear and that for the eye. While there are wonderful examples to the contrary, the stereotype persists.

Indeed, the ebullient forms of Gehry's exterior are not entirely at peace with the voluptuous rigidity of the concert hall's interior. "Whatever Toyota wants, do it," Gehry, again. Influences from Nagata's earlier work in Sapporo are far more visible in this interior than Gehry's, but then this was their first collaboration. The delightfully jumbled geometries of the rehearsal spaces in Miami's New World Center, which opened in 2011, suggest an architect and acoustician much more comfortable in their relationship. One can imagine wariness in LA's collaboration growing into friendship in Miami's.

Construction Challenges

Design and construction were not destined to go smoothly. The construction challenges of the form were clearly substantial, and the roll-out of CATIA software as a tool for complex architectural forms was fraught (it was developed by France's military for the design of aircraft). Seismic requirements changed following the Northridge earthquake, complicating the structural design process. Delay-induced inflation took its toll. By the summer of 1994, the expected cost had more than tripled (the parking structure funded by public bonds was another $100 million still), the private funds simply were not there, and trust amongst the strong wills within the project team was at a low ebb. LA County halted the project, and it would be four years before enough had been raised to restart construction. In the interim, Eli Broad, chairman of the Disney Hall oversight board, questioned Gehry's ability to complete the project. Gehry wrote a letter of withdrawal from the project. Lillian Disney's daughter, Diane Disney Miller, intervened to ensure that Gehry remained, reaffirming the Disney family's commitment to both the building and its architect.

As if in defiance of this turmoil, the Philharmonic and the Master Chorale continued to advance professionally and artistically with Fleischman, Salonen, and Paul Salamunovich (of the Master Chorale) in charge. Salonen's *L.A. Variations* premiered about halfway through the delay. The composition, dedicated to and showcasing the Philharmonic's own musicians, might be construed as a pointed question about the fate of the dormant construction site right next door. The energy of the ensembles was undeniable and only reinforced the imperative for a building of the same calibre, surely playing a role in propelling the project past all of its obstacles.

The hall was finally completed in 2003 at a cost of $274 million (including the garage), following a six-month commissioning period in which the orchestra adapted to the profoundly different acoustics of its new home. Opening night was a triumph, having built upon the musicians' enthusiasm about the hall and their delight with the extent to which the design team had accommodated their day-to-day life in the building, not just their moments on the platform.

One has to admire the simple confidence of Disney's completely fixed volume with the barest scraps of variable absorption in the upper corners of the room to the heroic variability of reverberation chambers and concrete overstage canopies found in halls such as Verizon, Myerson, and Birmingham—variability that, in some cases, challenges institutional memory as operational personnel come and go. The fixed volume avoids the challenge completely.

'All of Us Together'

In designing the Philharmonie, Scharoun discussed the gathering of musical audiences in circles "as at all times"—the central performer surrounded by an appreciative audience found in all manner of images captured through paintbrush, pen, and camera over the ages. The ready assembly of onlookers in a circle around a street musician is evidence enough of the naturalness of the relationship between artist and audience.

In fact, one can make the case that the structural limitations of masonry, timber, and wrought iron led concert halls of the 18th and 19th centuries to grow longer rather than wider as orchestral music grew in popularity and audiences grew in size, forcing a departure from the natural circular relationship as the last rows grew increasingly distant from the performers. Unfortunately for the traditional circle, composers had the acoustics of these longer, narrower rooms in their minds as they worked. In essence, the music and the shoebox grew up together, and much of the classical canon relies on the narrowness of the shoebox for the music to be heard as the composers heard it.

Berlin's platform is well toward the center of the room, but the circles are rendered in straight rows arranged in rather jagged, tectonic plates. While the audience is indeed arranged around a platform, the circles Scharoun sought to evoke are most readily seen by those charitably inclined to see them.

By contrast, the seating geometry of Disney evokes the circle almost literally, with a sense of embrace that offers a view not just across the hall but also of one's neighbors a few seats down the row. From most places in the hall, it is easy to feel a part of the concentric gathering around the performers, and the effect is warm, social, and satisfying.

Disney's acoustics are well-regarded. Nagata's emphasis on early energy—

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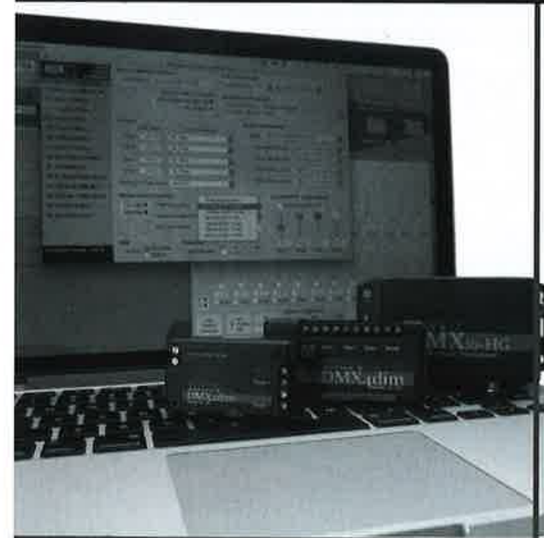

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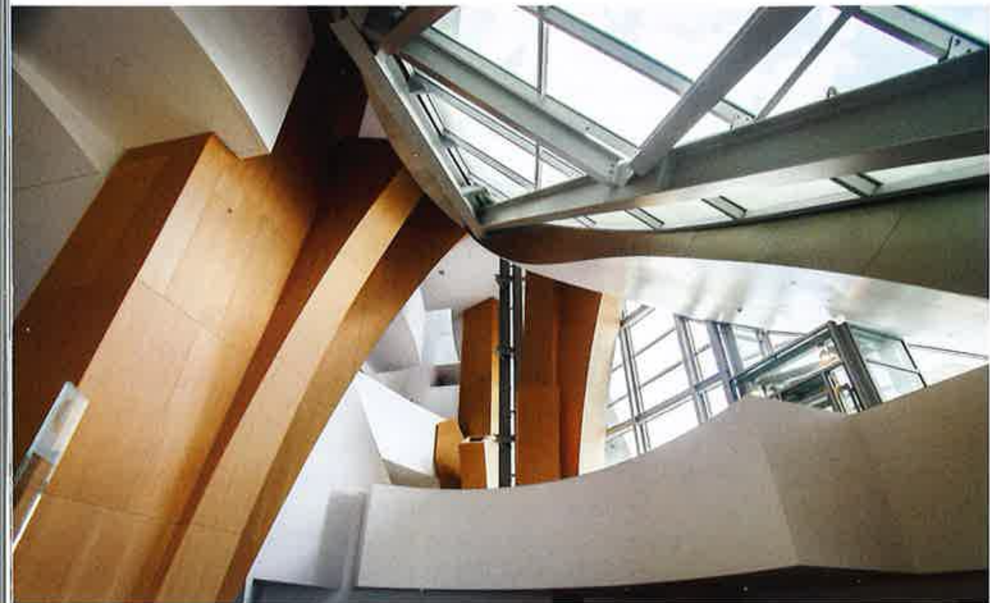

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the earliest reflections to arrive after the direct sound along the line of sight—are well-documented. "He had one rule," says Gehry partner Craig Webb: "Within 80 milliseconds after the concert sound first hits your ear, you need to hear three reflections off three different surfaces of the hall." The hall's ample acoustic volume yields the required reverberation even though that reverberation is not particularly lush by the standard of the shoebox, but the clarity and transparency resulting from this attention to the earliest reflections yielded acoustics particularly favorable to ensemble—the ability of performers to hear each other and themselves while bathed in the whole of the orchestra's sound. Transparency and clarity also lend themselves to the musical detail of the late 20th and early 21st centuries, music in which the LA Philharmonic chamber and Green Umbrella programs is a powerful compositional and performative force.

Anecdotally, visiting musicians citing the hall as a favorite place to play sometimes make the distinction between Disney's acoustics and the experience *in toto*, with the highest compliments reserved for the latter. This bears emphasis: an "all of us together" experience that celebrates the performers and audience as a community transcends the "us and them" experience of a traditional shoebox, precisely Fleischman's goal. The designers did not emphasize recreating shoebox acoustics in a vineyard but instead created a venue for musicians and audiences in which the acoustics are allowed to depart from the norm in service of a compelling overall aural/visual/social experience. Disney is not the first to do this, but its excellent sound in an environment that captures such a strong sense of communal experience makes it a benchmark building for projects seeking the same ends.

On the other hand, it is difficult to control a complex form sufficiently to deliver the mandated three early reflections without also delivering unwanted ones elsewhere in the room. For example, from certain vantage points, solo piano is troubled by reflections either too late or from confusing directions. Further, the reflection structure of a room looks entirely different when the source is a loudspeaker 25 feet in the air rather than a musician seated down on the platform. The walls and soffits that serve the orchestra so well, and the lack of retractable absorption to tame the most difficult of them, make the room difficult for amplification. As amplified sound plays a greater and greater role in the life of rooms for orchestra, do such designed-in difficulties do the room a disservice?

In fact, this shortcoming points up a central conundrum of the vineyard form: the grouping of audience around a central stage while embedding surfaces critical to the orchestral experience within that audience vastly complicates the delivery of high-quality amplified sound throughout the audience. There is not yet a vineyard that has mastered the challenge, leaving some ground for further exploration and refinement.

Disney nevertheless seems an excellent fit with its resident ensembles. The LA Philharmonic's debut in the building was triumphant (and a testament to allowing an orchestra sufficient time to adapt to the sound of its new building before opening night). The hall has proved a crisp, clear environment for new music offerings, and it presents itself as an example of the power of a distinct experience of music that draws from the primal form of gathering while celebrating acoustics that depart from the traditional.

As part of the package, LA got its "there." The Music Center was long established as an arts venue, but Disney gave it an iconic architectural identity and demonstrated LA's commitment to architectural exploration for LA's own sake, catalyzing the further development of an extraordinary arts campus. It gave one of the country's most prominent and accomplished orchestras a venue of equal caliber and arguably consummated the Philharmonic's generational transition from the age of Mehta and Giulini to that of Salonen and Dudamel. It traces the path of a powerful idea through the improbable landscape of ego, finance, and politics. And in its success as a place, it makes us think differently about the future of performance space architecture.

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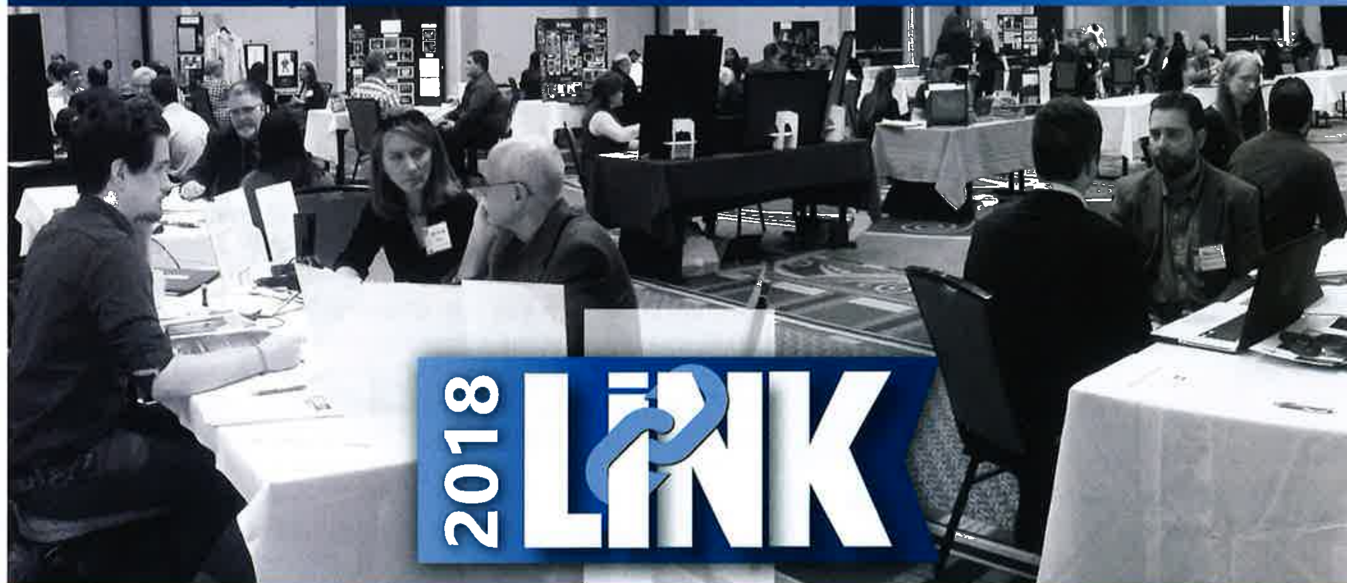

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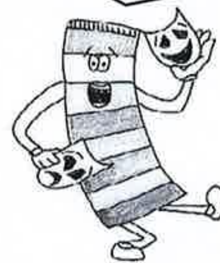

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