

## Crescents

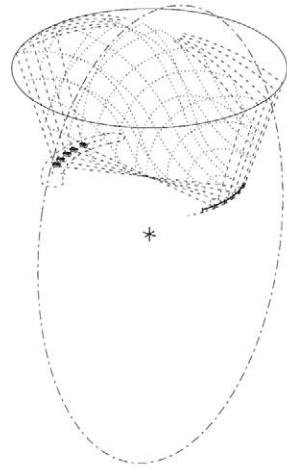
Raviv Ganchrow

When stepping into the vast hydroplane hangar on Tallinn's northwestern coast, ones attention is immediately drawn to the presence of echoes producing a complex audible patterning. Within the space of a few paces, the steady sound of footsteps shifts from focused rhythmic repetition to dispersed spatial patter, at times even seeming to rotate within upper reaches of the domes. The structure, originally commissioned by Tsar Nicholas II of Russia in 1907 as part of a fortification plan on Tallinn's coast, was considered one of the world's largest reinforced concrete shells upon completion. The construction incorporates three large domes, each of which is a portion of a sphere 60 meters in diameter, creating a single-span hall originally intended to accommodate long-winged bomber aircraft. The immense scale of approximately 50 meters by 100 meters, and a height of just under 22 meters from floor to apex, coupled with the acoustic properties of smooth concave surfaces—that act upon sound as a reflective converging lense—creates the conditions for the hangars unique sonic characteristics.

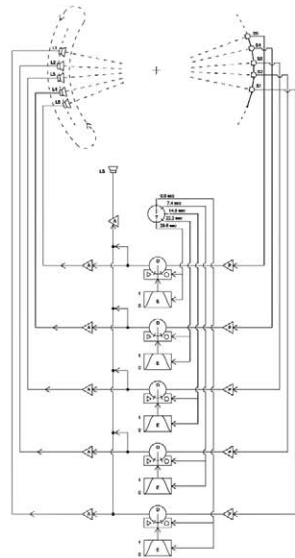
At the surrounding waterfront there are also echoes of another kind: murmurs from defunct regimes and receding maritime threats. Signals that are more visual in nature or possibly imagined but none the less palpable. The hangar itself has endured this cacophony for nearly a century, maintaining its function as a military facility throughout the various changes of hands up until the latest developments where under a broader urban renewal plan the building is designated to become a maritime museum.

Curiously, after the appearance of demolition cranes at the hangar in the spring of 2010, at least one aspect of the site has proved resistant to adaptation. It is the displacement of that which is itself mobile—precisely the echo. Even after all the perimeter walls had been removed, opening an unobstructed panoramic view of the harbor, the echoes somehow remained intact, stubbornly clinging to the concavity of the domes. Once the building was reduced to its skeletal components, the disjunctive overlapping of a visually open expanse on top of a cavernous aural interiority turned out to be unsettling to such an extent that even the birds, I was told, modified their flight paths to avoid transiting beneath the building canopy.<sup>1</sup>

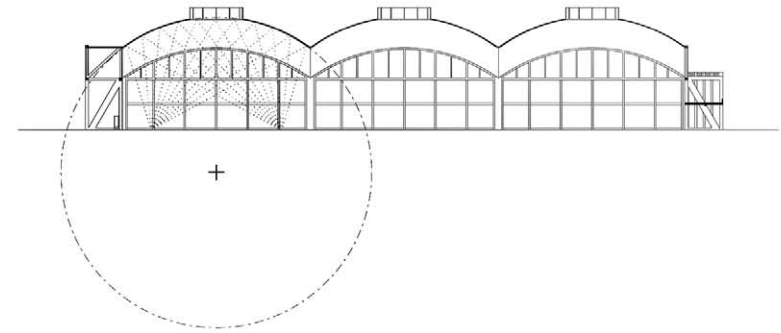




*Sound circulation study for Crescents indicating relations between the dome structure, scaffolding mounted vibration sensors and loudspeakers.*



*Crescents, implementation diagram of recursive transmission / reception loops for live ambient sounds.*



*Focal properties of the spherical dome at the Tallinn hydroplane hangar. Sectional sound reflection study for a single impulse wave emitted along the geometric caustic at ground level.*

It is at this fragile moment in the evolution of the site, suspended between a just-after and moment-before, that the location is potentially at its most poetic, as it speaks of so many voices that are either inaudible or yet to find their vocality, all the while providing response to a diversity of inquisitive listeners. It is also precisely this ambiguity of character and possible networks of meanings that serves the backdrop of *Crescents*.<sup>2</sup> The work borrows the monolithic geometry of the existing structure as a harness for a series of movements in sound that aim to thicken and draw-out certain inherent relationships. Starting with subtle ambient sounds of the location, the piece circulates these sounds, first spreading them out across an array of loudspeakers, then into the hall, reflecting and focusing them off the curvature of the dome back into an arced armature of scaffolding that itself is miked back to the loudspeakers. The slow, recursive process sets off an accumulation of time-delayed reflections that manifest a series of arced resonances between properties of sound, the structure of the hangar and arranged remnants of the location.

*Echo*

An echo is not so much a property of sound as much as it is an indication of our ability to hold on to bundles of experience, to circulate memories and construct meanings from those circulations. When lending an ear to the vast expanse of rebounding signals, it is not the sense of that expanse to which we are listening but rather to the fragile crust of sense itself. This has something to do with a melancholic aspect of listening where comprehension always comes at the expense of the very continuity to which we are attentive and where every attempt at a more inclusive listening only reaps an even greater number of discernable contours and descriptive characteristics. But this simple fact becomes a poetic strength when it comes to our capacity of listening to 'places' as the balance in a location is always situated on the teeter between 'self' and 'surroundings'. It is under this definition of *spatial character*—all those moments where singularities emerges from within an undifferentiated expanse—that audible sound is neither more nor less constructive than the other solid obstructions, luminosities or odors making up our terrestrial locations. Sound and its reflections are just other indicators for the innumerable matrix of forces, interactions and relations that together with the act of observing *are* the site. And all those descriptive elements such as tectonics, landscapes, colors or even events and their resounding echoes are all but phantom folds in the wake from a roving vehicle we call 'place'.

1 This observation was made by the artist Lukas Kühne, to whom I am indebted for his assistance, patience and companionship during the long hours of experiential research and installation at the hangar.  
 2 *Crescents* was realized in collaboration with Carsten Stabenow and the Tuned City team on the occasion of the Tuned City Tallinn preview, May, 2010.

