

# Augmented Spatial Mediators of Late 20<sup>th</sup> Century and their Impact on the Realization Process of the Smooth Space in Architectural Discourse: Fresh Water Expo Pavilion Case

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**Abstract:** With the rising influence of digitalization and its immense penetration into even everyday life, the last decade of the 20<sup>th</sup> Century addressed to a critical threshold in the successive transformation process of the spatiality in its long-term run. The advanced digital technologies of ubiquitous computing and generative design, as well as the invention of smart materials in late 90's (particularly the nano-technological materials that emerged as the programmable matters with their ability to evolve continuously) have all provoked the fluid characteristics of spatiality, and strengthen the transformative capacities of the architectural space through the emergence of computer-augmented territories. Additionally, while they are becoming as the body extensions, the advent of novel apparatuses and gadgets further enhanced the integration of the corporal and incorporeal bodies with the spatio-temporal multiplicities, where the hyperdimensionality of the space has been triggered to its outmost range, in relation to the "soft and smart technologically augmented immanent millieu", in Spuybroek terms. Thus, like Spuybroek points out as the "haptonomist" presence of the body merges itself with these diverse bodily extensions on one hand; and on the other hand, as the rising influence of nomadic view of the world further stimulates the unboundedness and endless fluidity of space, so that the spatiality becomes a landscape of successive transformations, a topology of emergence or a plane of becoming, which is merely defined by lines of forces, and occurs as an *alive territory* rather than a limited space of predefined borders. Therefore, this evolvable *territory* which is affectable and being affected by the *lines of forces* –inner and outer forces–, emerges as an animated existence, an interactive organism. So, by interacting with the Deleuzian Philosophy and their notions like *lines of forces*, *folding*, *becoming*, *smooth space*, *territory*, *spatium*, this article aims to reveal the relevance of these notions in architectural discourse, as well as the emergence of the smooth space in the contemporary architectural practice, by magnifying one of the very initial examples of its kind; in terms of unfolding the Fresh Water Pavilion

of NOX Architecture by Lars Spuybroek into question to reveal the essences of the contemporary transformable-evolvable architectural spatiality.

Keywords: Space as a Becoming, Deleuze, Augmented Space, Fresh Water Pavilion, NOX Architecture

The outside is not a fixed limit, but a moving matter animated by peristaltic movements, folds and foldings that together make up an inside: they are not something other than the outside, but precisely the inside of the outside

Gilles Deleuze, *Foucault*<sup>270</sup>

## § 1. Introduction

With the increasing influence of digitalization and its immense penetration even into everyday life, the last decade of the 20<sup>th</sup> Century addressed to a critical threshold in the successive transformation process of the spatiality in its long-term run. The advanced digital technologies of ubiquitous computing and generative design, as well as the invention of smart materials in late 90's (particularly the nano-technological materials that emerged as the programmable matters with their ability to evolve continuously) have all provoked the fluid characteristics of spatiality, and strengthen the transformative capacities of the architectural space through the emergence of computer-augmented territories. Additionally, as becoming body extensions, the advent of novel apparatuses further enhanced the integration of the corporal and incorporeal bodies with the spatio-temporal multiplicities, where the hyperdimensionality of the space has been triggered to its outmost range, in relation to the "soft and smart technologically augmented immanent milieu"<sup>271</sup>.

270 Deleuze, Gilles, *Foucault* (1986), London/New York: Continuum Books, 2006, pp. 96-97.

271 Cf. Spuybroek, Lars, "Motorische Geometrie" ("Motor Geometry"), in: *Arch+*, No. 138 (1997), pp. 67-75 (available on <http://www.archplus.net/home/archiv/artikel/46,503,1,0.html>; last visit: July 10<sup>th</sup>, 2015).

Thus, like Spuybroek points out as the “haptonomist” presence of the body merges itself with these diverse bodily extensions on one hand; on the other hand, as the rising influence of nomadic view of the world further stimulates the unboundedness and endless fluidity of space<sup>272</sup>, so that the spatiality becomes a landscape of successive transformations, a topology of emergence or a plane of becoming, which is merely defined by lines of forces, and occurs as an *alive territory* rather than a limited space of predefined borders. Therefore, this evolvable *territory* which is affectable and being affected by the *lines of forces* –inner and outer forces–, emerges as an animated existence, an interactive organism.

Doubtlessly, like Deleuze and Guattari discuss, “this” novel spatiality emerges as a smooth, transformable space of affection, that comes into being under the influence of inner and outer forces<sup>273</sup> acting upon it. They define this space as “(...) a space of contact, of small tactile or manual actions of contact, rather than a visual space like Euclid’s striated space”<sup>274</sup>. Like they also mentioned, being as the space of smallest *difference*, homogeneity would no longer exist, but only the linking of the proximate points are essential in the formation of the paths<sup>275</sup>.

On the other hand, the penetration of more sophisticated devices of ubiquitous computing into the space in general terms have further influenced the generation of these novel spatialities, which depend on more complex synchronized experiences involving multi-modal (push and pull) interaction, so that spatial embodiment could perform endless possibilities of *events* through maintaining the ever-imagined correlations between the virtual and the actual. Therefore, unakin to the *passive synthesis of virtual procedures*, the novel spatiality emerges

272 Cf. *ibid.*, p. 67.

273 Referring to statements of Stanford Kwinter (cf. *Architectures of Time: Towards a Theory of Event in Modernist Culture*, Cambridge, Mas.: MIT Press, 2001): space, as a unity of time and force –the immaterialized spatiality, exists in various extents from virtual to real, goes under the [trans]formation of active and passive forces of all related parameters either in micro or macro level –considering economy, socio-politic, physical/biological, technological (materials, tools, innovations) as well– that further define the existence.

274 Deleuze, Gilles and Felix Guattari, *Thousand Plateaus (Mille Plateaux. Capitalisme et Schizophrénie*, 1987), London/New York: Continuum Books, 2004, p. 409.

275 Cf. *ibid.*

from open-ended *active synthesis* of augmented *interactive procedures* of both the virtual and the actual.

So, like Burry mentions, with its “pre-” and “post-” becomings<sup>276</sup>, this ever-evolvable spatiality could also be described in relation to the notion of *metastability*, and appears as a “delicate balance between forces from within and forces from without” that both are “sculpturing” the flow of information that defines the temporal-spatiality<sup>277</sup>. Since these force fields appear as the sources of the “information flow”<sup>278</sup> or lines of forces, the novel architectural embodiment becomes a “vectoral body” that could be “stretched in a particular direction” or expandable into further territories<sup>279</sup>. Thus, in the contemporary realm, the “(...) design process [could be] perceived as a transaction (...)” where/through which the architectural embodiment becomes a *transaction milieu*, “facilitating transaction between the users and their immediate environment”<sup>280</sup>.

In this regard, Fresh Water Pavilion project of NOX Architecture by Lars Spuybroek has been asserted as the critical step in terms of addressing the initial phase of augmented space and the affect of ubiquitous computing in the emergence of spatial becomings.

## § 2. The Fresh Water Pavilion

Fresh Water Pavilion was designed within the framework of the “Water Pavilion Project”, which was commissioned by the Ministry of Water Management and Delta Expo in year 1993, by being as a private-public partnership and constructed in Zeeland, the westernmost province of the Netherlands, in 1997. The initiation was split into two design teams, so that Lars Spuybroek and NOX Architecture was responsible of building the Fresh Water Pavilion (Figure 1),

276 Cf. Burry, Mark, “Beyond Animation”, in: *Architectural Design (Special Issue: Animation and Architecture)*, LXXI, No. 2 (2001), pp. 6-16.

277 Cf. Oosterhuis, Kas, *Towards a New Kind of Building: Tag, Make, Move Evolve*, Rotterdam: NAI Publications, 2011, p. 105.

278 *Ibid.*, p. 104.

279 Cf. *ibid.*, pp. 98-99.

280 *Ibid.*, p. 140.

while at the same time Kas Oosterhuis –again another Dutch architect– was responsible of building the sea water half of this “Water Pavilion” Project<sup>281</sup>.

Like Spiller mentions, Spuybroek’s work focuses more on the “interrelationship between real and virtual space and the phenomenology of simply being in and alive in the world”<sup>282</sup>. Spiller defines the pavilion as a synthesis of materiality and immateriality, and also highlights that the categories of real vs. virtual, as well as material vs. immaterial are not opposing categories nor “metaphysical disagreements” of the design ideology, but in fact they are “(...) electroliquid aggregations, enforcing each other, as in two-part adhesive (...)” and keenly proposing “(...) metastability to induce animation”<sup>283</sup> throughout the pavilion. Spiller further acknowledges that the interior environment of the pavilion that Spuybroek has generated was a liquid unity that successfully merges “hardware, software and wetware” all together, and “(...) the design of the interactive installation was based on the metastable aggregation of architecture and information”<sup>284</sup>.

In addition to these, Spuybroek also mentions that without detaching “architecture from the exhibition” and “form from information”, the pavilion was designed as a “medium”, where the “material form [was] directly related to the movement of the visitor”. Therefore, basically the connection of “behaviour of human beings [the visitors] to the behaviour of the building system”<sup>285</sup> was the driving concept of the pavilion design. Thus, creating an affectional space, or in Deleuzian terms the *smooth space*, which is under the various influences of inner and exterior stimuli, has been the key strategy in the configuration of the architectural space, together with the idea of constitution of a temporal territory for multi-modal interaction that leads into transitive subject-object relations. Besides, Spuybroek points out that the pavilion space not only juxtaposed the movements of the visitors and the animated form of the pavilion, but also blended the ingredients of the various spatio-temporal multiplicities of this heterogeneous space such as: the corporal and incorporeal existences

281 Cf. Spuybroek, Lars, *op. cit.*, p. 68, footnote 9.

282 Spiller, Neil, *Visionary Architecture: Blueprints of the Modern Imagination*, New York: Thames & Hudson, 2006, p. 54.

283 *Ibid.*

284 *Ibid.*, p. 56.

285 Spuybroek, Lars, *op. cit.*, pp. 69, 74.

of movements of visitors, or the water, as well as the “interactive electronic installation that creates the movement of light, sound and projections, that were activated by actions of the visitors”<sup>286</sup> (Figure 2).

The visitors entered to the pavilion through a hydraulically operating “three dimensional door”, which was opening meanly of a few degrees from its pivot, letting them to confront with the frozen entrance corridor –the “glacier tunnel” (Figure 3). Since the existence of the water was the main theme of the design of the architectural space, it was also configured to aggregate gradually within the space, reciprocally as the visitor cascades from outside to inner space, where it further appeared through “little wells and springs and mist coming from the ground”<sup>287</sup> within the space. After the entrance tunnel and the emerging water elements, visitors experience a “rain-bowl”, where they saw the sky, the formation of the clouds and atmospheric becomings of rain, etc. in a time-lapse, and experience the falling rain through the haptic processes. In addition to all, a “crystal clear water well” of 120 tones of water was also located to create “hallucinatory, sensorial feeling of vertigo”, which was manipulated by the projectors and the gas-releasing mechanisms that were placed under the water, while serving to strenghten the sense of instability and the major concept of water’s environmental closed cycle at the same time<sup>288</sup> (Figure 4).

On the other hand, as mentioned above, a “(...) very complex interactive installation, combining different electronic systems of sound, light and projections (...)” was designed and configured to “(...) extend the concept of deformation related to action”. Moreover, “as the building tries to liquidize people –[the visitor] become water’ (...)”<sup>289</sup>, this interactive installation further opened up the program and function to the unstability and dynamism. Spuybroek also acknowledges that the interior space of the pavilion was consisted of continous surfaces and were covered with different sensing devices, like light sensors-*WAVE*, touch sensors-*RIPPLE* and pulling sensors-*BLOB*<sup>290</sup> (Figure 5). He explains that every group of sensors operated in three levels of interaction. In the first level they operated in the level of “*topological deformation of*

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286 *Ibid.*, p. 74.

287 *Ibid.*

288 *Cf. ibid.*

289 *Ibid.*

290 *Cf. ibid.*, p. 75.

a project wireframe grid in real-time”<sup>291</sup>. On the second level they operated in the *real-time interaction* with the visitors’ acts and reacts within milliseconds by changing the “(..) overall lighting in the interior space and the sound”<sup>292</sup>, and on the third level the three of them operated on the *same moment*<sup>293</sup>. Although, the design of the pavilion addressed a great innovation in conceptualization, yet the system was built up with wet-cable technology, where the audio-visual devices were “connected through a cable way, that runs through out the building”<sup>294</sup>.

Thus, the Fresh Water Pavilion emerges as one of the preliminary examples of the “architecture of variation”, which has been developed under the initial systems<sup>295</sup> of interactive processes that were mechanically triggered and hydraulically operating mechanisms. They merely constitutes the literal transformation of the architectural space with their “capacities to be affected”<sup>296</sup>. By all means there is no longer a single definition of spatiality that might be possible, nor a spatiality that might exist without the experienter: a transitive spatiality of subject-object has emerged.

### § 3. Multi-modal interaction, body without organs, and machinic assemblage

The augmented spatial becoming of the pavilion is an interactive environment that works with impulse and reaction oriented systems of sound, light and mechanical systems affecting the form. Similar to Oosterhuis’s definition, the major intention in the design is the “art of building bi-directional relationships in real-time”<sup>297</sup>. So, unakin to the passive synthesis of virtual relations or responsive spatialities, novel spatial relations that have emerged with these contemporary technologies provide a two-fold interaction, a “bi-directional

291 *Ibid.*

292 *Ibid.*

293 *Cf. ibid.*

294 *Ibid.*, p. 75.

295 As it is known the initial examples are further pursued and developed with multi-modal attraction of push and pull technologies or two-fold interactions.

296 *Cf. De Landa, Manuel, “Material Evolvability and Variability”, in: Spuybroek, Lars (ed.), Research & Design: The Architecture of Variation, London: Thames & Hudson, 2009, pp. 10-17.*

297 Oosterhuis, Kas, *op. cit.*, pp. 120-121.

dialogue". They transform the spatio-temporal becoming into a *proactive* existence, where the received information has been processed and send back in a slightly adjusted or differentiated form<sup>298</sup>.

As Oosterhuis further mentions, this is totally a transitive process that transforms each actor within the dialogue, where the "two-way communication" changes the involving parties "after having sent back their response"<sup>299</sup>. Meanwhile, it could be also discussed that, since the notion of space, and consequently both the context of architectural space and knowledge of architecture, has been altered into evolving spatialities of bi-directional dialogue, as well as the transaction and data-flow; then the novel role of the architect also shifts somehow into a *programmer* –rather than a *creator*. Associating with the notion of mutual subjectivity once again, the architect briefly introduces the preliminary correlations and network structure of the potential relations by defining the possible parameters. Furthermore, s/he configures the space as a virtual embodiment of all spatial relations, which might be actualized through the processes of never-ending or unpredictable events.

So, in the light of augmented mediators, the spatio-temporal becoming emerges in the multiple *assemblages* of the bodies: the architectural embodiment of the pavilion space, the corporal presence of the visitor, the incorporal existences of the motion as well as light, sound and tactile experience. Yet, the spatial becoming majorly occurs through the machinic assemblages of the bodies without organs (BwO). Deleuze and Guattari define the characteristics of the BwO as a *spatium*, which could be also perceived as intense as an egg<sup>300</sup>. BwO is a "non-stratified, unformed, intense matter, matrix of intensity": it is a "production of the real as an intensive magnitude"<sup>301</sup>, that starts from the level of zero.

In their discussion on BwO, Deleuze and Guattari refer Spinoza's *Ethic* as the "great book of the BwO"<sup>302</sup>, in terms of the problem of unity and "uninterrupted continuum" of BwO in relation to *plane of consistency*, where the desire –all

298 Cf. *ibid.*, p. 114.

299 *Ibid.*

300 Deleuze, Gilles and Felix Guattari, *op. cit.*, p. 169.

301 *Ibid.*

302 *Ibid.*, p. 170.



the process of production— emerges immanent within the system itself as well as the influence of the exterior agencies<sup>303</sup>. In addition to this, they also emphasize that BwO is not the enemy of the organs, but the organism, any “dominant and hierarchized organization”, a dictating totality, or over-ruling system<sup>304</sup>. It is a “disarticulation of an organism, while opening the body to various connections of matter and energy flows of different intensities”<sup>305</sup>.

Besides, BwO exists in the strata, “swinging between the surfaces that stratify it, and the plane that sets it free”<sup>306</sup>. Deleuze and Guattari explains that by existing in the plane of consistency through constructing its little machine of assemblage, BwO reveals itself as a connection of desires, conjugation of flows and continuum of intensities<sup>307</sup>. BwO is not a fragmented body or organs without body. It is a “milieu of experimentation” or a “creative involution” and intensive *spatium*<sup>308</sup>. It is a “map of comparative densities and intensities as well as all the variations”<sup>309</sup>. BwO is a “distribution of intensive principles of organs with their positive indefinite articles, within a collective or multiplicity, inside an assemblage, and operating according to machinic connections”<sup>310</sup>. So that the body becomes *multiple*, whose “function or meaning no longer depends on an interior truth or identity, but on the particular assemblages”<sup>311</sup> it forms

303 Cf. *ibid.*, pp. 170-171. On the other hand, through the processes of *becoming animal* in the emergence of the masoch’s BwO, Deleuze and Guattari discuss the essence of the forces, where the *instinctive forces* are destroyed and are replaced with *transmitted forces* (cf. *ibid.*, p. 172).

304 Cf. *ibid.*, pp. 175-176.

305 *Ibid.*, p. 178.

306 *Ibid.*

307 Cf. *ibid.*

308 Cf. *ibid.*, pp. 181-182.

309 *Ibid.*, p. 182.

310 *Ibid.*

311 Referring to desire, Malins further explains how BwO operates as follows: “The body retains its own impetus—an impetus for forming assemblages which allow desire to flow in *different* directions, producing new possibilities and potentials. Revolutionary *becomings*. Becomings that can transform a single body or a whole social system. Brief lines of movement that move away from organization and stratification and toward a *Body without Organs* (BwO); in other words, toward a disarticulated body whose organs (and their movements and potentials) are no longer structured in the same way, or structured at all. The human body: *My breasts are for whipping* (masochism); *my mouth is for emptying my stomach* (anorexia); *my arm is a blank canvass* (tattooing); *my tongue is for dissolving a trip* (raving); *my veins are for transporting the drug* (injecting). A particular becoming is only ever transitional. A body-in-becoming soon re-stratifies: either captured by, or lured by, the *socius*” (Malins, Peta, “Machinic Assemblages: Deleuze, Guattari and an Ethico-Aesthetics of Drug Use”, in: *Janus Head*, VII, No. 1 (2004), pp. 84-104, p. 88; available on <http://www.janushead.org/7-1/malins.pdf>; last visit: July 10<sup>th</sup>, 2015).

with other bodies”<sup>312</sup>; just in the case of the Fresh Water Pavilion, where the “transitive subjectivity”<sup>313</sup> transforms the pavilion space into an objectile and further into an extension.

So, the BwO is a multiple body that is open to connect with all rhizomatic multiplicities (other corporal and incorporeal multiplicities and intensities) through the process of machinic assemblages. And obviously this is exactly the moment when the transitive body becomes the “nexus of variable connections”, which is multiplicity, and that “(...) is not a form, but a complex relation between differential speeds, between slowing and acceleration of particles”<sup>314</sup>, in Spinozian terms.

#### § 4. Evolvability and smooth space

The sun had not yet risen. The sea was indistinguishable from the sky, except that the sea was slightly creased as if a cloth had wrinkles in it. Gradually as the sky whitened a darkness lay on the horizon dividing the sea from the sky and the grey cloth became barred with tick strokes moving one after another, beneath the surface following each other, pursuing each other perpetually.

Virginia Woolf, *The Waves*<sup>315</sup>

As it has been discussed earlier, the fundamental idea of the pavilion derives from the principle of interactivity, where the architectural space becomes constantly re-configurable in terms of *functional*, *environmental* and *conditional* reconfigurability of the physical space<sup>316</sup>. Since this new spatiality “is based on invasion of digital technologies such as parametric design, generative com-

312 *Ibid.*, p. 84. Malins further states that Deleuze and Guattari’s concept of BwO “(...) unravels the fantasy of a stable, unified, bounded body entity, and gives a language to the multitude of connections that bodies form with other bodies (human and otherwise)”. She further states also that “A body’s function or potential or ‘meaning’ becomes entirely dependent on which other bodies or machines it forms an assemblage with” (*ibid.*, p. 85).

313 Bourriaud, Nicolas, *Relational Aesthetics (Esthétique Relationnelle)*, 1998), Dijon: Les Presses du Réel, 2002, p. 23.

314 Healy, Patrick, “The Stoical Body”, in: Hauptmann, D. (ed.), *The Body in Architecture*, Rotterdam: 010 Publishers, 2006, p. 128.

315 Woolf, Virginia, *The Waves* (1931), in: Trayler, H. (ed.), *The Selected Works of Virginia Woolf*, London: Wordsworth Editions, 2007, p. 639.

316 Cf. Oosterhuis, Kas, *op. cit.*, p. 8.

ponents, file-to-factory production, the process of mass customization and embedded intelligent agents<sup>317</sup>, the spatial components could “instantly change their mutual positions”, where the “floors can become protoDECKs, wall can become interactive walls, and building bodies can become Muscle Bodies”<sup>318</sup>.

Indisputably this evolvability and transformability of the space could not be projected apart from the notion of the *smooth space*. Deleuze and Guattari defines the smooth space as a heterogeneous spatiality that is consisted of non-metric multiplicities, a *nomos* of continuous variation and development of form<sup>319</sup>. Using the example of felt, contrary to a fabric, they define the smooth space as a model of entanglement rather than intertwining. So while distributing a continuous variation, this felt wise structure of smooth space is infinite, as well as open and unlimited in every direction, so that it could be constructible in every direction, without possessing a center, top or end<sup>320</sup>.

In addition to these they also assert the smooth space as a directional space, which is constructed by “local changes of direction”, where the line becomes the vector or the direction of this change<sup>321</sup>. It is an amorphous and unformed space of affections, a space of haptic perceptions<sup>322</sup> where “materials resemble the acting forces”<sup>323</sup>. Thus, smooth space is a “space of distances, which is also occupied by intensities of diverse tactile qualities”<sup>324</sup>, such as sounds, senses, etc.; so that the division of this distances concludes in the change of the nature each time. Briefly, the smooth space is consisted of multiplicities that are *non-metric, qualitative, acentered, rhizomatic, flat and directional*<sup>325</sup>. It is a transforming and transmutating system, which is continuously evolving. It is a *Spantium*, a body without organs<sup>326</sup>. Besides, contrary to Cartesian algebraic

317 *Ibid.*, p. 13.

318 *Ibid.*, p. 137.

319 Cf. Deleuze, Gilles and Felix Guattari, *op. cit.*, pp. 477-478.

320 Cf. *ibid.*, pp. 476-477.

321 Cf. *ibid.*, p. 478.

322 Deleuze and Guattari mention that unakin to optic perception of the Cartesian space, smooth space is a space of haptic perception (cf. *ibid.*, pp. 477-480).

323 *Ibid.*, p. 528.

324 *Ibid.*, p. 533.

325 Cf. *ibid.*, p. 534.

326 Cf. *ibid.*, p. 528.

geometrical pre-defined space, smooth space operates in a relational system through “amorphous accumulation of vicinities or situations of determinations”<sup>327</sup>.

In the light of smooth spatial relations, the contemporary ontology of space emerges as a “multiplicity, a differentiation while maintaining a continuity”<sup>328</sup>. This is a process of becoming, that is no longer a unity of predefined systems or a crystallized structure, but a continuous evolving mechanism of folding and unfolding processes of enliven territorial temporalities that beget under the influence of various affections.

As it is known, in relation to their concept of smooth space, Deleuze further introduces the concept of fold, which has been extensively used in the earlier phases of evolvable spaces of generative architecture. He discusses the concept of folding in relation to “degree of development and difference”, unakin to a “metric dimensional change”<sup>329</sup>. Besides, he further explains that fold is not the contrary of unfolding, neither does the tension-release or contraction-dilation mechanisms. However, folding and unfolding are intertwined processes of “enveloping-developing, involution-evolution (...)”<sup>330</sup>. Deleuze states that “(...) to unfold is to increase, to grow; whereas to fold is to diminish, to reduce, ‘to withdraw into the recesses of a world’. Yet a simple metric change would not account for the difference between the organic and the inorganic, the machine and its motive force. It would fail to show that movement does not simply go from one greater or smaller part to another, but from fold to fold. When a part of a machine is still a machine, the smaller unit is not the same as the whole”<sup>331</sup>. Like Krissel points out, the process of folding-unfolding “(...) encompasses a continuously differentiating entirety”, where evidently

327 *Ibid.*, pp. 534-535. In this regard, Deleuze and Guattari discuss the spatial relations of smooth space by referring to multiplicity and patches of Reimann, fractals of Mandelbrot, curve of van Koch, sponge of Sierpensky (cf. *ibid.*, pp. 536-537).

328 Krissel, Matthew, *Gilles Deleuze: The Architecture of Space and the Fold*, in: *Digitalprocess* ([http://digitalprocess.files.wordpress.com/2011/01/gillesdeleuze\\_fold.pdf](http://digitalprocess.files.wordpress.com/2011/01/gillesdeleuze_fold.pdf)), last visit: July 10<sup>th</sup>, 2015.

329 Deleuze, Gilles, *The Fold. Leibniz and the Baroque (Le pli: Leibniz et le baroque, 1988)*, London/New York: Continuum Books, 2006, p. 10.

330 *Ibid.*, p. 9.

331 *Ibid.*

the whole does not occurs as “(...) a matter of separate folded ‘parts’ (...)”, but the “(...) ‘whole’ has also been complicated with the many ‘parts’ (...)”<sup>332</sup>.

Moreover, Deleuze mentions that these processes of folding and unfolding occurs “independent of scale”, where they become merely a “general topology of thought”; so that the “(...) ‘inside’ space is topologically in contact with the ‘outside’ space (...)” (as the out-side to inside) and “(...) brings the two into confrontation at the limit of the living present”<sup>333</sup>. Therefore, the process of folding and unfolding is “a flow from outside to inside” and vice versa, “across different scales and independent of distance, where neither is fixed but rather in constant exchange”<sup>334</sup>. As a result, due to this “constant exchange”, an architectural embodiment is no longer “(...) one space and one site, but many spaces folded into many sites”; “(...) a folding of space into other spaces”; “a multiplicity where everything is always read and re-read but we never see it in its entirety”, where this “reading of space” becomes the reading of “variable intensities of movement”<sup>335</sup>.

Indisputably, the configuration of the architectural space emerges through unpredictability of the becoming, where –as Krissel also points out– “(...) new and unanticipated possibilities (between folded, enfolding and yet to be unfolded) occur without predetermined outcomes”<sup>336</sup>. Thus, within this foldable topological space, or similar to the earlier definition of the topology of becoming/plane of becoming, “(...) connections acquire vitality, with emerging possible interactions implying multiple fluid thresholds”, and “(...) the folds become the events themselves”<sup>337</sup>.

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332 Krissel, Matthew, *op. cit.*

333 Deleuze, Gilles, *Foucault*, pp. 118-119.

334 Krissel, Matthew, *op. cit.*

335 *Ibid.*

336 *Ibid.*

337 *Ibid.*

## § 5. Fresh Water Pavilion as a becoming

(...) one can actually feel that one is living inside evolution. One feels the progress of evolution by observing the evolving products.  
Kas Oosterhuis, *Towards a New Kind of Building*<sup>338</sup>

Evidently, the major impulse of the post-structuralist paradigm of fluid and dynamic envisioning of the spatial relations has emerged with the indispensable texts of Deleuzian interpretations that have broken the surface and make the transformation of the discourse and praxis visible particularly with the AD accomplishment of its special issue *Folding in Architecture* around 1993. By advocating the concepts of fluidity, viscosity and resolvability of spatiality, the transformative capacities of architectural existence through its heterogeneous embodiment have been asserted as the essence of the contemporary architectural space of the late 90's. This has been pursued with the initiations and realizations of literally animated architectural embodiments, which further emerged as the *machinic assemblage* of organless bodies, and comes into being through heterogeneous synthesis of plug-in's and prosthesis. They emerge as affectable topologies of becoming, which could be both acting-performing and being acted on.

As it has been limitedly discussed within this representation, but immensely has been discussed even beyond architecture –through resonating almost every field of production for decades, the transformative capacities of the spatial becoming, the emergence of smooth space and dissolving properties of striated space, the abolition of the Cartesian spatiality, the processes of deterritorialization and reterritorialization of the spatio-temporal multiplicities and the engagement of corporal and incorporeal bodies through the process of machinic assemblages have been the essential points in revealing the evident presence of Fresh Water Pavilion project as a becoming. Besides, apart from being diminishing the complex spatial relations, however with an intention of briefly depicting the accompanying concepts and architectural interventions in terms of discussing the architectural space of Fresh Water Pavilion case as a becoming can be summarized like the diagram below (Figure 6).

When getting ahead of the ubiquitous computing and their inclusion into the space, the progressive trans-material based experiments, related to biological models of the recent decade, evidently call the emergence of a novel generation of architectural embodiment that could produce its prospect tissues that might further pleat it into its other embodiments, from which “each being called in its turn to unfold its own parts at the right time”<sup>339</sup>. With its self-organizing capacities, and its encapsulated vital impetus, this autopoietic emergence resembles no longer an augmented embodiment, but a *differentiated* one, which folds, unfolds and refolds itself to its prospect becomings of its *species*.

As a result, departing from the mechanical models to topological models and recently to the biological models, and in the light of contemporary paradigm, we could state that the space emerges as a dynamic system where, as Krissel says, “infinite ‘product’ possibilities, processes and virtuality could unfold across a diverse architectural landscape with no definable beginning or end; rather, an evolving continuum”<sup>340</sup>.

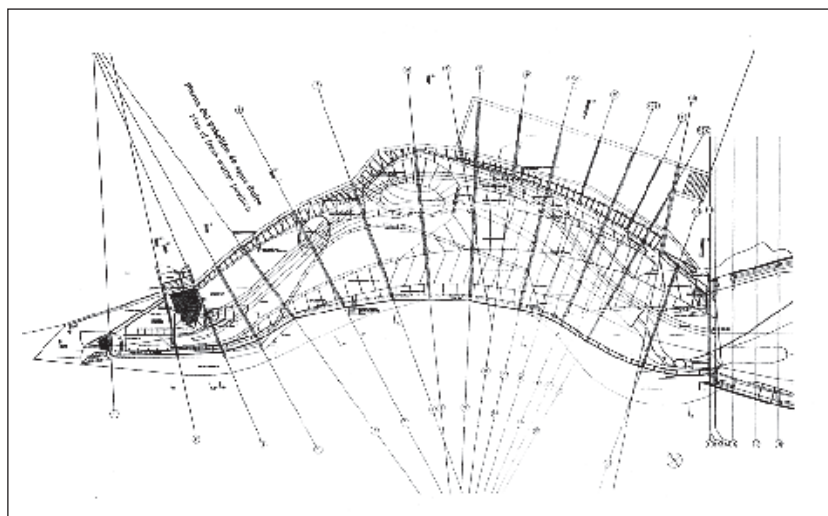
### Figures:



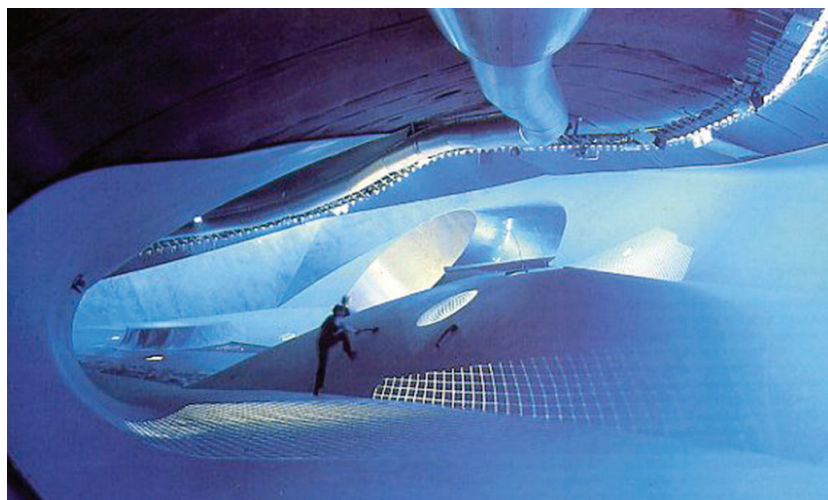
**Figure 1:** The Fresh Water Pavilion (NOX Architecture, 1997).

339 Deleuze, Gilles, *The Fold. Leibniz and the Baroque*, p. 9.

340 Krissel, Matthew, *op. cit.*



**Figure 2:** The Fresh Water Pavilion, plan (NOX Architecture, 1997).

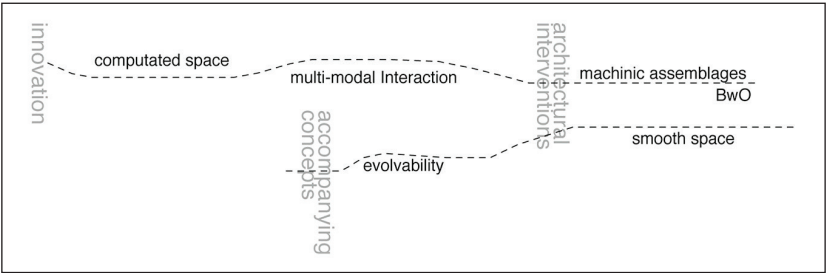


**Figure 3:** The Fresh Water Pavilion, glacier tunnel (NOX Architecture, 1997).

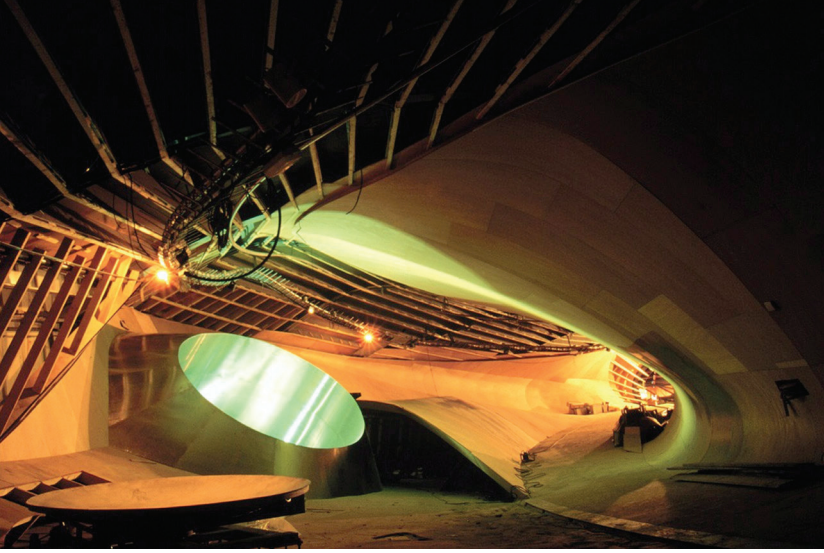




**Figure 4:** The Fresh Water Pavilion, interior atmosphere (NOX Architecture, 1997).



**Figure 5:** The Fresh Water Pavilion, sensor structures (NOX Architecture, 1997).



**Figure 6:** Concept-pairs diagram for the Fresh Water Pavilion Project.

**Figure References:**

**Figure 1-5:** NOXArchitecture (<http://www.nox-art-architecture.com>; last visit: July 10<sup>th</sup>, 2015).

**Figure 6:** Diagram generated by Assoc. Prof. Dr. Emine Görgül.