# Choreography and the Expanded Subject

Every performance explains the composition but does not exhaust it. Every performance makes the work an actuality, but is itself only complementary to all possible other performances of the work.

—Umberto, Eco, *The Open Work*

The residual tensions between the Enlightenment and Romanticism are perhaps most pronounced when discussing *performance*. The typical measurements of performance in contemporary architecture—the calibration of efficiency, optimization, or endurance, for example—often describe the negotiation between architecture and the dynamic factors of the physical environment. This reading of performance aligns itself more closely with the evaluation processes of the engineering disciplines, and by association privileges the judgment of architecture's *raison d'etre* through quantitative data. At the same time, the etymology of the term *performance* as an "accomplishment," "a thing performed," or an

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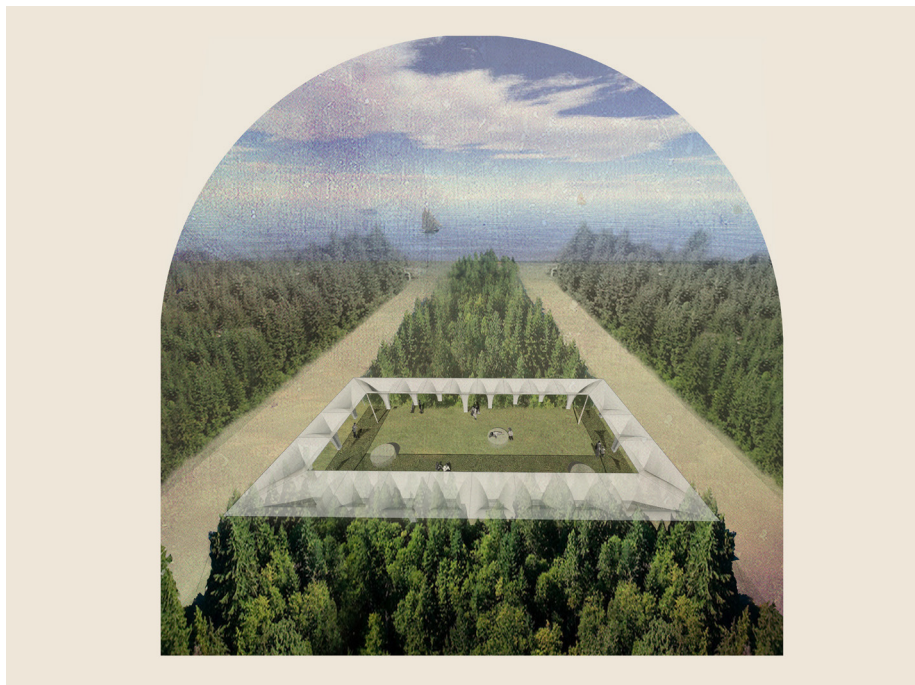
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Figure 1 : Overhead view of the threshold Condition, *Garden of Displaced Roots, The Open Workshop (2013)*

"action of performing a play"[1] implies an engagement between divergent forms of expression and a collective audience. Evaluation, in this case, does not reside within the seemingly objective metrics of quantitative data but rather in the subjective judgment of the qualitative aspects of a performance. Indeterminacy is engendered in both of these readings of performance — from either the fluctuating qualities of physical environment or the individual subjective expressions emblematic of a diverse public realm. Subjective expression and the dynamic qualities of the physical environment engendered in these two simultaneous readings of performance embody larger characteristics that we are witnessing in the contemporary urban territory — as a field of indeterminacy, contradiction, and heterogeneity.

The majority of architecture and urban design of the twentieth century aimed to tame the contradictory, heterogeneous, and contingent urban environment, both physically as well as sociopolitically. For instance, this is easily witnessed in how infrastructure was deployed to operationalize large geographies, most notably in the WPA infrastructural projects, or at a more modest scale in CIAM's functionalist city. This is also understood within modernism's simplification of "the individual," who aggregated into a mass rather than a diverse public. Instead of controlling and limiting these dynamic and divergent factors, we are increasingly aware of the practical and political benefits of engaging indeterminacy. Pragmatically, unpacking how the dynamic qualities of the physical environment can form productive relationships to architecture is at the core of ecological design. It is no surprise that this form of relational engagement has been primarily through "objective" data. Further, we must remember that through individual expressions of action and speech, the politics of pluralism, as well as the richness of the public sphere, is secured.[2] This engagement with indeterminate factors does not necessarily reduce the craft, precision, authority, or determinism of architecture but rather re-centers the conversation of performance on who the subject of performance is and how design can more holistically engage this subject.

Despite the need to embrace the complexity of indeterminacy, it is also necessary to provide a collective framework to ensure that individual elements are systemically linked to be greater than the sum of their parts. For instance, recent discussions and examples of ecological urbanism emerge from holistic systemic integration, a key characteristic of an ecosystem. From Foster's Masdar City to ARUP's Wanzhuang or Dongtan eco-city plans, the transcalar reciprocity between material artifacts and transforming phenomena allows for an ecological integration of differing systems. Similarly, a collective public realm is required to
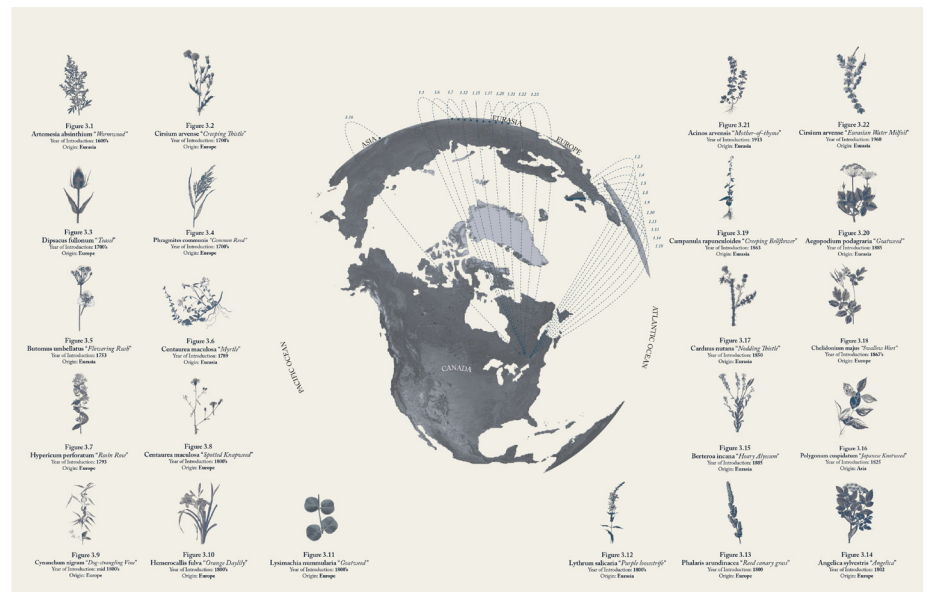
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Figure 2: Geographic Origin of the 'invasive' species, *Garden of Displaced Roots, The Open Workshop (2013)*

catalyze the products of individual action and speech to complete the equation of pluralism and ensure the stability of the public realm.[3] Spatial design is positioned here as the *mediator* between the indeterminate qualities of individual subjects and the physical environment they exist within—it clarifies and curates a collective framework for performance.

CASE STUDIES: ENVIRONMENTAL SUBJECTS

The Garden of Displaced Roots is an experimental design proposal for a temporary garden exhibition that examines how the performance of the subject highlights tensions between the individual and collective, indigenous and migrant, and natural and artificial through an exploration of invasive plant species.

In Canada, currently 486 invasive plant species have been identified to date, many of which were introduced during the colonization period of the 1800s to create gardens for ornamental purposes.[4] Ironically, it is the success of these plants at flourishing in non-native environments that now makes them a threat. Simultaneously, several of these "alien" plants have resided in Canada longer than the country's own formation in 1867, making them *more* Canadian than Canada itself. *The Garden of Displaced Roots* produces a living archive of twenty-two of the earliest invasive plant species to Canada, originally and intentionally introduced to the country for their beauty.

The project is organized within a tensile portico structure that simultaneously evokes a monumental archetype[5] and a light tensile veil. Each of the "invasive" species hovers behind the transparent veil within an individual module designed to separate them from the very ground where they could pose a threat. As the plants develop, their weight would pull them closer to the earth—the tension of the flexible portico structure aligning with the tension of the approaching species. Created from interconnected tensile members, the entire structural system balances and negotiates each individual unit against the whole. The structure is distorted by the plants as well as human occupation—pushing and pulling on the modules, a balancing act of environmental and social transformations. It is the weakness of the tensile system of supports and the membrane fabric that enables the characteristics of the individual species to have an effect on the whole. Thus, the portico archetype is merely an index of a recognizable figure that is subverted by its environment and inhabitants. By framing the tension between invasive and native species, the project is in part a critique of culture through art and in part a critique of nature through garden design.

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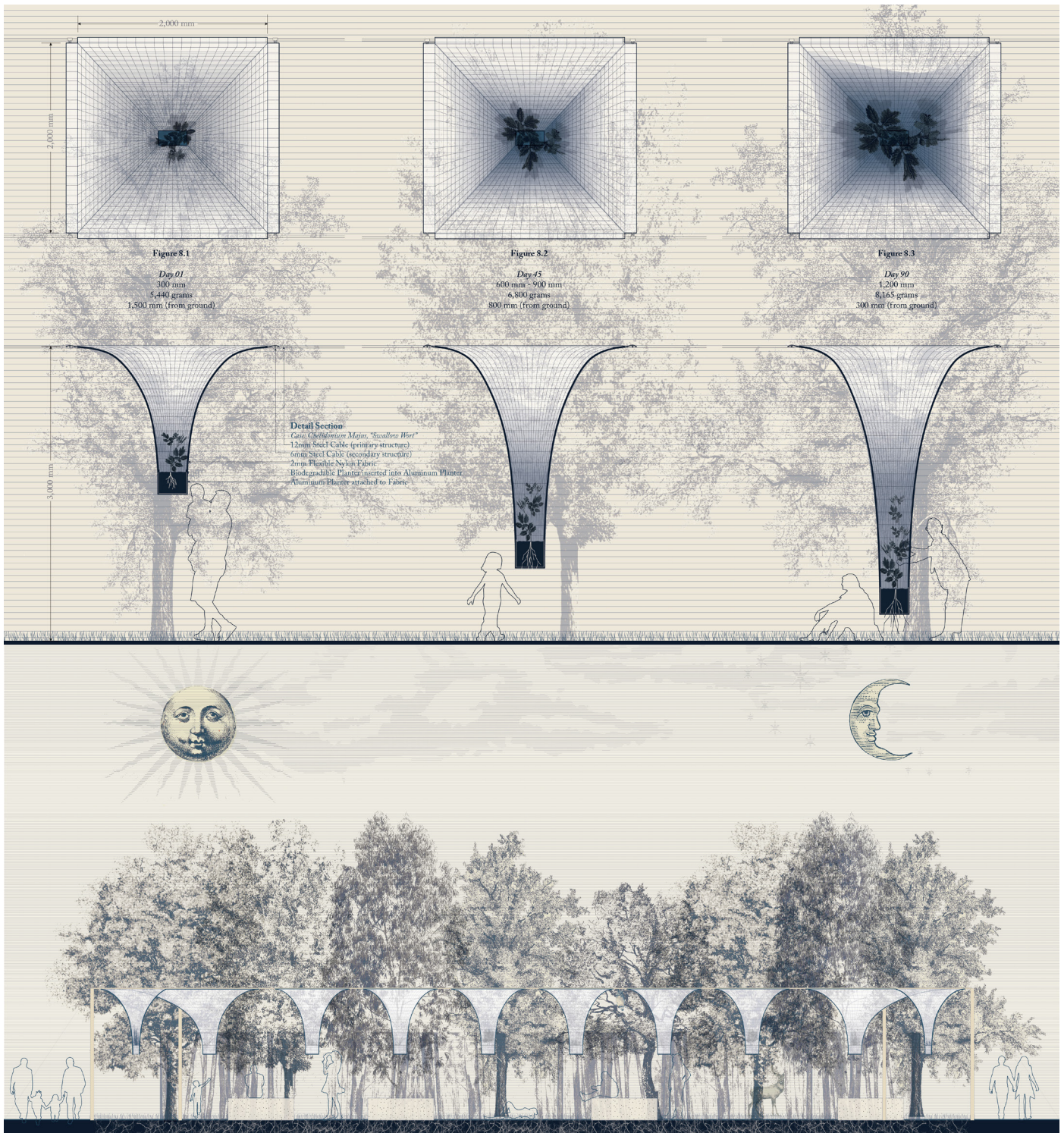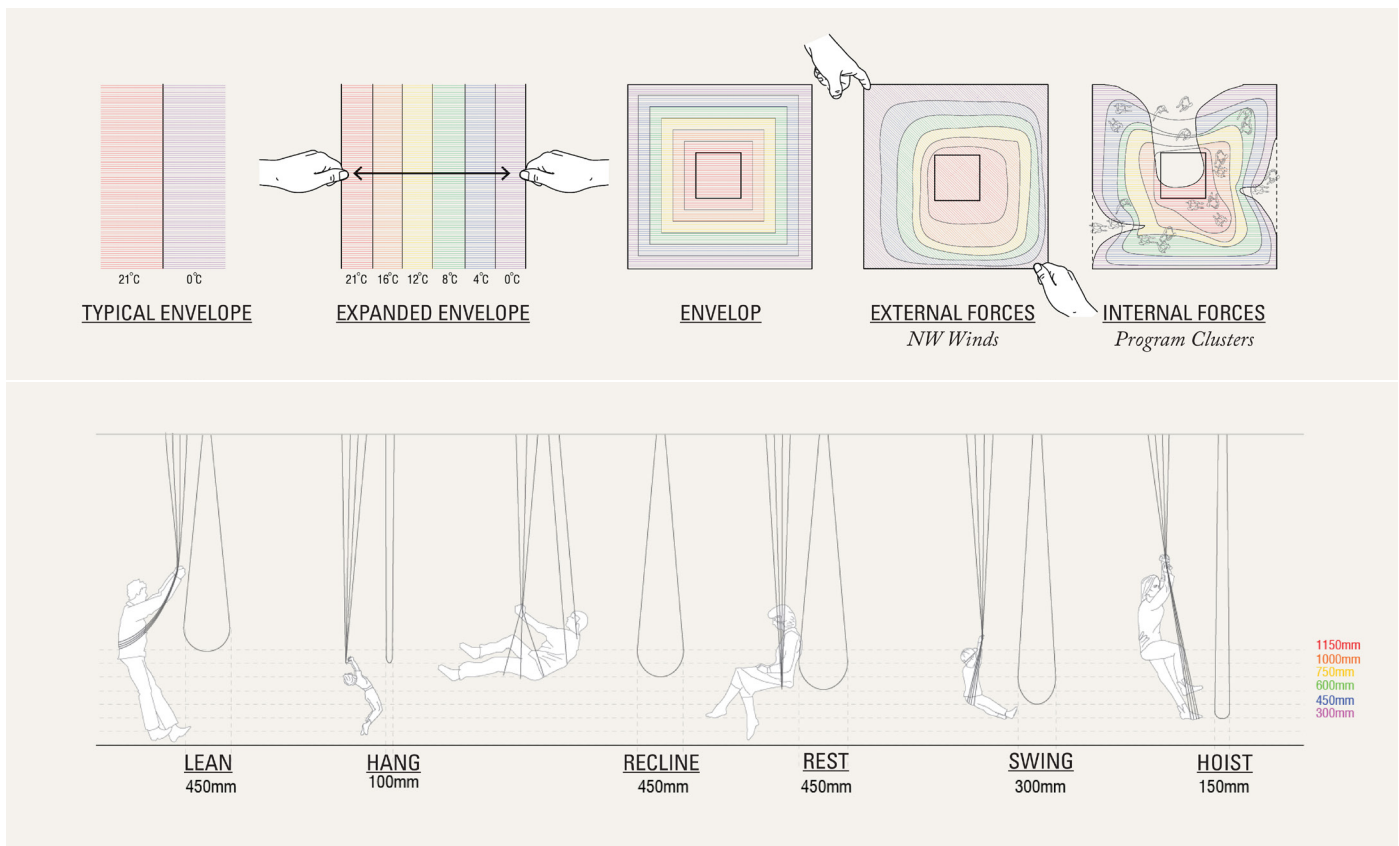Figure 3: Planting Plan of the Living Archive, *Garden of Displaced Roots, The Open Workshop (2013)*

Figure 8.1
Day 01
300 mm
5,440 grams
1,500 mm (from ground)

Figure 8.2
Day 45
600 mm ~ 900 mm
6,800 grams
800 mm (from ground)

Figure 8.3
Day 90
1,200 mm
8,165 grams
300 mm (from ground)

2,000 mm

2,000 mm

3,000 mm

Detail Section
Case Chelidonium Majus, "Swallow Wort"
12mm Steel Cable (primary structure)
6mm Steel Cable (secondary structure)
2mm Flexible Nylon Fabric
Biodegradable Planter inserted into Aluminum Planter
Aluminum Planter attached to Fabric

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Figure 4: Section of Growth and Distortion of Portico Structure, *Garden of Displaced Roots, The Open Workshop (2013)*

Figure 5: Elevation of project in 'start' condition, *Garden of Displaced Roots, The Open Workshop (2013)*

TYPICAL ENVELOPE   EXPANDED ENVELOPE   ENVELOP   EXTERNAL FORCES *NW Winds*   INTERNAL FORCES *Program Clusters*

21°C   0°C   21°C 16°C 12°C 8°C 4°C 0°C

LEAN 450mm   HANG 100mm   RECLINE 450mm   REST 450mm   SWING 300mm   HOIST 150mm

1150mm
1000mm
750mm
600mm
450mm
300mm

Enveloops is an experimental design for a temporary winter pavilion. The project utilizes a field condition to structure a negotiation between human occupation and the environment—including factors such as play, wind, warmth, and gathering. This negotiation is not complete, but part of the continual re-composition of the project.

Warmth has traditionally been achieved within architecture through deploying an envelope, which hermetically divides—through a singular plane—the interior from the exterior. Instead of separating one from the physical environment, *Enveloops* examines the expansion of the envelope into a three-dimensional field condition that envelops the visitor. This acts as a soft mediator that blurs the divide between 'interior' and 'exterior'—allowing the thickened negotiation of these realms to be played out with the human subject.
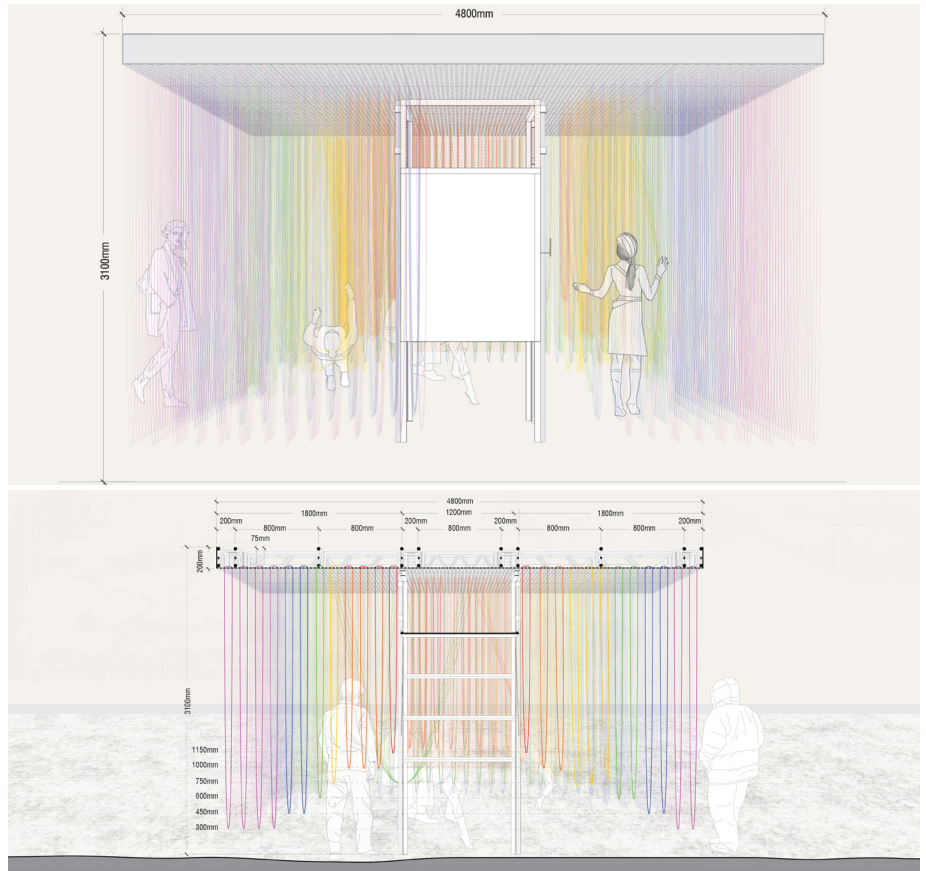
The field is constructed through a series of threaded loops. The further one moves into the installation, the more they are softly enclosed for intimate experiences while still remaining connected to their context. Colour-coded through layers of temperature nesting, the loops, and their associated warmth, create different zones for occupation and comfort. The field is articulated further in section: the loops are hung at a series of heights to enable different forms of occupation and engagement—climbing, hanging, swinging, reclining, sitting, lounging. The field does not prescribe a singular use, but offers a series of possibilities that engage the curiosity of the human body to think through new forms of occupation. Program, structure, and envelope are merged into a fluid field condition that is constantly negotiating the subject — the environmental forces of wind and temperature and social forces of gathering.

Enveloops and *The Garden of Displaced Roots* purposely employ legible geometries—the portico threshold, the cube—to foreground the reappropriation of the object by an expanded subject. This act enables the transformation of the object, through dynamic human and environmental forces, to reinforce both the forms and pressures of the transforming elements as well as the framework which hosts the performance.

Figure 6: Expansion of the Envelope to an enveloping field, *Enveloops, The Open Workshop (2014)*

Figure 7: Human occupation of the field, based on sectional modification, *Enveloops, The Open Workshop (2014)*

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Figure 8: Elevation and Section of the field, *Enveloops, The Open Workshop (2014)*

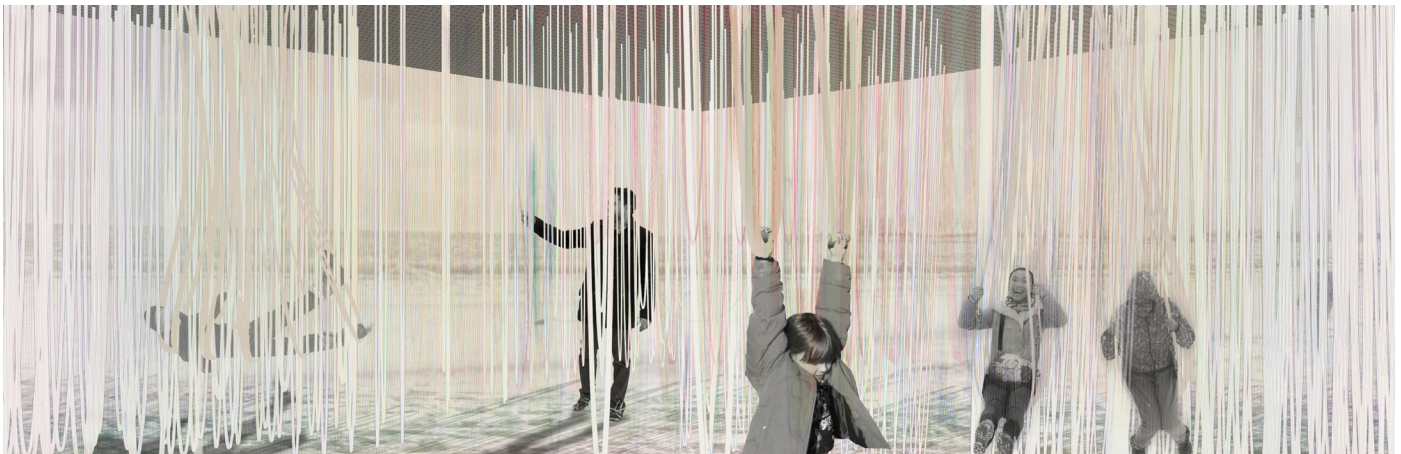Figure 9: Being enveloped within the interior, *Enveloops, The Open Workshop (2014)*
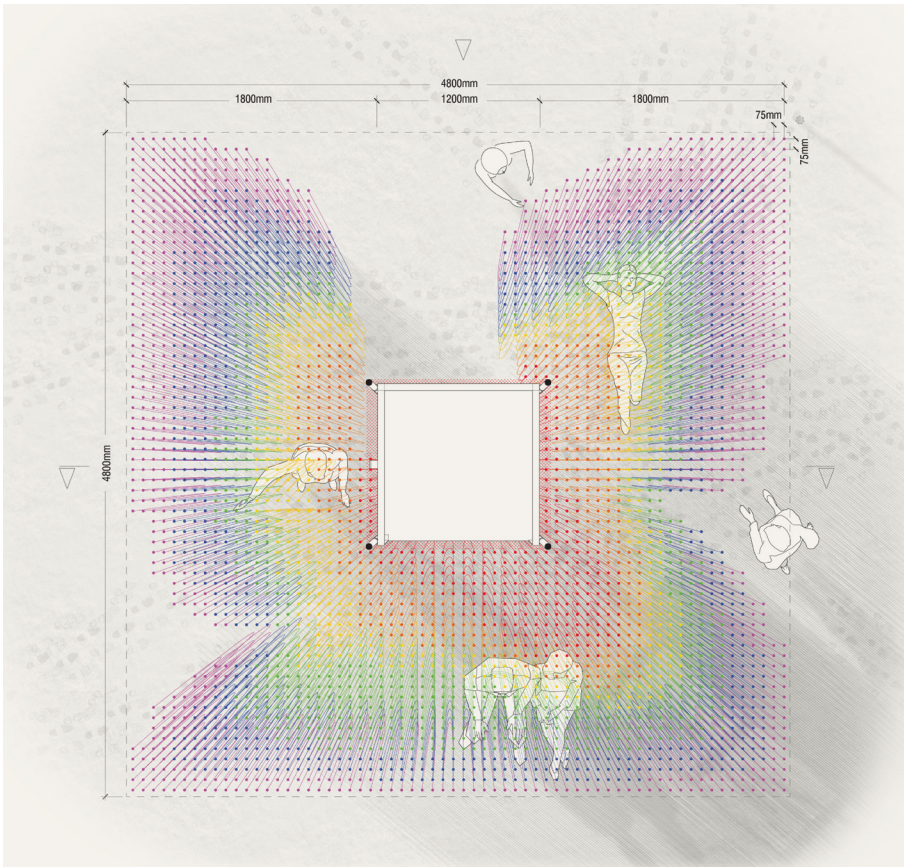
THE OPEN WORK

For designers, it would be useful to elucidate where control is exerted within this collective framework and how this collective framework can embody both aspects of performance from the quantitative to the qualitative. Umberto Eco's notion of "the open work" provides a template for how to reconcile design control with indeterminate and possibly conflicting factors. In 1962, Umberto Eco published *Opera Aperta*, or *The Open Work*, in which he characterized a work of art as either "closed" or "open" depending on the relationship it crafts between the subject (the viewer), object (the work of art), and author (the artist). For Eco, a closed work of art compels the subject to view and interpret the object in a singular manner, prescribed by the author.[6] In contrast, the open work is strategically designed by the author

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to allow each individual subject to project his or her final missing pieces onto the work, in order to complete it. From a musical composition by Stockhausen and Boulez to a metaphor of Kafka or a pun by Joyce, the open work positions the subject as an active agent in its production. Whether a poem, film, or song, it allows for the possibility of numerous subjective experiences and interventions while still maintaining its status as a "work" because it is framed within the world intended by the author.[7] The power of Eco's concept lies in the simultaneity of *both* an underlying order *and* an openness for indeterminate acts.

While Eco's treatise did not touch on architectural practice, the open work is promising in the context of political and environmental indeterminacy. To engage with architecture through the open work requires the expansion of Eco's subject to include the environmental

Figure 10: Plan of the thickened envelope, *Enveloops, The Open Workshop (2014)*

Figure 11: View from the exterior, *Enveloops, The Open Workshop (2014)*

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context, which is inseparable from any act of spatial design. The open work enables designers to act with controlled precision yet also require individual meanings, interpretations, and/or the transformative qualities of the environment to complete to the work. The open work straddles the fine line between the individual and collective, the chaotic and the ordered, and the informal and formal. The subject becomes an integral part of the completion of the work through performance. Eco writes:

> Every performance explains the composition but does not exhaust it. Every performance makes the work an actuality, but is itself only complementary to all possible other performances of the work. In short, we can say that every performance offers us a complete and satisfying version of the work, but at the same time makes it incomplete for us, because it cannot simultaneously give all other artistic solutions which the work may admit.[8]

Architecture stages performance. It frames a collective structure wherein the shifting, transforming, and dynamic qualities of the subject complete the work. The performance of the *Garden of Displaced Roots* or *Enveloops* is one instigated by the designer but implemented by the subject—a subject that is both a human and non-human agent. It is the theater of life that continually re-creates interpretations, performs the work, and subverts the form. Design is not lost in this equation but rather re-centered on orchestrating the negotiation between indeterminate subjects and determined form. It is the richness of the dynamic subject that is foregrounded but only understood through the collective framework of architecture.

ACKNOWLEDGEMENTS

ENDNOTES

1. Harper, Douglas, *Online Etymology Dictionary*, "performance." Accessed March 1, 2015. http://www.etymonline.com/index.php?term=performance&allowed_in_frame=0

2. Arendt, Hannah. *The Human Condition* (Chicago: University of Chicago Press, 1958), 175–76.

3. Ibid, 52.

4. Canadian Food Inspection Agency. *Invasive Alien Plants in Canada*. CFIA. Ottawa, ON, 2008, 2.

5. Lincourt, Michel, "The Portico as an Architectural Archetype" in: *In Search of Elegance: Towards an Architecture of Satisfaction* (UK: Liverpool University Press, 1999), 306–07.

6. Eco, Umberto, "The Poetics of the Open Work" in *The Open Work* (Cambridge: Harvard University Press, 1962), 3.

7. Ibid, 20.

8. Ibid, 15.