

# Performative Methods in the Design of Architectural Lighting

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In the foreword to his book from 1959 *Experiencing Architecture*, the Danish architect and former professor at the Royal Academy, School of Architecture in Copenhagen, Steen Eiler Rasmussen argues that “the architect is a sort of theatrical producer, the man who plans the settings of our lives [...] The architect sets the stage for a long, slowmoving performance which must be adaptable enough to accommodate unforeseen improvisations”<sup>1</sup>.

Rasmussen anticipated a way of thinking architecture, which nowadays – and as a result of postmodern philosophy – has further developed into even more radical approaches, where the behaviour and experience of engaged inhabitants have become central.

The Danish theorist Marianne Krog Jensen argues that “architecture is a cultural action [...] We no longer ask what architecture is; we ask what it does. Space is something that unfolds; it is defined through movement, action and creation”<sup>2</sup>. The experience of architecture emerges out of the activities of living and is shaped by the negotiation between our experiential accounts and performative engagement.



Thinking of architecture as an artistic composition of physical appearance that shapes the conditions for our living, we need to include an “understanding [of] man and his surroundings as flows that constantly interact and transform each other”<sup>3</sup>. In this understanding architecture deals with experiential processes and situations in which also social spheres and relational aesthetics are at play, and space appears as an emerging phenomenon that is constituted in the instantaneous experience of it. The question is how to develop a methodological approach that facilitates an increasingly holistic experiential position (as intimately interconnected to experiential accounts and explicable only by reference to the situational contexts), – in architectural education as well as in research.

This article discusses methods of experiential research deriving from actor training and expert practice in psychophysical performance techniques. The discussion outlines how staged situations of being psychophysical involved can be used as a methodological approach retooling our design strategies, and it further argues how such involvement generates a specific analytical state and observational position distinct from our everyday state of mind.

The subject of investigation is the use of daylight as source and composition of light zones in architectural lighting design. The method seeks to bridge between the exploratory procedures of artistic practice and the demands for analytic reflection in academic research inquiries, devising a method of staging experiential situations in a way that can accommodate the demands of both artistic and research investigations.



## Daylight and the composition of light zones

The inflow and effect of daylight as architectural lighting source is highly complex and dynamic by nature. Daylight is commonly analysed through three main categories: sunlight, skylight and reflected light <sup>4</sup>. The sunlight is determined by location, time of year and day. Skylight is determined by weather conditions (the different nature of clouds), and reflected light is determined by the reflective qualities and colours of chosen materials such as the surface of surroundings, walls, floors, ect. For the architect modulating daylight is a key aspect of shaping the interior of a building. The particular problems dealing with daylight relate to the function of the specific building, to climatic concerns, to human ecology and aesthetic issues.

In the research discussed, the daylight opening or aperture is conceptualised as a complex compositional instrument that captures the light from the outside, channels the light, and spreads the light into the inside. The suggestion is that this capture-channel-spread system opens for new design approaches and generates new ways of thinking of the opening by which the light zones inside the buildings are composed.

The concept of light zones is an architectural tool <sup>5</sup> used to identify the three-dimensional experience of spatial forms as it is shaped by light intensities. The light zone concept simultaneously entails identifying darkness as dark zones as well as lightness as light zones, allowing for an understanding of spatial geographies as gradual intensifications of lightness and darkness.



The capture-channel-spread system opens for new possible and emergent adaptive qualities in the research in daylight as a resource for indoor qualities. In the workshop related to this article these operations were identified and explored as

- Kinetic transformation
- Altering transparency
- Changing reflectivity

The capture-channel-spread system is understood as the separating or connecting elements or operations that define how daylight might influence the indoor living qualities.

### The performer technique as operations of self-reference

The field of theatre anthropology offers some very useful conceptions setting a context for investigations from experiential accounts. In the diversity of performer techniques, terms such as the pre-expressive and extra-daily state of the performer are based on a psychophysical engagement. These techniques, developed as training systems in the daily praxis of the expert performer, are also facilitative to observational methods regarding the analysis of spatial matters.

The specific modalities of the expert performers can be argued to promote a self-reflective state by which the performer is enabled to observe his observations. In this thinking, the performer navigates within different orders of observation, enabled by techniques of self-reference.



Through a formal set of instructions and obstacles the expert practices of the performer (techniques, – the framing rules included in the training systems) situate the performer in a particular self-reflective operation, and facilitate methods “in order to cultivate [...] inner awareness toward a heightened [...] state of engagement in a particular practice” <sup>6</sup>. The performer’s heightened state of readiness for action is a particular self-reflective mode of presence, enabling him the capacity to perform while simultaneously observing his own activities and relating to the contexts of the situation.

The performer’s expert practice is here discussed as the construction of a system of self-reference, a particular pre-expressive capacity by which the performer controls the composition of her actions and her partaking in the event. This mode of engagement is termed ‘extra-daily’ with reference to the theatre director Eugenio Barba’s theories <sup>7</sup> of expert performer practice, where he suggests that the performer develops a pre-expressive capacity for specific extra-daily behaviour <sup>8</sup>, – an ability to reflect on actions while engaged in performing the actions.

The artificially generated reference systems enabled within the expert practice of performer technique are considered as operations of communication, simultaneously operating on three contexts: as internally within one person, between the person and her environment, and in-between people, – orchestrated as a complex of relationships across contexts. These dynamic and communicative relations are regarded as a complex of differentiated observer positions, that is, inter-related self-reflective positions of attention that continuously negotiate and situate the ‘experientiality’ <sup>9</sup> of the event. The suggestion is that the practitioner’s performative engagement unfolds as a system of communication, formatted by the self-referential operations embedded in the staged event.



## Extra daily behaviour

In the course of the training the performer develops a capacity for performing, a scenic behaviour which is distinctly different from his every day behaviour. The performer's expert practice is "the behaviour of the human being when it uses its physical and mental presence in an organised performance situation and according to principles which are different from those used in daily life" <sup>10</sup>.

Barba terms the heightened state developed within expert practice an 'extra-daily' mode of presence, distinct from daily life behaviour, obtained through expert practices, and evolving as a consequence of a cultivated technique.

The ordinary behaviour and daily use of techniques such as eating, walking, sleeping, is based on the anthropologist Marcel Mauss' <sup>11</sup> concept of 'daily activities'. These ordinary behaviours are understood as human techniques conditioned by culture and everyday situations, embodied in human action and structures of social disposition. The concept of extra-daily is then "the utilisation of specific body techniques which are separate from those used in daily life" <sup>12</sup>.

There exists a large diversity of performer techniques, each developed and formed in relation to particular cultural and artistic contexts. The techniques are embodied as an individually achieved capacity, through each performer's personal achievement of their expert interpretation of a certain extra-daily behaviour. The extra-daily expressive capacity of the expert performer is what Barba terms 'pre-expressive', a way of working particular to the individual performer.



## Pre-expressive capacities

The performer works with formal understandings of a developed scenic behaviour, a preparedness for articulate behaviour particularly developed for the conditions of performing. The performer moulds his tensions according to pre-expressive techniques, which in turn facilitate the control of his presence in the performance. He articulates formally through pre-expressive techniques, which are then experienced as articulate expressions by the spectators.



The pre-expressive capacity refers to how the performer expresses, as different from what she expresses. Barba<sup>13</sup> explains the pre-expressive as “the *doing* and *how the doing is done* [, that] which determine what one expresses”. The pre-expressive level is therefore “an operative level ... a praxis ... at the root of the various performing techniques”<sup>14</sup>. It is the formal reflective distance to the performed actions through technique that builds as a pre-expressive capacity, a capacity for formal articulate performability. According to Zarilli<sup>15</sup>, the pre-expressive capacities are “characteristics shared by systems of training/exercise through which the actor works on oneself. [...] [E]xercises are not simply a means of toning the physical body, but creating an entire new awareness of the actor’s internal life – not in a psychological or behavioural sense, but as a psychophysiological means of encountering the performative moment ... a bodymind awakened, sensitized, made newly aware or fully concentrated”.

The concept of pre-expressivity enables a discussion on the technique of the performer and her expert practice of expression through performing, identifying the performers mode of articulation as distinctly different from how the spectator experiences the performer. For instance, the performer executes facial and gestural activities in a tension between learned behavioural patterns and a recall of emotional memory, while the spectator experiences a smiling character articulating her engagement with gestural signs.



## The performative – and the reflective engagement of observing

From the insight of the expert performer of psychophysical training practice, Zarilli explains how the performer's embodiment of pre-expressivity is a condition of simultaneously being aware of the inner sensations, the outer relations and his presence in the event. He argues that this condition constitutes a heightened state of attention, where the "practitioner's attention is directed simultaneously outward with the external eye, and inward ... with the "inner eye""<sup>16</sup>. The performative method discussed in this article situates the investigator in that state of enhanced capacity and sensibility, which Zarilli has identified relative to the expert practitioner, but formalised as a particular set of engagements.

The agencies at play in the practitioner's role can be separated into the activities of performative engagement and the activities of self-reflection. The practitioner is, in this way, thought of as observing his own performing while performing (performative engagement), and performing his own observation while observing (activities of reflection). In the book *Art as a Social System* the social scientist Niklas Luhmann<sup>17</sup> elaborates extensively on these self-referential positions as first and second order observation. The concept of 'observation' entails an extended notion of observation, including all sensor-motor and cognitive activities of both the performative and reflective engagement of observing. From this initial identification of the 'observer' are then emerging orders of observation. The first order is the awareness of what appears, from a position within the engagement of making it appear, excluding any outside view of the engagement. The second order is the awareness of that first order observation, evoked by observing the observation. A third order is suggested to



entail a re-entry of the first order into the second order, enabling a mode of observation simultaneously from within and from outside.

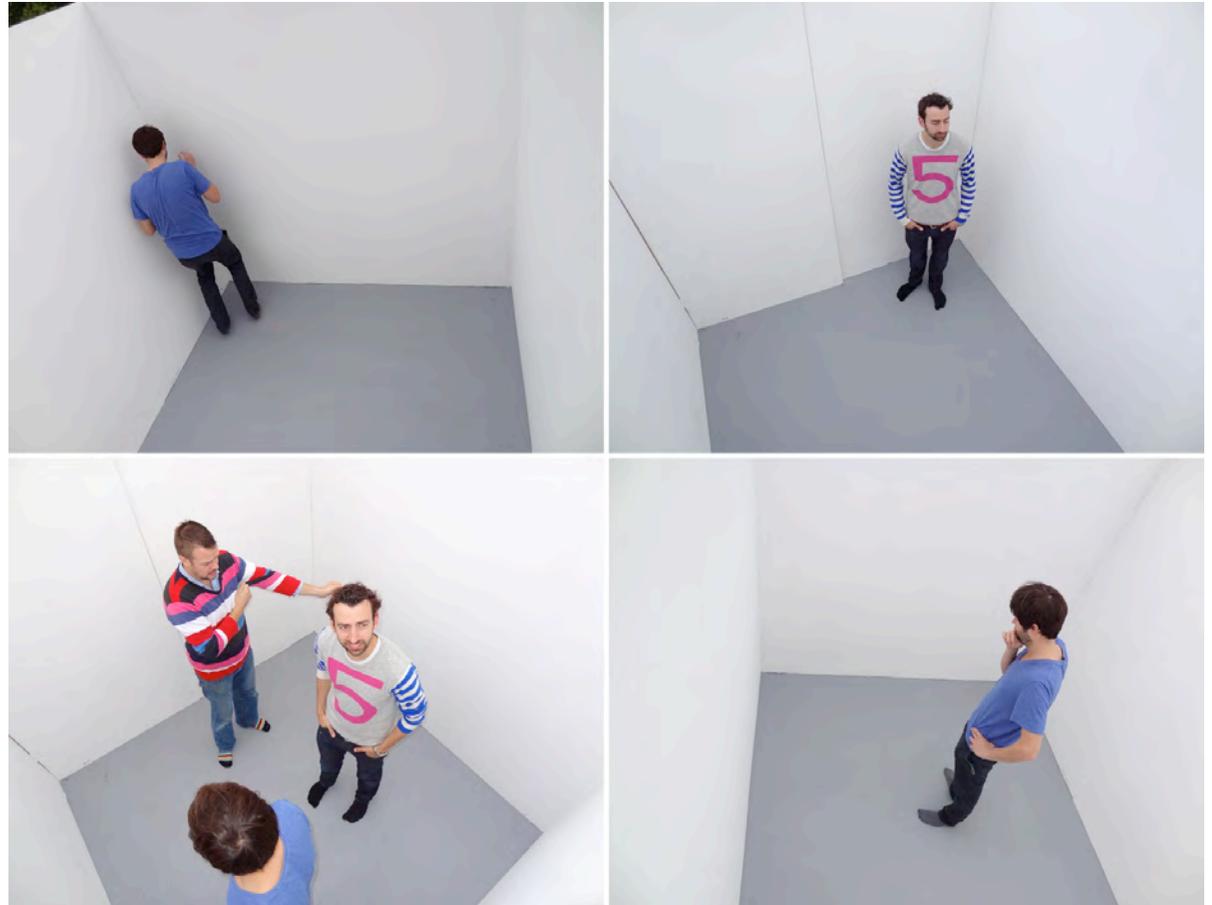
The practitioner's engagement seen as modes of observation in this way opens for a strategic approach to stage orders of engagement, and thereby to stage observing positions for the exploration of experiential qualities.

### Staging orders of observation in an explorative architectural context

The developed strategic method enables a structure of engagement by which a group can share a first hand experience and explore this same experience from different positions as a comparative qualitative investigation. This method operates with a selection of observer roles similar to the self-reflective roles of the performer, and is specific in the way it situates a collective of investigators in different roles of observation within the same explorative engagement.

The triangular set of observer positions:

1. The first participant observes from a position inside the experience of a performative engagement, wherefrom the light zone is explored and the participant speaks from her first-person experience.



2. The second participant observes from a position outside the light zone in continuous discussion with the first, — a referent position as external observer who interviews, reflects on and registers the first-person experience.
3. The third participant observes from an outside position and uses a camera to frame and document the first-person experience likewise from an external position.

Together, the three positions maintain each other in a triangularity of performative engagement in an organised performance situation and generate a shared mode of presence similar to that of the performer's extra-daily state.

The team repeatedly change roles to make sure that each person rotates through all roles several times. The participants synthesise their experience of all three observer positions, and attain a capacity for overviewing the totality of the situation and the relational operations that qualifies it.



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Karin Søndergaard is educated in the performing arts practice and in parallel achieved a scholarly grade within Theatre and Performance Studies. She holds an MPhil in Art and New Media and a PhD in Integrative Arts focused on participation in installation art. She has been continuously engaged in developing, designing and producing public events, exhibitions and stage art performances, – often in cross over genres, and involving the site and the visitors as part of the design of the event. At the Architecture School's Lighting Laboratory she researches in experiential models of daylight analysis and design, and develops on strategies towards the integration of the experience of light as aesthetic and social elements in architecture. Her research explores participatory involvement as an enhanced position of self-reflective and performative engagement, which redefines the lived habitat from the position of experiential narrativation.

## Credits:

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## Photo credits:

Karina Mose, Kjell Yngve Petersen, Karin Søndergaard.



## Endnotes:

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- <sup>1</sup> Rasmussen, Steen Eiler (1959), *Experiencing Architecture*, Cambridge, MIT Press. (pp 10-12)
- <sup>2</sup> Jensen, Marianne Krog (2010) *Space Unfolded – Space as Movement, Action and Creation* in Herforth, Kim & Martinussen, Kent (eds) *How architecture shapes behaviour – mind your behaviour* (2010) Copenhagen, DAC & 3xN. (p 81)
- <sup>3</sup> *ibid* (p 84)
- <sup>4</sup> Mathiasen, Nanet & Voltelen, Nina (2008) 'Light and Shadow' in: Dahl, Torben (ed)(2008) *Climate and Architecture*. London: Routledge. (p 119)
- <sup>5</sup> Madsen, Merete (2005) *Light-zone(s): as Concept and Tool. An architectural approach to the assessment of spatial an form-giving characteristics of daylight*. Article published as EAAE paper.
- <sup>6</sup> Zarilli, Phillip (2007) *Senses and Silence in Actor Training and Performance* in: Banes, Sally & Lepecki, Andre (eds)(2007) *The Senses in Performance*. New York: Routledge. (p 57)
- <sup>7</sup> Barba, Eugenio & Savarese Nicola (2007) 'Pre-expressivity', pp. 255-258, in Keefe, John & Murray, Simon (eds.) (2007) *Physical Theatres: A Critical Reader*. London: Routledge
- <sup>8</sup> The terms pre-expressive and extradaily form part of Eugenio Barba's research within theatre anthropology. Barba developed the field of theatre anthropology as an approach to expert practice in theatre and dance, which enable artistic research across cultures and styles. The research is organised within ISTA, International Society for Theatre Anthropology.
- <sup>9</sup> The term 'experientiality' refers to the emergent experience of performative engagement, and derives from post-structuralist narrative theory as developed by Monika Fludernik (Fludernik, Monika (2009) *An Introduction to Narratology*. London: Routledge).

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- <sup>10</sup> Barba, Eugenio & Savarese Nicola (1995) *The secret art of the performer*. London: Routledge. (p vii)
- <sup>11</sup> Mauss, Marcel (1950) 'Body Techniques', pp. 38-41, in Keefe, John & Murray, Simon (eds.) (2007) *Physical Theatres, A Critical Reader*. London: Routledge.
- <sup>12</sup> Barba, Eugenio & Savarese Nicola (2007) 'Pre-expressivity', pp. 255-258, in Keefe, John & Murray, Simon (eds.) (2007) *Physical Theatres: A Critical Reader*. London: Routledge. (p 257)
- <sup>13</sup> *ibid* (p 256)
- <sup>14</sup> *ibid* (p 256)
- <sup>15</sup> Zarilli, Phillip B. (ed.) (2002) *Acting Re-Considered*. London: Routledge. (p 89)
- <sup>16</sup> Zarilli, Phillip (2007) *Senses and Silence in Actor Training and Performance* in: Banes, Sally & Lepecki, Andre (eds)(2007) *The Senses in Performance*. New York: Routledge. (p 56)
- Zarilli's terms 'external eye' and 'inner eye' refer to the term 'exact eye' coined by Meyerhold (1973), and is connected to the emerging media of moving image in the beginning of the 1900. The film editing technique and its optical construction opened for the use of view-points and perspectives as a concrete montage of modes of reflection in film. Especially the theories of 'montage of attraction', and 'direction of attention' by the film and theatre director Sergej Eisenstein (1947, 1949) proposed dramaturgical techniques based on the specific capacities of the technology of the camera and the montage of multiple perspectives.
- <sup>17</sup> Luhmann, Niklas (2000) *Art as a Social System*. Stanford: Stanford University Press.