Penna, Christina

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Scenographic Contraptions: Designing Uncertainty and Orchestrating Error for the Generation of Participatory Scenography

Christina (Xristina) Penna

Abstract

The method of 'scenographic error' (PENNA 2017a) is used to explain how – and to what extent – a scenographer can design and use the uncertainty provoked in audiences when invited to participate or interact with design-led performance work. The article draws on the premise of the embodied human brain as a prediction machine and the understanding of participation 'as an assemblage of peoples, objects and environments' (HARPIN and NICHOLSON 2017: 12). However, the assemblage is here reframed as a 'scenographic contraption' (PENNA 2013), and the notion of 'contraption' is used as an analytical framework for understanding scenographic processes of designing and experiencing participation and relational performance.

Based on qualitative data (interviews with the audience-participants and images of the work) I explain how in specific works (*WS I*, 2014 and *Hello Stranger East Midlands*, 2023; *WS III*, 2015) I designed a 'rich landscape of affordances' (*sensu* RIETVELD and KIVERSTEIN 2014) using sound, taste, voice, props, objects, materials, technologies, etc., and orchestrated error as a way to manipulate uncertainty, intervene, and in some cases violate the audiences' expectations for the stimulation of novel paths of thinking, meaning-making, and collaborating.

Key words

design-led performance, participatory scenography, affordances, E-cognition, error, inefficient aesthetics, sense/non-sense, collaboration

Content from this paper has been presented at the below conferences/symposia: (PENNA 2017b; 2022). The majority of the materials contained in this paper are part of my doctoral thesis (PENNA 2017a).

Within the current shifting performance landscape of intimate, site-specific/responsive, urban and expansive environments, scenography, 'the manipulation and orchestration of the performance environment' (MCKINNEY and BUTTERWORTH 2009: 4), is also shifting. Audiences are engaged with scenographies that are invisible, can be felt, walked, digested, made, ignored, found, but they can also 'make us' (LOTKER and GOUGH 2013: 3) while scenographies 'are potentiality machines that remain radically open to change, multiples [sic] usages and transformative experiences' (HANN 2018: 133). Sodja Lotker and Richard Gough refer to an 'invisible' scenography that takes place in the mind of the scenographer and is experienced by the whole body of the audience (LOTKER and GOUGH 2013: 5), and this article aims to contribute to the understanding of the more-than-material tools of a scenographer's toolkit.

In participatory performance environments, the audiences' constantly shifting position, raises questions for the scenographer such as: How do I design the distributed experience of the audience? How do I contextualise this distribution? How do I, as a scenographer, work with the audiences' feelings of uncertainty generated by a shifting, distributed scenography? The focus of this article considers the audiences' emotive responses of uncertainty when agreeing to participate, and how that uncertainty and unpredictability might help with designing the de-centring of individualist experience and enhancing collaboration and co-creation when it comes to participatory and relational work.

Harpin and Nicholson (2017: 7) refer 'to the contemporary call to attend to affect – not as a subset of human sensibility but as a relational force that exists between bodies, objects and technologies'. In the above mix I am adding the word *brains* and use a brain-body-environment point of view for the understanding of affect as a relational force – what philosophers of cognition Gallagher and Bower (2014: 235) call 'a cocktail, a mélange of aspects that make up one's affective state'.

Following vast research in the field (MCCONACHIE and HART 2006; PAAVOLAINEN 2009; DI BENEDETTO 2010; SHAUGHNESSY 2013; KEMP 2012; BLEEKER and GERMANO 2014; BLAIR and COOK 2016; MURPHY 2019, and others) I also agree that 4E or E-cognition theory is a valid framework for analysing the multi-faceted nature of theatre and performance. My practice-research tests how design-led performance processes can be informed by E-cognition in order to generate new vocabularies, approaches, and habits of embodied and ecological audiencing and design-led performance making.

4E or E-cognition stands for cognition that is: enactive and ecological (VARELA et al. 1991; THOMPSON 2007; DI PAOLO 2005; O'REGAN and NOË 2001), embodied (CLARK 1997; GALLAGHER 2005), embedded (CLARK 1997; HURLEY 1998), and in some cases extended (CLARK and CHALMERS 1998); it is also understood as affective (COLOMBETTI and THOMPSON 2007). These approaches de-centre the brain's role in cognition from it (the brain) being metaphorically understood as a 'central computer' to it being (metaphorically) understood as part of a 'dynamic biological system' (HUTCHINS 2010: 706).

Affordances

An 'affordance' is a neologism, coined by ecological psychologist James Gibson (1986) from the verb 'to afford' as a way of attempting to explain the potential that an object carries or entails and at the same time the potential or function that another organism finds in that object. The concept of affordance, although it draws from the gestalt psychology concepts of 'valence, invitation and demand' (GIBSON 1986: 138) that a phenomenal object has in relation to a physical object, is different in the sense that an affordance is a quality of an object that is there to be perceived regardless of the phenomenal object's need. As Gibson himself puts it: 'The object offers what it does because it is what it is' (GIBSON 1986: 138–139). Gibson therefore suggests an ecological approach to (visual) perception where perception is not based on stored information; the information is always available to the animal in the world.

According to Bleeker and Germano (2014: 383), 'enactive approaches are useful in understanding how theatre works by starting from the interaction between the affordances of the medium and the perceptual possibilities of spectators'. I will be following this up using E-cognition views that consider affordances 'both relational and a resource' (RIETVELT and KIVERSTEIN 2014: 327; BRUINEBERG and RIETVELD 2014) to reflect on the rich, reciprocal scenographic exchange between the participants, co-participants, and materials. Rietveld and Kiverstein (2014) in particular assume a new perspective of understanding affordances, which is situated in the observation that until now the concept of affordance has been applied without considering the specific context in which the affordances are exercised by each animal. Therefore, in the case of humans, they suggest an understanding of the affordances' 'embedding in sociocultural practices' (RIETVELD and KIVERSTEIN 2014: 326). The scenography-led experiments in this article test the orchestration of dynamic interactions between participants and affordances within the sociocultural practice of design-led performance.

Gareth White (2013: 96) explores the aesthetics of audiences' participation, treating audience participation as art. He is addressing audiences' experience using embodied and enactive cognition and affordances:

> Accepting an invitation means moving into a horizon of participation where temporality and spatiality are reconfigured as affordances that press upon the participant, initiating and shaping responsive activity. We experience it as an atmosphere, and perceive it according to our mood, as much as we understand it in response. (WHITE 2013: 168)

My aim is to contribute to the messier understanding of participation by moving 'away from understanding participation as an invitation and a response and towards a recognition of participation as an ecology of mutual doings and beings' (HARPIN and NICHOLSON 2017: 14); not 'as an action or activity but as an assemblage of peoples, objects and environments' (HARPIN and NICHOLSON 2017: 12). My understanding of the 'assemblage' however looks more like a 'contraption' and I will

further analyse the usefulness of this framework in this article. Here I assume the view that there is 'no sense to make sharp distinctions between participation (active, rebellious, critical) and non-participation (passive, receptive, docile)' (HARPIN and NICHOLSON 2017: 4).

Scenographic contraptions 1

As co-authorship of the audience/user has become the norm in contemporary culture, audience-participants seek more hands-on involvement within events, that is, attending works-in-progress and scratch-nights and having their say, sharing their personal stories and actions as part of an artwork, etc. The landscape however is currently at an infantile experimental stage of how, for example, audiences mediate through social media and AI platforms given the ease with which an individual can manipulate digital data. We are therefore experiencing, I argue, the time of a network-contraption, and an unruly playground in which the individuals are unleashed to experiment, with various creative, ethical, moral, and social results or consequences in the current post-truth, post-COVID socio-political landscape.

Umberto Eco asserts that:

> The moment an artist realizes that the system of communication at his [sic] disposal is extraneous to the historical situation he [sic] wants to depict, he [sic] must also understand that the only way he [sic] will be able to solve his [sic] problem is through the invention of new formal structures that will embody that situation and become its model. (ECO 1989: 143)

I suggest the 'scenographic contraption' (PENNA 2013; 2017a; 2023), as method, which uses error, exposure, and inefficient aesthetics for generating relational actions between materials, space, and audiences and the notion of 'contraption' (PENNA 2017a), imbricated within E-cognition theory, as framework for conceptualising and analysing design-led relational performance practice and participatory scenography. I will be backing up this method and framework below using my own scenography work situated in the in-betweens of design-led, participatory, and relational performance practice.

The practice

Between May 2014 and October 2015, I devised three performance-experiments to investigate the dynamic nature of scenography-led performance practice. My starting point was *Work Space I* (*WS I*), a workshop, in which a number of participants created 'stuff' and co-created a collective artefact whilst conversing (this workshop is outlined in more detail below). The participants' creations and the research insights from *WS I* became the material to devise *Work Space II: Attempts on Margarita* (*WS II*) a participa-

tory, design-led installation. Insights from *WS II* (which I cannot include due to the limit of this article) developed in turn into another participatory installation *Work Space III* (*WS III*). This iterative process forms my methodology of creating participatory scenography and relational performance and in the development of research insights. These insights were captured and developed in an ongoing way of devising the *Work Spaces* and by observing the audience-participants' interaction with the work.

Methodology

My investigation into the dynamic nature of participatory scenography calls for my borrowing from different methodological models and the generation of my own methodological tools. My overall strategy is practice-research. As a base I have used Nelson's epistemological model of PaR, where the 'arts praxis', the 'integration of theory into (professional) practice' (NELSON 2013: 80), is found in the dynamic centre of the reciprocal process between the different types of knowledge: the 'Know-How', the 'Know-That', and the 'Know-What'.

My professional experience as performance designer and practitioner ('Know-How') enables me to devise critical practice methods, where I set the conditions for performance-experiments. For example, my 'scenographic contraption' method that I use as an artist-practitioner is brought into my research and works as a critical practice tool for generating different forms of participation between the audience-participants and the performance environment, producing insights suitable for thinking about scenography in relation to post-representational, contemporary performance culture and participation.

The 'Know-That' mode consists of my scholarly readings on my area of interest; on the intersection between performance and cognitive science; on the role of the audience in performance; and on the overview of the artistic and socio-political context of the time of the study. I analyse audiences' interaction with the materials, space, and co-audience members using action-oriented, agent-environment coupling, social cognition, and embodied predictive processing cognitive theories in order to evolve new scenographic knowledge and practices.

Finally, the 'Know-What' is where I render the 'tacit' 'explicit' (NELSON 2013: 43). This happens through observation and critical reflection on the process, my strategies and methods and the project itself (at each stage of the reflection process). In order to facilitate and systematise the critical reflection, I document each performance experiment. I have put several methods in place for gathering material in each performance-experiment. These include questionnaires given out to the audience-participants, the recording of the performances with different media (photography, video recordings, sound recording), and situating myself strategically during the work for observing or facilitating. My role as a researcher within my performance-experiments is that of an 'empathetic observer' and a 'dialogic facilitator' (BLAIKIE 2000: 52), a composer who is relying on the participators' involvement for the research to bear fruit.

I am combining Nelson's model with the 'hermeneutic interpretative' spiral model, and like Trimingham (2002), I engage with the model's cycle of discovery, planning, testing, evaluating, and re-planning as a practitioner within the model rather than a detached observer (TRIMINGHAM 2002: 59). During my practice-research projects, I am learning about my work, entering a reciprocal dialogue with cognitive science (accepting that I am not an expert in this field), and with audiences, finding new ways of making sense of the research material and questioning the outcomes. In this way I am developing a perpetual pursuit of knowledge related to the 'scene' (the 'stage' and the 'staging' of), and drawing from philosophy and science in order to find answers to my questions regarding performance environments, to generate more questions, and devise iterations between the practical experiments.

After each work therefore, some parts of the scenography are simplified, producing nuanced and subtle aesthetics, while new constructions/activities take form in a less subtle, and in some cases, primitive stage following on from 'stuff' that the audience-participants have generated. These are then developed, after the audience-participants' interaction using my own observation, footage, and the artefacts that were left behind by the audience-participants, creating gradually more connections or different approaches between the layered subtle and primitive nuances in my following works.

In the below works the majority of the audience-participants were 'savvy' audience members who were either affiliated with the University of Leeds, University of Derby, or had an art background/knowledge. Furthermore, the material used in my analysis of the practice focuses mostly on content from post-show interviews I conducted with invited individuals from this specific pool of people. The decision of using 'savvy participants' as part of my research design follows the qualitative nature of the work, as, due to their prior knowledge and/or experience, I was able to draw from their own knowledgeable sense of the work. I made sure to include in my pool of participants individuals coming from both performance and fine art because of my interest in the intersections of these two fields.

Work Space I: a scenographic workshop on consciousness

WS I took place at stage@leeds, University of Leeds, in May 2014 with fourteen participants consisting of third-year undergraduate performance students, graduate students, and members of staff from the University of Leeds, two 'participant-observers' (a postgraduate graphic design student from my department and a sound designer-engineer postgraduate student from the University of York). This workshop was repeated as part of the *Hello Stranger Festival of Performance Design: East Midlands* in January 2023 at Derby Theatre. My methods for collecting qualitative data focused on the use of questionnaires, video footage, and images, and I have secured the participants' consent for sharing these.

The audience in relational and participatory design-led performance are a dynamic element of the system for which the scenographer has to account for, but, as in any

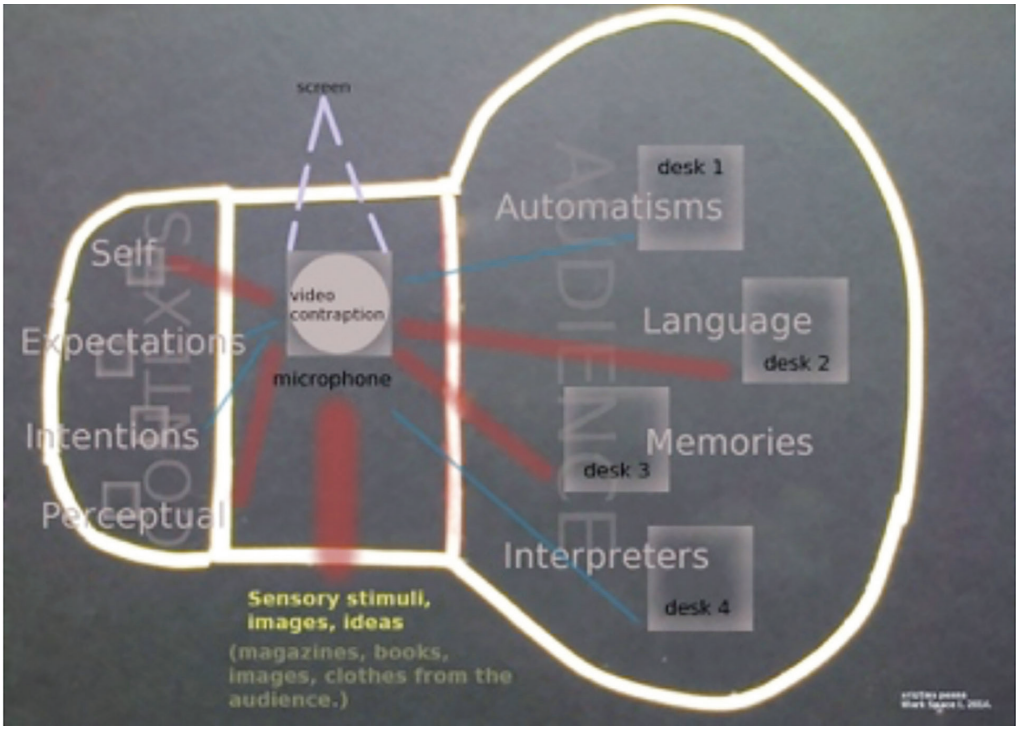

Fig. 1: An imaginative appropriation of Baars's Global Workspace Theory of how consciousness works (BAARS 2007).

theatre or performance event, they cannot predict in advance the intentions, mood, and motivations of the group nor of its individual members. In traditional theatre settings the above design challenge is solved by providing a specific seating area for the audience; however, in relational and participatory performance environments, the audience's position constantly shifts and this affects the design and the meaning-making processes.

The positioning of the participants in *WS I* was determined partly by the arrangement suggested in Baars's Global Workspace Theory (GWT) diagram of consciousness, which was used imaginatively as a ground plan for generating a distributed scenography (BAARS 2007).

According to Baars' metaphor-hypothesis, consciousness is achieved by a distributed society of specialists. It is about something, and that something, the message, although it is broadcasted globally, 'it is interpreted locally in the mind of each audience member' (BAARS 1998: 53). Using this diagram as a starting point I designed an open system, which allowed each one of the participants (students and university staff in the first occasion) to have access to the 'broadcasting area', 'the spotlight of consciousness' at any time, as Baars's model suggests. Anyone of the participants was able to step to a microphone and speak at any time, and what they said was heard by everyone in the studio. The rest of the participants used materials provided to create a collective

Fig. 2: *WS I* – a scenographic workshop on consciousness. The audience-participants were invited to find the affordances in the materials within the socio-cultural landscape of a conversation and create a collective scenographic artefact. Photo: © Xristina Penna.

Fig. 3: *Hello Stranger East Midlands.* The audience-participants were invited to find the affordances in the materials within the socio-cultural landscape of a conversation and create a collective scenographic artefact. Photo: © Xristina Penna.

artefact, and the process of the creation was broadcasted (using a live-feed camera) to all the participants on a large screen.

WS I started with an exercise in a circle using a ball of wool: the instruction of the exercise was to throw the ball of wool to each other while at the same time to not let go of the unfolding thread, thus creating visible 'links/lines of wool' from one person to the other in a circle (Fig. 4 and 5). The material wanted to naturally follow the direction of the throwing action and this posed some difficulty in following the task. This inconvenience was solved by the group who collectively came to the decision, after trial and error, that the best way to overcome the difficulty would be to make a loop with the wool around one's wrist before throwing. The group therefore found a way to embed the affordances of the wool in their circle of interaction, using their own body (wrists, posture, etc.), language (explaining the problem and potential solutions to the rest of the group), and prior knowledge so as to overcome the crisis, reach their collective goal and continue their original task (the throwing). The group's main task was to get on with their activity, and so they economised time by collectively concentrating on ad-hoc problem solving, finding the most effective way of using the affordances of the medium (the wool) in order to continue within their sociocultural practice (the throwing game).

The above illustrates how cognition can be extended from the group of participants to the ball of wool and how the mind is socially distributed between the members of the group, particularly in moments of crisis or uncertainty – when a mismatch of expectations occurs – in order for them to collaborate with each other and resolve that crisis.

A number of open-ended written guidelines in *WS I* were placed on four tables and worked as a way to get the participants started by asking them to do some tasks in relation to what the person on the microphone was saying. For example, they were asked to close their eyes and be guided by another participant to draw using charcoal; to respond with painting to the feelings provoked by what was said by the central voice; to make a little sculpture using the materials on the desk in response to the voice; to create their own language by choosing words and recording those using a voice recorder (Fig. 6 and 7). Once they made something that they liked, they added this to the collective artefact. The written guidelines therefore worked together with the affordances provided by the raw materials of wool, clay, etc., and what was said on the microphone towards the manufacturing of 'something', 'anything' that would kick-start this cycle of practice-research that I have named the 'Work Spaces'.

With time, new affordances of the materials were discovered and perceived by the participants who started unfolding, unrolling, cutting, filling, covering, grasping, sticking, tasting, and/or throwing them. In terms of untangling the elements of *WS I*, I am referring to Bruineberg and Rietveld's 'terminology of skilled intentionality', where a 'landscape of affordances' is defined as 'the affordances available to the whole spectrum of abilities available in our socio-cultural practices' and a 'field of affordances' as the 'affordances that stand out as relevant for a particular individual in a particular situation' (BRUINEBERG and RIETVELD 2014: 2).

Fig. 4: *WS I* – a scenographic workshop on consciousness. The red thread activity. Photo: © Xristina Penna.

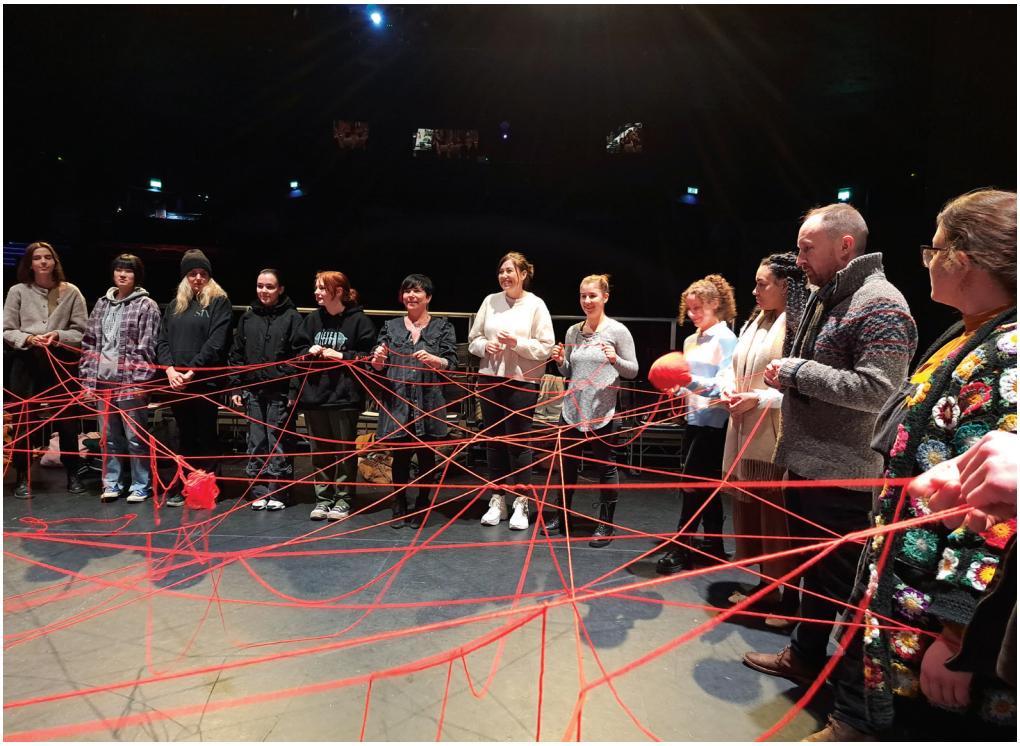

Fig. 5: *Hello Stranger East Midlands.* The red thread activity. Photo: © Xristina Penna.

Fig. 6: The different stations of creation. Photo: © Xristina Penna.

Fig. 7: The different stations of creation. Photo: © Xristina Penna.

Fig. 8: The 'washing machine'. Photo: © Xristina Penna.

Participant A1 shared their experience by writing, 'I used, clay, string, fabric. I made a washing machine with a line of clothes coming out of it. It was whimsical' (Fig. 8). They then explained that they made a washing machine because the story (what the central voice was talking about) included washing. In the case of participant A1 the affordances that stood up as relevant, the 'field of affordances' along with the stimulus of the 'story', guided them to select the materials that appeared relevant at that stage to respond to the specific task: the making/manufacturing of an object. There was a certain amount of distilling of information on the part of participant A1 that occurred as an action-oriented haptic dialogue between the participant and the surrounding affordances. Participant A1 created a 'washing machine' but the shape, size, and design of the specific object were determined by the sensorimotor 'conversation' between the participant, the experience (listening to a specific 'story'), and the materials available. The active doing of audience-participant A1 in the specific example during *WS I* is haptic and is largely impacted by the fact that it is placed in a dynamic interplay with the landscape of affordances: what the central voice said (a story related to washing), the materials and objects in the room (clay, string, fabric, microphone, lights, etc.), their mood/state (described by the participant as 'whimsical'), and the co-participants (how they occupied the space, what they said, and other aspects of their presence in the space that are difficult to pinpoint due to the complexity of the system).

Another observation from the specific workshop was a 'contagious scenography' in which certain responses to the affordances (ways of unfolding the thread, tying knots,

cutting pieces of paper) and motifs (e.g., the drawing of an eye) gained popularity and were repeated (Fig. 9 and 10). This 'contagious scenography' can be considered not only an ecological activity but also one that is socially distributed and embedded in the sociocultural practices of the group, and one that drove the system of *WS I* forward.

My aim was to create a context-sensitive system that was not designed to function like a factory, for example, where the main aim, the final product, is of no or little interest to the individuals who built it. It was rather designed in such a way so that each person who contributed to the 'central spotlight' was aware and interested of the impact their contribution could have on the overall result. Looking at the data, one of the participants described the scenographic system as 'a machine or a factory, but a very inefficient one', while some others referred to it as 'a playground', a 'classroom', 'an outdoor space', and 'an arts and crafts community centre'. The participants found some sort of structure in the activity, but mostly a structure like an educational setup, for example, that provided them with permission or freedom to fail. The important thing was to make something but it did not matter what they made. Making became an extension of their conversation with each other and what they made became the material of observation in the workshop and was later used by the scenographer for the next stage of the project (Fig. 11).

And so, in *WS I*, the priority is given to the ingenuity and inventive playfulness of a collective, dialogical creation between participants, space, and materials over the effectiveness of the individual internalist artist. This makes for an open environment for the participants to unite, compete, or even conspire with their fellow audience members, working with materials and with their bodies (movement, speech) in order to make sense, based on the experience that they bring into the work. As a creator, on the other hand, I rely on them and depend on the unknown elements they will bring into the piece as a result of their agency.

WS I tested the ways in which sense-making was made by the dynamic interplay within a landscape of material (e.g., red thread, paper, etc.) and immaterial affordances (e.g., voice) which 'scaffold the individual's actions' (BRUINEBERG et al. 2016: 14) (e.g., appropriating, making, etc.) within a sociocultural practice (the workshop). The interim insights which contribute to the understanding of the more-than-material tools of a scenographer's toolkit can be pinned down to the observations that uncertainty and unpredictability helped with designing the de-centring of individualist experience to enhance collaboration and conversation between participants. In moments of uncertainty participants collaborated and conversed to problem-solve. Another insight was the audiences' appropriation of actions and motifs of others as a way to overcome uncertainty giving way to a 'contagious scenography'. The repetition of certain motifs, patterns, or actions gave the scenography a certain aesthetic coherence although an unruly one.

The question that this workshop raised and was followed-up in the next phases of the research, was to what extent can the unruly aesthetics of the final result be refined and orchestrated using uncertainty/unpredictability whilst keeping at the same time the co-creative and collaborative relation of the audience-participants with the work.

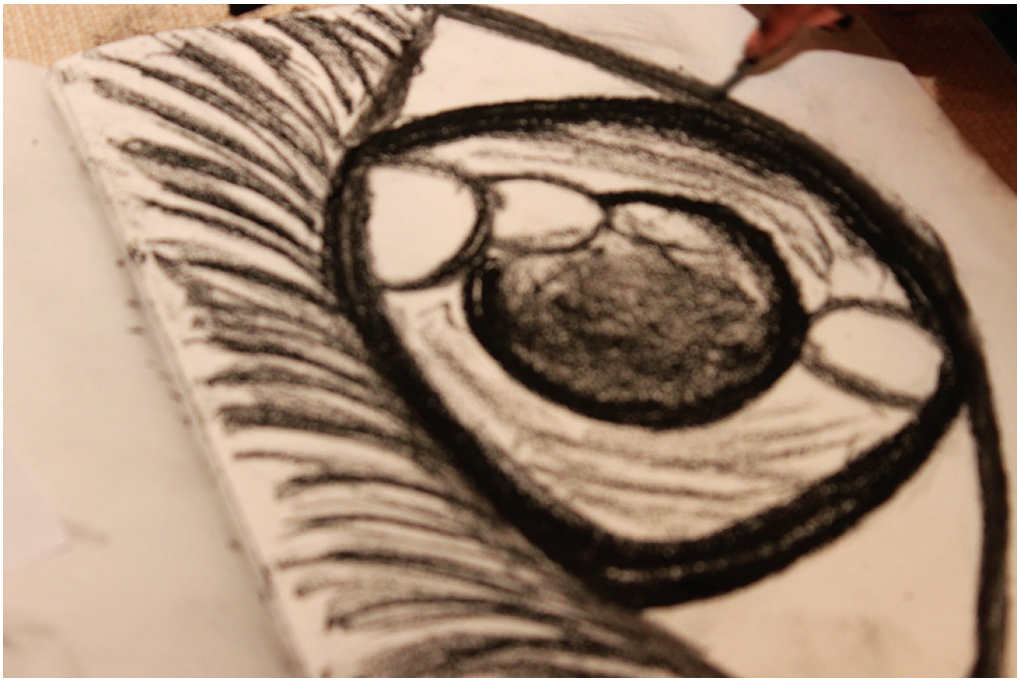

Fig. 9: A contagious scenography. Photo: © Xristina Penna.

Fig. 10: A contagious scenography. Photo: © Xristina Penna.

Fig. 11: *Hello Stranger East Midlands*, iteration 2 at Nottingham Playhouse. Photo: © Xristina Penna.

In order to respond to this question, I will unpack below the method and framework of the scenographic contraption and the method of scenographic error.

Contraptions

The OED's definition of 'contraption' is 'a contrivance, a device (with suggestion of ingenuity rather than effectiveness)' (OED 2024). A contraption is therefore a kind of a prototype invention, and in order to be named a contraption something needs to 'feel/look strange, awkward or unnecessarily complicated' (NEW OXFORD AMERICAN DICTIONARY 2015) to the viewer.

An example of what contraptions are broadly understood to look like can be seen in the illustrations of Heath Robinson (HEATH ROBINSON MUSEUM 2023), who presents the viewer with detailed complicated mechanisms, drawing the attention to both the process of the making (of something) and the thing itself. Contraptions of this kind provoke the viewer to question or think: How does this thing work? What is the function of its different parts? Why did the person in the illustration make this apparatus the way they have? This is silly; this is superfluous; this is inefficient; this is funny, etc. This visual exploration from the part of the viewer is also embodied. The capacity to move, the capacity to touch, the capacity to smell, and our sensory and motor-nuanced pathways are involved in our experience of seeing, and therefore we engage in a sensorimotor conversation and correspondence with what we choose to see to an extent that philosophers, such as Alva Noë (2004), support that all perception is action.

This embodied response may also be extended between the viewer and the artist who created the complex work as seen in the case of the Japanese 'useless inventions' of Chindōgu (INTERNATIONAL CHINDOGU SOCIETY 2023). Chindōgu means an unusual or weird tool in Japanese and these tools are defined as 'unuseless inventions' (INTERNATIONAL CHINDOGU SOCIETY 2023), meaning that they are created with solving a problem in mind but instead, by putting them into use, they create other problems, therefore prioritising ingenuity over efficiency, and for this they are rendered unnecessary. By viewing images of Chindōgu, one may instinctively react with laughter or puzzlement as they encounter the absurdity of the operation of these objects and simultaneously engage in an imaginative conversation with the person who came up with these original ideas: What does the person who made this want me to do with it? Aha! I see what you are trying to do here, but it will get me nowhere. I can definitely see myself using this 'butter glue stick'! How did nobody think of this before? Laughter (maybe).

Contraptions are deliberately designed in such a way so as to partly alienate the viewer/user and engage them in an exploration and questioning of the number of novel possibilities for interaction. The contraption provides a compressed meaning, which needs to be decompressed in a non-linear manner by the viewers' embodied minds. Each viewer is therefore invited to unfold a unique rhizomic meaning from this

complex experimental setup and simultaneously navigate it; this mentally navigated experience is, as outlined earlier, also a sensorimotor, embodied one, despite the fact that the viewer may not be physically participating.

Sense/Non-sense

Contraptions are good at breaking an anticipated pattern by producing nonsensical formations. According to neuro-philosophers Cappuccio and Froese:

> If non-sense often turns out to be just funny, rather than upsetting, is because humor and non-sense share similar cognitive systems of reaction. Humor involves surprising associations, bizarre juxtapositions that stimulate novel paths of thought by violating the audience's expectations. (CAPPUCCIO and FROESE 2014: 16)

In the field of Science, the capacity that art and literature have in 'unleashing the power of non-sense' has not gone unobserved, say Cappuccio and Froese (referring particularly to the surrealists), and they add that '[a]rtists and playwriters know well that it is possible to play with this coupling, intentionally manipulating it to free certain desired effects' (CAPPUCCIO and FROESE 2014: 28). Theatre scholar Di Benedetto (2010: 11) observes that 'when artists make use of patterns, they can attract the brain's attention by violating that pattern'.

The violation of the audience's expectations, for the creation of meaning, sense-making, and context, is at the centre of my performance praxis for generating landscapes of tension, governed by the notion of contraptions. Cappucio and Froese rightly observe that 'failing to recognize an object's use and perceiving it as unfamiliar or surprisingly absurd are two different experiences that do not imply one another' (CAPPUCCIO and FROESE 2014: 18). Therefore, care needs to be taken when generating and investigating ways with which this negotiation between audience and performance environment could be orchestrated and refined as part of the contraption experience, so that the audiences do not completely fail to recognise the work, get lost in the messiness of the work, and therefore remain disengaged altogether. The aim is to engage the audiences with the work's absurdness and unfamiliarity in-between sense and non-sense.

Scenographic contraptions 2

Framing scenography 'as contraption' admits that it is not a finished product but an exposed theatrical apparatus in process. Although contraptions may be unruly at times, they exist betwixt and between sense and non-sense, and by being essentially mock-ups they communicate both a particular intention to a user/audience/viewer and at the same time the process by which they were created. Therefore, the messiness

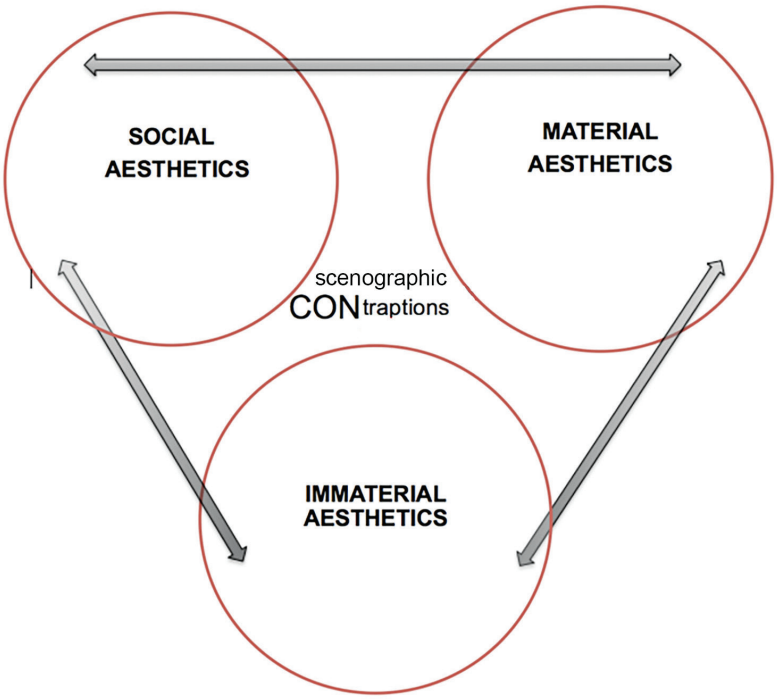

Fig. 12: A non-binary understanding of scenographic contraptions oscillating between the material, the immaterial, and the social (amended from PENNA 2017a: 82).

and unruliness of participatory and relational performance practice may be controlled and refined with the conceptualisation of participatory scenography as contraption, due to the intentionality that this framework entails.

The 'scenographic contraption' (as structure) and the analysis of scenography as contraption (framework) due to its unfinished, inefficient aesthetic aims to invite the audience to question, explore, problem-solve and add/contribute, and in some cases collaborate or compete across material, immaterial, and social aesthetics. As shown in Figure 12 (PENNA 2017a), I investigate a non-binary understanding of the scenographic aesthetics of material, immaterial, and social where the scenographic contraption (both as structure and as framework) is placed in the centre.

Eror

Those of you reading this now and who are familiar with the English language and its spelling, may not be able to continue reading with the same focus. This is because the misspelling of the word error as 'eror' in the heading above has maybe interfered with

your prior knowledge, your expectations, and predictions, and this interference has (for some more than others) oriented part of your attention to that error. The premise of predictive processing (PP), suggests that brains are essentially prediction machines (see FRISTON 2011; CLARK 2013; HOHWY 2013) and may be understood to an extent by the 'eror' example given above. According to predictive processing, brains are pro-active, busy with constantly predicting their own states; therefore information flows forward. The predictive brain tries to create a neurophysiological pattern that matches the external world, and when this match is made, the brain does not need to do anything; however, when the match is not made, then this error will drive the prediction system forward in order to find a match.

Below is an example given by Andy Clark (2015) to show how the levels of the hierarchical prediction could be fleshed out. Imagine you are playing a game between two people, person One (the higher predicting level) and person Two (the lower level). One is asked to describe a room where Two is in. One, who is not in the room, knows the room as they have seen it or been there before, but now cannot actively view it. One therefore describes the room by recalling its features by saying: 'There's a vase with yellow flowers on the table in front of you.' If the case is correct, then Two, who is in the room and can see it, does not say anything in response (silence), but if a piece of the information described is wrong, Two will point it out. So, for example, if the flowers are not yellow, Two will say: 'The flowers are yellow', therefore communicating only the error. One now knows that their prediction that 'the flowers are yellow' is wrong, and they need to rephrase correcting the error of their previous phrase (i.e., using the next likely colour and saying 'The flowers are red') (CLARK 2015: 5). If there is silence from Two, then there is a settlement in the description between One and Two.

Error therefore in PP is not equivalent to a mistake, but to a mis-match of expectations. This is very much the case with the scenographic contraption method, where the predictive scenographer (PENNA 2017a: 70) harnesses prediction error to intentionally design a mis-match of expectations and surprises (scenographic error) embedded in the work and anticipates the bottom-up embodied interactions and interpretations of these scenographic errors by the audience-participants who navigate the work. 'Scenographic error' is designed deliberately by the scenographer in the scenographic contraptions to generate possibilities of interaction, affect and thinking. But how do we orchestrate scenographic error?

In the section below, I will explain how I applied insights from the previous *Work Spaces* related to the more-than-material tools of a scenographer's toolkit in developing *Work Space III: Phishing Things Together*, 2015. In this scenography-led participatory installation, I designed a 'rich landscape of affordances' (*sensu* RIETVELD and KIVERSTEIN 2014) using sound, taste, voice, props, objects, materials, technologies, etc., and orchestrated 'prediction error' (*sensu* CLARK 2015) as a way to manipulate uncertainty and unpredictability, intervene and, in some cases, violate the audiences' expectations for the stimulation of novel and unexpected paths of thinking, meaning-making, and collaborating.

Fig. 13: *Work Space III: Phishing Things Together.* One audience-participant referred to it in the post-show discussion as 'a playground for adults'. Photo: © Alaena Turner.

WS III: Phishing Things Together

> We are finding parts of ourselves, playing, playing with the light, unexpected events [...] wood, fabric, cameras, sound equipment, and a bit of alcohol. Shades of red, grey, it is pretty dark, you cannot see much. It provokes you in terms of fiction. (Participant S3, practice-research project *Work Space III: Phishing Things Together*, University of Leeds, October 2015)

Work Space III: Phishing Things Together (the predictive brain) took place on 20 October 2015 at Live Art Bistro (LAB), which produced and programmed live-art and performance events in Leeds, UK. The installation consisted of 'scenographic contraptions', which were designed using inspiration from materials and responses from audience-participants from previous works (*WS I* and *WS II*) and from their Facebook pages (with their consent). Using set, sound, costume, light, cocktails, prints, pizza, and a piñata, the environment generated a number of affordances; and with the use of immaterial aesthetics of drawing and writing, drinking, eating, chatting, presenting, dressing, and so on, the work created further possibilities of interrelations open to constant reconfiguration by the audience-participants (Fig. 13, 14, and 15).

The people who were involved in this project were myself (the principle investigator), three artist-participants, and the audience-participants (around 25 in total), who were mostly members of staff and students from the University of Leeds, peers, friends from Leeds, friends of friends, and some people invited by LAB. This was a three-hour durational installation where I had the role of the observer

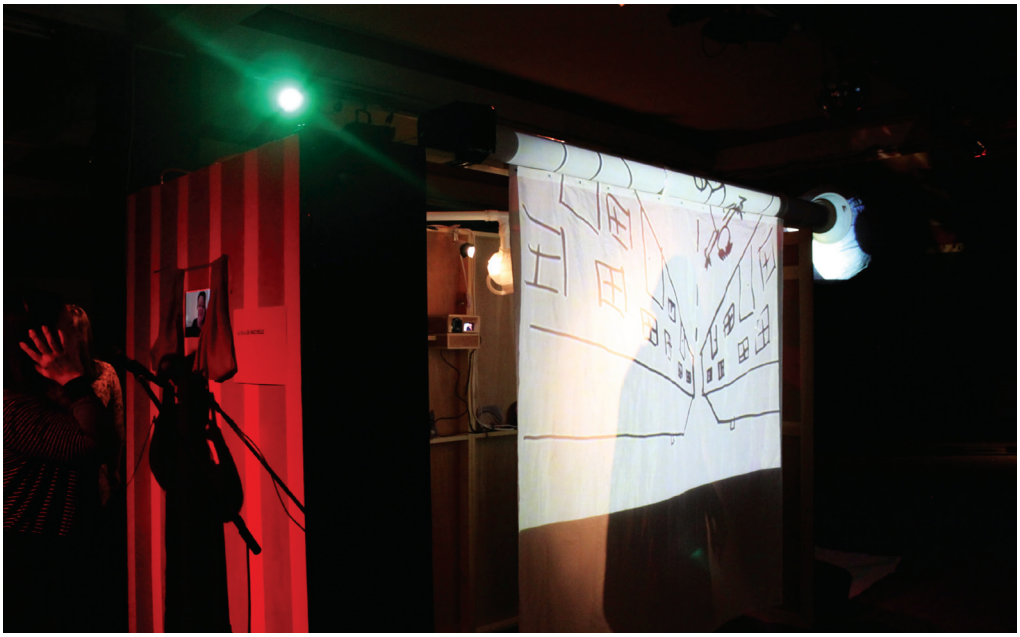

Fig. 14: *Work Space III: Phishing Things Together.* One audience-participant referred to it in the post-show discussion as 'a playground for adults'. Photo: © Xristina Penna.

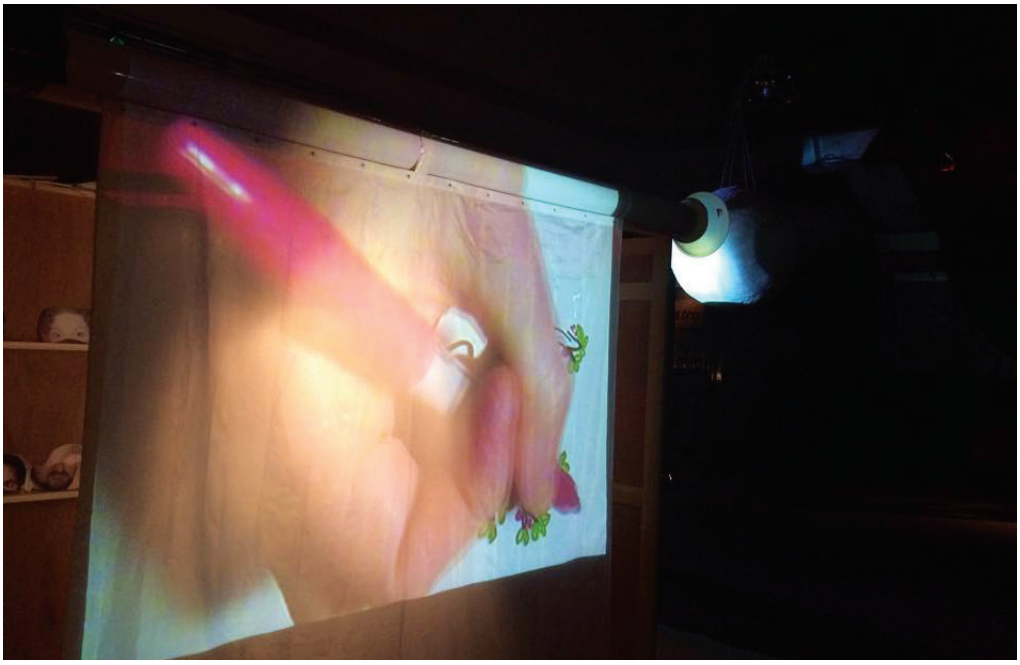

Fig. 15: *Work Space III: Phishing Things Together.* One audience-participant referred to it in the post-show discussion as 'a playground for adults'. Photo: © Xristina Penna.

and the 'dialogic facilitator' (BLAIKIE 2000: 52) between the work and the artists-participants. The audience-participants were free to drop in and out at any time. Apart from questionnaires, post-show sharing (Q&A), and post-show interviews, I also devised a method for capturing audience-participants' recorded reflections during their experience in the space. This happened with the use of Skype, where the audience-participants talked with a number of people known to me (friends and family members), who had a scripted role in asking the participants what the performance was about. The responses of the audience-participants were recorded and formed part of my data.

The affordances in the installation were designed not to be evident, but rather layered. On the other hand, they were not hidden to create a hierarchy between the creator of the work, who knows where something is hidden, and the novice, who does not know, but rather the idea was to create an enfolding-unfolding meaning-making experience in which the audience-participants were asked to locate, explore, or make up the nodes-associations, to navigate in an inventive manner without there being a right or wrong response to the contraption. The connections and associations therefore that were made by the audience-participants between the available stations were driven by an on-going sense-making process (or non-sense-making process) based on their previous knowledge, prediction on multiple landscapes of affordances.

Referring to social geographer Doreen Massey (2005), Zupanc Lotker (2015: 16) calls for the need to think about scenography 'as designing the possibilities of interrelations, as something that is always in flux, something predicated upon the existence of plurality'.

WS III's context therefore was made out of affordances, that were the scenographer's tool to try and predict the audience-participants' responses in order to create 'possibilities of interrelations' (ZUPANC LOTKER 2015: 15). The aim was the development of subtle webs of affordances and even the co-invention of new ways of interaction that the designer together with the creative team (sound designer Ben Eyes and lighting designer Katherine Graham) may not have thought about previously. I will give an example below.

The 'scenographic contraption' of the treads (Fig. 16) was at precarious moments very loud and aimed to attract attention. Sounds of clapping, loud pop music, and booing were heard intermittently via two speakers on both sides of the treads, and it was lit by a spot-light to give the impression to any audience-participant who was on the steps of being on stage as a front-man/woman in a band (Fig. 17 and 18) and thus generating different feelings to the person who decided to put themselves up there, and to those watching.

The area 'on stage' of the treads was restricted aiming to make the audience-participants feel vulnerable, and the height on the opposite side of the steps was just at an uncomfortable level for jumping (C2 described it as 'dangerous' but 'not in a threatening way'). Several audience-participants dealt with the tension that the affordances of the plinth emanated by deliberately avoiding it: C4 said she thought that if she stood on the steps, she did not want to do that. At the same time, others (as seen in

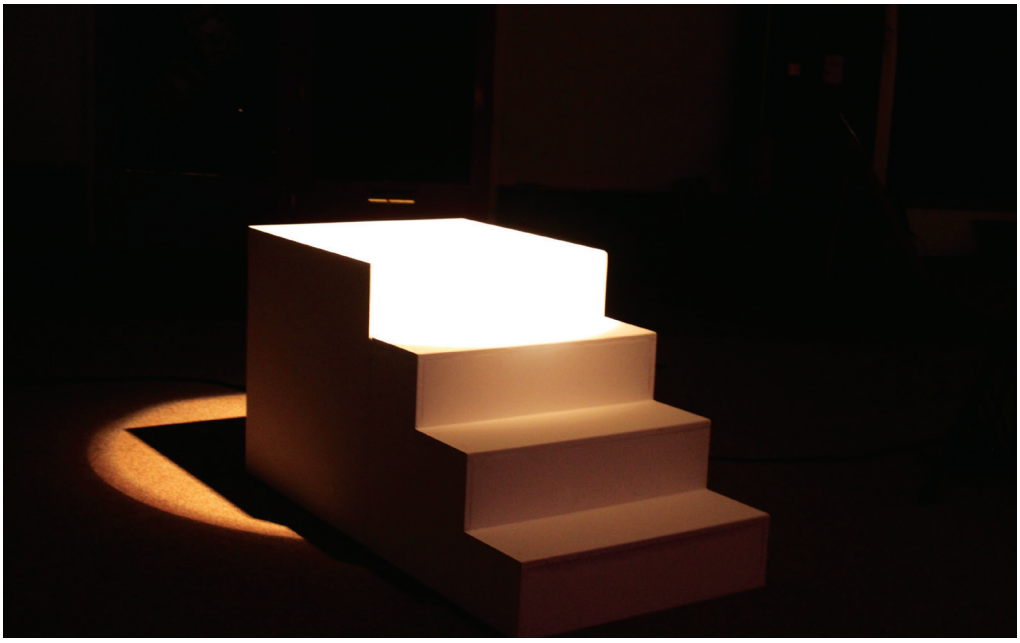

Fig. 16: The treads. Photo: © Xristina Penna.

Fig. 17: Audience-participants interacting with the treads. Photo: © Alaena Turner.

Fig. 18: Audience-participants interacting with the treads. Photo: © Alaena Turner.

the images above) engaged with it to resolve the tension or enjoy the experience: S3 on Skype said, 'there were the steps and I went on to bow. It is part of my job, I am a pianist, so I did it'.

However, once up or in a tactile relation with the plinth, another field of affordances was discovered by some. Having subwoofer speakers inside, the treads, depending on the strength of the bass sound, would vibrate offering a mechanoreceptive sensory experience to the audience-participants. This quality was deliberately designed in the treads by the creative team and discovered gradually by the audience-participants who decided to engage with it, and later told others about it. C7 said they spent some time with the treads, and found a way in which they could understand the vibration from different parts of their body 'fascinating'. When they went on originally, they were expecting a sound experience, and the vibrations were not particularly strong, but then it 'kicked in' and they realised that 'the experience of standing in that spot wasn't about what (they) thought it was about in an experiential way'. From afar it seemed about 'one person presenting themselves becoming a statue, a stage whatever', said C7 during the interview, but the vibration moved the attention circle (they reference Stanislavsky here) to their feet, and they wanted to understand what their feet were doing. They then went and 'recommended it to people' like to the audience-participant in Figure 19.

The person (Fig. 19 and 20), who was recommended the treads (C7), engaged with it, finding a different field of affordances. They mentioned 'the physical feeling of

Fig. 19: Audience-participants interacting with the treads. Photo: © Xristina Penna.

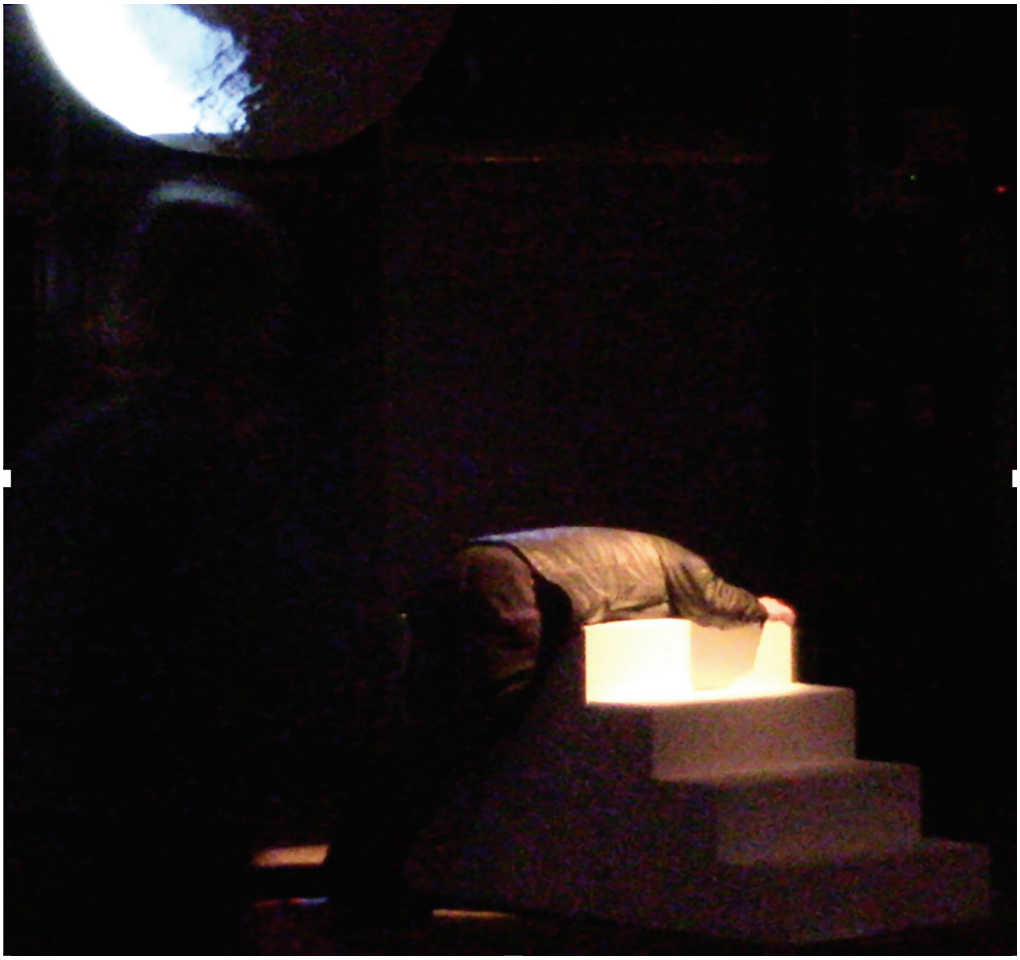

Fig. 20: Audience-participants interacting with the treads. Photo: © Xristina Penna.

the sound, and how it transferred in the body', an invitation to 'play with the sound', changing depending on where the body was, ranging from a relaxing experience to an earthquake shaking you. They also said they were aware they were being watched, and how other audience-participants wanted to capture this moment on their phones or sat and watched this ambiguous performance. C5 said that they recalled liking it when participant C7 was on the treads; they found it unusual and interesting to watch because of the ambiguity: 'the man hugging the plinth', they thought it was a performance, and 'that he was experimenting' (C5).

What is of further interest here is the error response that was generated by the mismatch of the audiences' expectations, and the use of what I call a disciplined surprise for the creation of meaning. The aim of the design therefore was to provide an escalation of layers of familiarity and layers of mis-matches in order to continually but subtly

reframe the experience. Andy Clark (2023: xv) asserts that when the brain strongly predicts a certain sight, a sound, or a feeling, that prediction plays a role in shaping what we seem to see, hear, or feel. Emotion, mood, and even planning are all based in predictions too and his study of the predictive brain suggests that if one reframes a situation they can alter those predictions.

The scenographer cannot enter the autonomous system that is an audience member to alter their predictions, because a person is an operationally closed system, with self-organising processes; however, they can intervene in the environment of the audience and by re-arranging/re-framing the environmental affordances we can change the actions and the perception (mood, emotions) of the individual audience. Actions change as one learns to cope with new conditions and situations. And, as one's actions change, so too does one's sense of the world (VARELA et al. 1991: 164). In the case of the 'scenographic contraptions' the re-framing of the environmental affordances does not only happen by the artist (or creative team), but the method itself allows for the audience themselves to re-frame the environmental affordances for other audiences enhancing the co-creative and collaborative nature of the work. My aim was not to present the unexpected and the surprise out of proportions, but aimed to calmly but assertively orchestrate the playfulness of the scenographic interrelations. This aim was indeed co-dependent and co-originating with the audience-participants, their mood, their emotions, and so the example with the person in Figures 19 and 20 demonstrates how the creative team provided the potentiality for this interaction to occur but the unfolding of the response came from the audience-participant who was in turn 'recommended' the specific affordance by a co-audience-participant.

'Scenographic error' has been developed in the *Work Spaces* as one of the immaterial tools of scenography and is orchestrated through a 'disciplined surprise', which at an initial stage calls for a certain level of skill or willing engagement from the part of the audience-participant. For example, a pen and paper lie on a table, because the scenographer 'predicts' that an audience-participant will be guided to draw or write, and this constitutes the 'disciplined surprise', an unwritten guideline; the audience-participant acts on the affordance of the pen and paper and draws. After recognising that the above is working the designer goes on to evolve the affordances and creates a system where, for example, what is drawn by the audience is projected on a screen (Fig. 14 and 15). The unwritten guideline provided by the initial affordance is present; yet another layer of affordance, that of the projection, is established in the negotiating language between the audience-participant and the designer, when the former encounters the 'scenographic contraption'. Furthermore, what is drawn by the audience-participants is not determined by the scenographer and therefore that action of drawing and the drawing itself may provide a further 'scenographic error' and possibility for further associations for other audiences.

What additionally 'scaffold(s) the individual's actions' (BRUINEBERG et al. 2016: 14) within the sociocultural practice of this participatory work, is the watching of the actions by fellow audience-participants who witness the process and affect the boundaries of these actions. The hidden potentiality of the treads in *WS III* would not have

been exposed if the system did not allow for the audience-participants to converse with each other and be 'recommended' things or perpetually witness what the other is doing. Indeed, in *WS III* the work allowed and in cases encouraged conversations to happen between the participants and this social exchange was key for driving the system forward within this uncertain landscape. The audience-participant in the case above went deliberately to explore this layer of the vibration after hearing about it. Their engagement with this layer of the work produced the dance-like interaction of that audience-participant and unravelled another performance, which other audiences were comfortable to sit and watch, whilst this watching affected the 'performance' itself.

Conclusions

The scenographic contraption as method initiates a playful relation with the audience by embedding in the design 'prediction errors' (mis-match of expectations, unpredictability, etc.) that invite the audience to resolve these by continuously re-framing their expectations of a certain experience and conversing with their co-audience-participants for resolving any tensions. 'Scenographic error' as method is designed deliberately by the scenographer to provoke a mis-match of expectations to the audience and generate possibilities of interaction, conversation, collaboration, affect, and thinking.

The contraption as framework aims to contextualise further the 'peculiarities' (HANN 2018: 16) of scenography and to contribute to a better understanding of its 'logic and distinctive rules' (LOTKER and GOUGH 2013: 3). The scenographic contraption steers the making process towards an (unruly at times) organisation of the work, operating betwixt and between sense and non-sense. In the examples I have outlined in this article, I designed a 'disciplined' process, using the method of the scenographic contraption, which is itself an undisciplined notion, meaning that it does not follow the cookie-cutter idea of imposing a shape or having only one shape, but allows for flexibility in creating top-down, bottom-up, and distributed interactions and interpretations on the part of the audience.

Gradually in this structurally determined, context-sensitive environment, associations begin to take place and shape the development of what I refer to as the 'genuine means': the in-the-moment experience of the audience with the design and their co-audience resulting in the co-creation of the work. This happens through invisible guidelines that are afforded by the design itself and ideally the audience believe that they have invented their own scenographic language. The audience overall should not feel forced or over-stimulated, and not completely lost throughout the duration, as they may become overwhelmed or lose complete interest (in which case the scenographic contraption allows them to become observers, sit on one side or leave).

By designing and learning from this uncertain landscape, my research and practice suggests methods of producing and frameworks of conceptualising performance that is beyond-representation. The above works observed the dynamic interactions between

participants and affordances within the sociocultural practice of scenography-led installations designed as a multimodal, non-linear, non-hierarchical models of collective creation so that scenography may emerge rather than be imposed and can generate collaborations between materials, brains, bodies, and world(s).

By designing uncertainty within the environment and by orchestrating error using the materiality of the space the scenographer re-frames and in some cases violates the audiences' expectations for the stimulation of novel paths of thinking, meaning-making, socialising, and collaborating. The scenographic contraption as method and framework in the above practical examples contributes to the understanding of the 'peculiarities' (HANN 2018: 16) of scenography and responds to the question of 'how do scenographies make us?' (LOTKER and GOUGH 2013: 3) by using the more-than-material tools of a scenographer's toolkit such as uncertainty, mis-match of expectations/unpredictability to help with designing the de-centring of individualist experience, and enhancing conversation, collaboration, and co-creation.

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Dr. Christina (Xristina) Penna

University of Derby
College of Arts, Humanities and Education
Discipline of Music, Performance and Therapeutic Arts
15, Theatre Walk, Derby DE1 2NF, Great Britain
x.penna@derby.ac.uk
ORCID: 0000-0002-2982-7875

Christina (Xristina) Penna is a Lecturer in Performance, University of Derby. She is a practising scenographer with over 15 years of experience in a variety of performance design and practice working with mixed-media, inefficient aesthetics and material stemming from the audience to create hybrid collaborative performance installations and actions. Her practice-research investigates how participatory performance processes can be informed by neuroscience theories of human consciousness and cognition in order to facilitate collaborative thinking through materials, space, and audiences. She has contributed to international academic conferences such as the Cognitive Futures in the Arts and Humanities, Worlding the Brain, IFTR, ISTR, PSi, OISTAT, and has published articles (Intellect Books and Performance Research Books). She is currently co-convening the Scenography Working Group of the International Federation for Theatre Research.