

Design for Breakdown

- tools and methods for responsive Stage Design.

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0. Introduction

In the (post)modern theatre the notion of *text* has changed. From reflecting a linguistic, previously written dramatic text, a script or a play, the term now reflects all the signs formed by the scenic images and actions, these signs being audio-visual, olfactory, tactile etc. according to the chosen media. Together they constitute *the text*.

Space, objects and performers, as well as lighting, sound, music and spoken or written words, the static and moving images, the motion of bodies and stage elements, are all seen as equal means of expression and as objects for the attention of the audience, the play being founded on shifting *subject/object relations* on the stage and between the stage and the audience.

In some cases this not only breaks the conventional borders between fiction and reality, but also that between stage and audience space and between audience and performer. These borderlines may actually be dissolved, introducing notions such as *live art, interaction and audience participation*.

As an audience member you can no longer expect to be seated on a chair, but must actively be part of the formation of expressions. It can no longer be taken for granted or even intended that every member of the audience is experiencing the same *text*.

This tendency is also mirrored in the production of the play where all participants are seen as members of a team, working together on equal terms. The dramatic linguistic texts are often created through improvisation and discussions in the production team, known as *devising theatre*.

This is not just another example of artistic and avant-garde ensemble theatre, as we have known it throughout the twentieth century, but a qualitatively different way of creating stage art. This kind of stage art is however not new to mankind. On the contrary you might say, that the rigid construction of formal genres and the Aristotelian drama theatre, which dominate our conception of the theatre is only 2500 years old.

It is our thesis, that the artistic method, which the production team must employ in order to create this kind of theatre, can be described and explained with a background in the theory of the puppet theatre.

As with the modern theatre, modern puppet theatre has broken down old conceptions, and new forms have established themselves under names such as *visual theatre, the theatre of materials, object theatre, animation theatre or figure theatre*.

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For all these modern forms, as well as for the classical puppet theatre where the puppeteer is hiding behind a screen, the theatrical acts are based on changing *subject/ object relations*: In the theatrical act with the puppet the performer as a subject choose to become "an object" (an engine) for a *playing material*, whereby the object in different ways can function as a means of expression, becoming a representation of an "independently acting subject". At this point the classic notion of the art of puppetry meets the modern notion of performance art.

This insight is placing qualitatively new demands on educations within the different specialized disciplines of the stage arts. It requires new types of collaboration and new tools to create a theatrical stage, which is in constant change, not only in the production process, but also in the presentation for the audiences and in the direct physical interaction with them. The elements of the stage design must individually and in combination be able to function as *playing material* for the performer and in some cases for the audiences as well.

The *RespOnce* project deals with stage design as a fundamental basis for the development of actions on stage, in its functions as partner and opponent to the live performer and for an active and creating participatory audience.

The *RespOnce* project emerged from a collaboration between *Jorgen Callesen, Katrine Nilsen* and *Jette Lund* about practice based research into new concepts for stage art. Since 2001 we have established and carried out several projects with various partners for example *The Family Factory*, which was an experimental performance with virtual puppets, or *The Performance Animation Toolbox* concerning the development of digital media representations and responsive stage design. (Callesen 2003, Callesen 2005 and Callesen, Kajo and Nilsen 2003) *Jette Lund* has mainly served as a dramaturge and analyst contributing with insights based on her theoretical knowledge and practical experience within the modern puppet theatre.

1. A theoretical background

1.1 The modern puppet theatre as a conceptual model for responsive stage design

(Jette Lund, Jorgen Callesen)

The subject/object relation

Performance theatre resembles the puppet theatre in the important aspect of the explicit use of changing *subject/object relations*. This phenomenon is not very well described in the literature about performance art and is difficult to explain because it requires understanding of the philosophical and psychological notion of the *subject/object relation*. In this article the use of the terms "*subject*" and "*object*" does not refer to the popular English use, which has connotations such as "*theme*" and "*intention*".

With *subject* we refer to the experiencing, recognizing, acting "I", which is mostly understood as a human. In opposition the *object*, which commonly speaking referred to as a thing or a matter.

Left alone, the *object* is just "*a thing*", but can also include non-material phenomenon. The *object* is an *object* for the "I's" reflection, examination, exposition, exploitation, manufacture or emotions. A *subject* can be regarded as an *object* in a given context. But when a human being is seen as *object* for someone's interest, we will still see the human as a *subject*. The infant is seen as a *subject*, but is also an *object* for the love of its parents.

Furthermore the passive *thing* will be able to take *subject status*, for instance when it does not correspond to our expectations. The obvious example of the modern world is the computer program refusing to meet the demands of the user.

In other words the *subject/object relation* (relation = one is given by the other, in opposition to a connection between independent elements) is expressing a function, determined by the situation. That there is an *object* means there also has to be a *subject*. The *subject* relates to the *object* and the *object* is *object* for the *subject's* interests. The *subject* is establishing (outer, denoted) relations and (inner, connoted) connections to the *object*.

On the theatre stage these relations and connections between the *subject* and the *object* and there unceasing changes are to be represented - *shown* to the audience - according to the chosen means of expression and the chosen formation of the signs. There is both a physical and a perceptual difference at play, which in combination defines the aesthetics of the performance. The physical difference is the difference between the human and the thing and can in principle not be transcended. It is either a thing or a human. The perceptual difference between the *object* and the *subject* is created in the mind of the spectator, who willingly accepts the codes and signs send from the stage, to be seduced from reality into a fiction.

The effect of articulating and transcending this boundary directly or indirectly is not only used in the puppet theatre, but is a central aspect in modern stage art. In the figure below we have tried to outline how the different genres in theatre, i.e. *performance art*, *modern dance*, *live art* and *puppet theatre* relate to this boundary.

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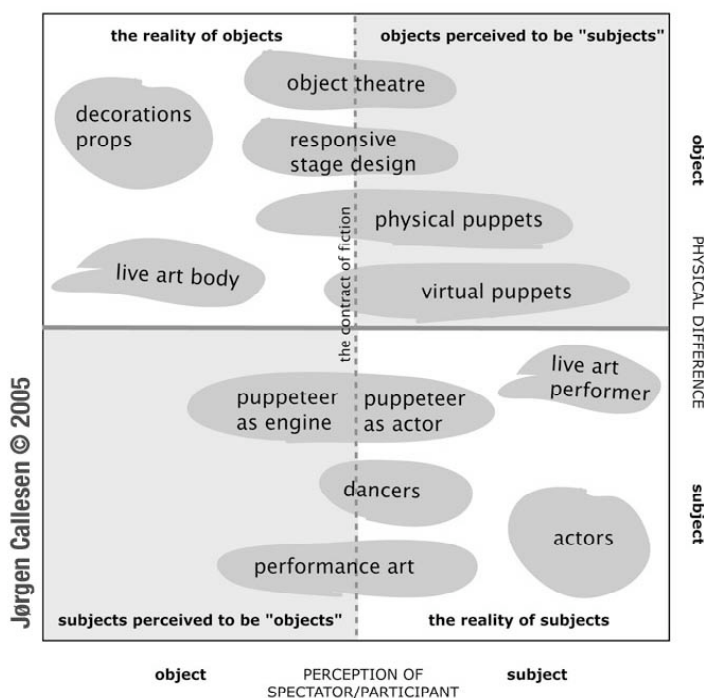


Figure 1. Different genres of modern stage art in relation to the physical and the perceptual notion of the subject/object relation.

As a spectator you are challenged constantly by seeing the humans and the things change their *subject/object* status, and yet staying what they are. Referring to the puppet theatre, you might realize, that this effect is not a strange coincidence or a transcending miracle, but the very sense of the performance.

From this perspective it is clear that responsive stage design creates physical relations between things, performers and members of the audience that inevitably will articulate the perceptual boundary between *subject* and *object*. The question is how it is used and what it can express.

The role of the scenography

In the middle of the twentieth century, the puppeteer broke through the screen, which until then had hidden her, and emerged on the stage as an equal partner for the puppet. Because this breakthrough occurred in Poland, the homeland of (contemporary) artists like *Kantor* and *Grotowski*, it was easy to recognize its common roots in the avantgarde theatre of *Jarry*, *Artaud*, *Marinetti*, *Craig*, *the Bauhaus-movement* and *Brecht*. (Goldberg 1988) So it became possible to see the art of puppetry as an independent art form with its own characteristics, and not only as a diminutive classic Aristotelian drama using wooden actors, instead of actors of flesh and blood.

Adherents of the classical puppet theatre often reject the notion of puppet theatre used in connection with the use of i.e. things, light, pictures of light on a screen, spaces and props. Similarly, many theatre theorists, fixed on the Aristotelian model, refuse to recognize performance art as *theatre*. (Jurkowski 1989: 7) Performance art is often lacking the dramatic text as an expression of the dramatic movement, in the same way as the modern puppet theatre often is lacking the puppet as an icon for man. Instead both theatre forms are giving the picture, two or three-dimensional, a prerogative for the drama text and the traditional puppet.

What makes the puppet theatre a special art form is the conscious use of the relation between the puppet and the player to create meaning (Kawrakowa-Lorenz 1986, 1989). This corresponds to the observation of *Katrine Nilsen*: that within responsive stage design, the focus is set upon *the relations between the scenography and the participant*. (Section 2.1)

By adapting techniques from the puppet theatre and the training of modern puppet-players (as e. g. in Berlin at Hochschule "Ernst Busch") we will focus on the establishment of the relations and connections between human and thing. Working in three steps and emphasizing the difference between the character of a *thing*, not yet an *object* for someone, and an *object*: Focusing on; 1. The thing as a *thing*; 2. The thing and the player (relations and connections); 3. The thing with the player in the space (the *tale* of the *subject/ object relation*).

Where a thing on stage is given the opportunity of becoming a *subject*, every other thing on the stage may be ascribed the same possibility, and the premises will be those of the theatre of things.

Taking lighting as an example it means, that the light on the stage is not there only to make the actions of the stage visible to the audience. The light is in every situation going to tell its own story. The different qualities of the light, such as colour, intensity and so on form a repertoire, from which the producer can select adequate means according to her intentions. These intentions will emerge from the work in three steps, as sketched above. Seeing the means of expression as "*puppets*" is giving them an entity, and, in some cases, an identity. Probably every light-technician unconsciously think so - but the term *puppet* might legitimise her thinking and challenge the director, the performer and not least the reviewer to think so too. Every other means of expression could be treated the same way.

1.2 Digital Media on stage

(Jorgen Callesen)

In the recent years a new media culture has emerged, which has developed popular interactive forms involving audiences and media representations in new ways. Phenomena such as autonomous computer generated characters, responsive space and tele-presence has in many cases challenged the boundary between the theatre, performance art and popular cultural events. It has also challenged the boundary between the traditional skills within the stage arts and has forced producers of such experimental performances to define the relations between art and technology as well as the relation between media design, programming and traditional production skills. The use of the new technology can be evaluated according to how well it integrates with the action on stage as pointed out by Robert Le Page:

"The theatre is implicitly linked to technology. There is a poetry in technology, but we try to use it in a way that it does not eclipse the action on stage" (Rush 1999: 71)

When digital media are introduced in the stage arts they automatically create expectations that they can be manipulated and transmitted in different ways either by the computer, by the performers or by the audience members themselves. In this way the digital media culture has supported the development of the notion of *text* introduced in this paper, where all elements can contribute to the total scenic expression including the physical actions of the audience.

According to media theorist Lev Manovich the computer is manifesting a new popular culture based on the notion of *the database*. Manovich defines digital media as *New Media Objects* (NMO), which are managed by the principles of *the database*:

"*New media objects* may or may not employ these highly structured database models; however, from the point of view of the user's experience, a large proportion of them are databases in a more basic sense. They appear as collections of items on which the user can perform various operations - view, navigate, search. The user's experience of such computerized collections is, therefore, quite distinct from reading a narrative or watching a film or navigating an architectural site. Similarly, a literary or cinematic narrative, an architectural plan, and a database each present a different model of what a world is like. It is this sense of database as a cultural form of its own that I want to address here" (Manovich 2001: 219)

The advantage of the NMO is that it allows the investigation of the medium as an *object*, with a specific materiality (light on a screen and audio samples) that can be manipulated according to certain parameters. The special thing about the NMO is that it can also include the data and the structures defining its manipulation and reproduction. The NMO is not just an image, a digital video or a sound sample, it is also a database structure, *a matrix*, with the ability to organise, create and perhaps mutate itself.

From this observation it seems that responsive stage design, with improvisations and user participation is closely related to the principles of the database, which presents a collection of items and a structuring principle, but no choice about which item must be presented. This is in direct opposition to the linear narrative, known as basis for the Hollywood film, many TV genres and theatre plays, which can be described as a series of choices already made. In this way the terminology from digital culture and the database as a cultural form is suited to describe the new positions in the stage arts addressed in this paper.

The fascination with the computer medium and its aesthetics derives from these features, which were the point of departure for a series of workshops in the *Performance Animation Toolbox* project, as mentioned in the introduction. (Callesen, Kajo and Nilsen 2003) During these workshops experimented with various types of sensor controlled responsive sceneries and objects that would react to the actions of the performers. These experiments involved many types of artists from actors, performance artists, to light technicians, directors, dancers, puppeteers, designers and programmers. The results were actual prototypes pointing to a new way of integrating media in the stage arts.

An important observation was that the complexity of the NMO often confuses the ability to tell who is controlling who and what parameter is controlling what expression. When this is not completely understood or mastered by the performer, the *subject/object relation* cannot be articulated clearly to the audience. It also makes it difficult to integrate the different elements on stage in a unified expression. With the help from the analysis of *Jette Lund* and inspiration from the modern puppet theatre it seemed however that there is some kind of hierarchy of implementation, starting with the relation between the performing artist and the *object*. When this is clearly defined and established more and more parameters can be added and the complexity can be increased.

The main conclusion of the project was that the relation between physical and virtual representations presupposes a profound knowledge of the performer to handle and articulate the *subject/object relation* with physical stage elements. This was the main inspiration for *Katrine Nilsen* to initiate the *RespOnce* project as the point of departure for more focussed research into digital responsive stage design and how it relates to the physical world.

2. The RespOnce project

(Katrine Nilsen)

2.1 New Stage Art – new demands, new tasks, new roles

The creation of a stage design in constant change, whether it is physical or virtual, makes several new demands of scenography concerning form, expression, construction and function. If the audience is allowed to move freely on the stage there is no longer "*just one perspective*", as in the classical Proscenium theatre, but a need for a "*multi angle stage design*", which can be experienced on several levels from total to ultra close-up. The demands on scale, finish and level of detail will therefore increase as in an exhibition or an art installation.

That the scenography is *responsive*, reacts and can be influenced *live* by a performer or a participant/spectator, sets a main focus on the relations between the stage, the performer and audience. The importance no longer lies on the person or the scenography in separate, but on the common *interaction* between them. The role of the scenography is changed from primary being regarded as an image, a picture or an illustration, to be seen as a *playing material* and treated as a potential co-actor. To be able to participate and interact, the performer and the participant/spectator will have to understand the principles of the presented performance. The scenographer will have to visualize and establish an understanding of *the matrix* behind it. So apart from the creation of a visually interesting scenario, the task for the scenographer will be to design a *readable* space, with possibilities for action and the potential of becoming a character, making it possible for the performer or participant/spectator to grasp the structure of *the matrix*.

An understanding of this new field requires knowledge in performance technique and dramaturgic and dramaturgic principles, which means that the scenographer must acquire new competence that normally belongs to i. e. the director, the choreographer or the dramaturge. If the scenography must emerge from a close improvisational collaboration between designer, director and performer, it would be necessary to achieve a more flexible and modular scenic expression. This would facilitate the scenography to be progressively deconstructed, reconstructed and changed throughout both the process of the production and in the meeting with the audience, hence the title *Design for Breakdown*.

The question for the scenographer working in this new environment is: What are my tasks and my responsibilities in this new field? How to design a stage in perpetual movement and change and how to ensure the artistic quality of the visual flow, when everything apparently is unpredictable? The scenographer will have to find ways to contribute to the creation of this *living image* all from the beginning to the end.

As a scenographer I will need a basic system and a fulfilling method to be able to deconstruct, improvise and deal with the terms of interaction concerning the physical elements on stage, on the same level as the choreographer, the director and the performer. However the nature of the problem cannot be revealed or solved by making an actual *design*. A design is a *fixation* of an idea, a theme, a form or a function and what is needed in this context is a flexible and open concept.

2.2 RespOnce – Design for Breakdown

In the beginning of 2004 I therefore initiated the project *RespOnce - Design for BreakDown* to develop and test a possible system and to suggest a method for responsive stage design. I wanted to *break down* the essential scenic elements into their more basic components, enabling me to combine them in new ways and to rebuild and construct them into new forms and structures. In this way each single stage element can be integrated and tested for its abilities relating to a certain performative situation. Whenever necessary it could be taken out and replaced with another element or material with a related or slightly altered ability, whereby it might contribute with a complete new aspect.

To achieve this, it would be necessary to work with categories on a more general conceptual level.

With a point of departure in *Oskar Schlemmer's* models developed at *Bauhaus* I was able to encircle the first principles of a system. (Scheper 1988: 253-255) Schlemmer's models describes the "pure form" separated from the "content" and defines a methodology for the formal principles of colour, rhythm, shape, texture etc. Furthermore he also describes the picture as a form in constant motion over time - the change of a form from one state to another, with all the little extra intermediate states in between. This is what the challenge of designing a transient and interactive stage is all about in my opinion: *form, dynamics and transformation*.

To the list of Schlemmer's basic categories *Corpus, Plane, Lines and Spots* I added an extra category *Formless*, for the system also to include liquid or gaseous substances. A large collection of various things and materials was then arranged into these first categories. Quite intuitively I organized the things within each of the categories further into new subgroups, which I eventually gave the headlines *Material, Form, Function and Figure*. The result was a schematic system, a matrix, which can serve as a basic vocabulary for the work of developing scenography through improvisation. (Figure 2)

		Elements ← → Objects			
		Material	Form	Function	Figure
Basic Forms					
2005 © Katrine Nilsen	Corpus Mass				
	Plane Surface				
	Lines Skeleton				
	Spot Grains				
	Formless Fluids				

Surface	Mass
Sticks	Strings
Fluids	Dust
Element X	Void & Space

Figure 2. The *RespOnce* system.

2.3 The System

The system is a classification of *things* in a matrix with basic forms on one axis and the transformation from *material* to *product* on the other axis, altogether defining 20 categories. The system describes the individual material quality, dynamics and characteristics of the things as well as their *hierarchic* organisation and possible abilities of transforming from *material* to *product* and back – as well physically and in the perception of the audience.

The axis with the basic forms is divided in the following categories:

1. “*Corpus*” describes all three-dimensional things with a (solid) Mass or a volume. A *mass* can be modelled, formed or constructed into a form, it can surround or fill something and it can complete a form. A *mass* can also be destroyed, deconstructed, decomposed, rebuild or transformed. (*The Flesh or A Body*)
2. “*Plane*” describes all surfaces or membranes. A *surface* can be folded and unfolded, it can cover, wrap or hide a form or it can serve as a background or underlay for something or someone. Things like carpets, backdrops, walls or floors are all plane surfaces. (*The Skin*)
3. “*Lines*” is all kinds of sticks and strings and everything with a clear and visible construction or constructive form. *Sticks* can point, pile, bundle and bend and it can indicate and construct a form. *Strings* can connect and be stretched between points, it can join, assemble and encircle, and it can create lines and outlines of a form. (*The Bones, The Veins, Tendons and Nerves*)
4. “*Spots*” describes all kind of grains and small units en-masse. *Grains* are an inconstant mass, which can be small individual units or parts of a demolished mass or form. It can be spread, sprinkled, strewed or mounded, it can create patterns, imprints and outlines and it can cover a large area or be gathered into heaps. (*The Remains*)
5. “*Formless*” is all kind of fluids, liquid or gaseous. *Fluids* are never constant and needs some kind of container or membrane to be fixed or shaped into a form. It can soften, dissolve and destruct or mix, blend and gather a material and it can surround and absorb something or someone. (*The Body Fluids*)

On the other axis the matrix define the *things* on a scale from *material/element* to *product*, which can be read as follows:

1. By “*material*” is meant a substance not yet manufactured into at specific form or function.
2. By “*form*” is meant a material shaped into a well-defined unity not referring to any known function.
3. By “*function*” is meant a manufactured shape or unit referring to a certain purpose.
4. By “*figure*” is meant a shape or material designed to depict, represent or imitate any living being: Human, animal or plant - or something natural given (forest, hill).

Everything on the stage regardless of its characteristics is there to arouse associations by the performer and the spectator/participant. Nevertheless I find that there is a qualitatively difference in the character of the associations aroused, according to the expression or function of especially two types of things, which I will refer to as:

"Ready-Made" – things defined in relation to material, form and function, but not yet carrying tracks of use.

"Objet trouvé" – things that are *found*, old, used and marked by their previous use and destiny.

Between the *virginity* of the one and the *exhaustion* of the other there is a wide range of possible *"history"* for the performer to define - from the open-for-all-possibilities of the brand new, to the rather closed expression of the old and used.

This classification helps to judge in what way the specific thing is able to become an *object* of our attention and whether it signals that it has already been an *object* for someone else. In this way the system is a key to understand and work consciously with the establishment of the *subject/object relation*, with a point of departure in the materiality of the things.

2.4. The use of the system

On the basis of this system a *Toolbox* can be developed, containing a number of basic materials, products and three-dimensional modules, chosen or designed within the categories of the system. These *elements* of the toolbox will serve as *Dummies* or training implements for the *devising* of a basic idea for a choreography, a scenography or an action. These basic elements must be as neutral as possible, to keep the performers from being distracted by personal associations, memories or stories that often emerges naturally from *ready-mades* and *objet trouvé*. With the neutral point of departure the performers can focus on the materiality and the physical abilities of the thing as well as the choreographic/dynamic possibilities it possesses. The more neutral and formal the material is the better it is suited to be transformed and combined into new forms and meanings on the stage. This initial work with the *toolbox elements* will later in the process be the basis for the development of the actual scenic elements, by progressively trying it out with different materials, surfaces, colours etc. until the right visual expression is achieved.

This systematic construction now had to prove its worth in praxis, and the use of it had to be adapted to an actual given situation. My next step was therefore to find a possibility to test the system and to generate the method.

2.5 The Night – simultaneous improvised theatre

The stage director and artistic leader of the international known Danish performance theatre *Cantabile 2, Nullo Facchini* was experimenting on a new production, which in many ways might create a base for my work.

The project *The Night* is focusing on the development of a new technique and a method for improvised acting, aiming to use simultaneous improvisation as an actual type of performance. For this purpose a *Toolbox* is being built up, containing a selection of acting techniques and tools, together with sufficient scenographic and dramaturgical material. *The Toolbox* shall ensure the actors a constant *flow* in the improvisations and make them able to guide the focus of the audience to the central action of the actual scene.

During the playing period the actors must every day bring an object, a text, a song, a series of actions or a choreographical sequence, which secretly to the other actors are found and rehearsed on forehand. When these elements are taken into the improvisation, the other actors will have to respond to this and find a way to contrast or underline the solo. The actors are forced to react to other actions, and constantly have to redefine their own character according to the progress of the performance. The idea is to progressively change and rebuild parts of or the whole performance, based on stories, episodes and things collected during a playing period or a tour.

2.6 The test

The first test version of the system and *The RespOnce Toolbox* was introduced at Cantabile 2 in relation to the primary rehearsals on *The Night*, and in a workshop at their School of Stage Arts (SOSA). The performers and students all had some primary experiences in what the school notions as "*work with objects*", which means improvisations where things are used to express different emotions and states of mind.

We started up with a Toolbox consisting of a complete collection of various things, materials and different artefacts, which may be characterized as *ready/mades* and *objet trouvé*. For the categories of pure materials: *mass, surface, sticks/strings, grains/units* and *fluids*, I provided a collection of basic rehearsing material representing each category.

The collection of things was primary used as a *showcase* to illustrate the matrix of the system in its full extent and to create a common platform for our work. For practical and economical reasons all the things were of a rather small scale. It was the original intention that the *Toolbox* should also contain a selection of spatial *basic modules* of each form category, but within the frame of the project it had not been possible to develop.

To concentrate the study on the direct and immediate interaction between the performer and the thing, the point of departure was taken in the *black box*. *Site-specific* elements and other parameters such as light, sound, costume etc. were deliberately excluded at this level of the process.

The things

The first task the performers were given was to place the things from the showcase in the matrix to create an understanding of the different categories and to establish a common vocabulary about the principles behind it.

In practice many of the chosen things might be placed in more than one category depending on the significance the performer would attach to it. This was often influenced by considerations about what use the performer would make of it on the stage and illustrates that the categorisation is influenced by the way *the subject/object relations* are established on a psychological level.

This was followed up by the next task, where the performers were asked to select a single thing from one of the categories, first to investigate its abilities *on its own* and secondly in relation to themselves as performers. As a result they were asked to show a short choreographic sequence with themselves in relation to the thing.

During this assignment I experienced that the performers were fascinated and inspired by the things. For some it felt natural to work choreographically with the things. Others would spontaneously choose an *object trouvé* and start to dramatize a sequence. The choice of the character was generally logically motivated by the shape or the visual appearance of the thing. In this process of anthropomorphising the changes in the *subject/object relations* appeared. Several of the performers were also experiencing the process of reducing themselves to an *object*, serving as *engine* for the thing or experiencing the thing itself as so powerful and expressive that the thing would only *allow* them to develop certain stories.

In the last of these introductory rehearsals I tried to replace the things the performers had been working with, with a *basic material* from the same category or with a somewhat similar appearance or capability. The task was to apply the same sequence to this new material. In most cases it was possible to tell approximately the same story, but at the same time the material had given a new freedom to develop the performative or choreographic sequence.

The work with the smaller objects from the *showcase* tended to become private and intimate. Basically the performers would kneel down and place the thing in front of them on the floor to investigate it with their fingers and eyes. For the next rehearsals I chose to provide a collection larger things from the theatres' stock of props. With these new things I hoped it would be possible for the performers to use the whole body to investigate the thing, and the space between and around them. Many of these larger objects were however also of *object trouvé* character, whereby several performers again were facing problems with personal interpretations or limitations set by the expression of the object.

The space and the choreographed picture

The purpose of the last rehearsals was to direct the work with the things towards an actual performance piece and also to focus on the relation between the performer, the thing and space. My task was to make the performers aware about the visual stage image and inspire them to compose images. This again was done in three steps, first with the thing itself, then with themselves and the thing and finally with themselves, the thing and the space.

In the beginning the performers were mainly focussed on the investigation and the handling of the thing and forgot to be aware of the image they were to create. It is important to note that considerable time must be used to get familiar with the thing letting it become a natural extension of the performers own body and personal universe on stage. Otherwise the image will loose its focus, meaning and motivation. Another argument for a thoroughly investigation of the materiality of the object, its abilities and *intentions* is that this might motivate the creation of transitions from one movement or image to the next. In many ways it is a matter of *cause and effect*, which for instance can be described as in the stages of a fall. This determines how a thing is moved from one position to the next or from one state to another, as *Oskar Schlemmer* investigated it in *Das Triadische Ballett*. (Müller 1995)

There was basically a tendency to fill in too much material concerning imagery and sequence and to forget to focus on the total composition. Not all performers are by nature good at composing images. For many reasons it is difficult, when absorbed in the actions on stage, at the same time also to imagine the perspective of the audience concerning the composition of the total image. It is therefore important that the performer is allowed to step out of the image and use a "*stan-in performer*" to experience the total perspective.

In relation to the creation of space and relations in space it became clear to me that the things and materials I had provided for the *showcase* in this test were insufficient. Size, scale and volume have a fundamental impact on the relation between object, performer and space. The planned set of spatial *basic modules* would therefore be indispensable.

The role of the designer

In many ways the performers were working somewhere between design and choreography. It is however, important to note that the performer is not, in the same manner as the designer, changing and crafting the material to a complete new artefact on stage. Rather, it is the role of the performer to *transform* the thing and to establish a *dialogue* with it.

The performer must relate to the thing as a *playing material* and learn its possibilities and limitations, to master it and make it part of an act. This transformation can be achieved through physical manipulation of the thing, but it can also be obtained through the way the performer is relating to it in different situations.

Apart from the development of a conceptual system and the preparation of the scenic elements it also became my role to help the performers by suggesting or directing how to act with the things. My task as a scenographer in this type of performance is generally to support the development of new images during the process or to select from the image sequences already provided, rather than to design them in advance.

Because the images are in constant change I cannot just be concerned with composition, but also have to consider movements, the dynamics of the material and its ability to develop new images and constellations. So it will become my task to orchestrate all the visual elements and effects in a constant organic flow of images in tempo, movement and positions.



Figure 3 Work with physical and virtual objects. The RespOnce project (left) and the PAToolbox project (right).

3. A Conclusion

On the stage of the Aristotelian drama theatre the thing is mute and helpless, reduced to a decoration or a prop. In the puppet theatre and on the stage for (post)modern performance theatre space, things and humans relate to one another, using all possible media for representation.

The importance of *Design for Breakdown* in this context is that the focus is directed towards the interaction between the thing and the human, between the human and its surroundings, whereby it is possible to define a vocabulary that allows you to interpret, create and develop a language for an actual performance.

To deal with the great complexity of the modern theatre and the digital media the experiences mentioned in this paper are fundamental.

This way of deconstructing, systemizing and working with the many different elements on the modern theatre stage could be an integrated part of the curricula in schools for performing artists in line with improvisations with voice and body. Then the performer

would already have developed own experiences and a practice that, in this described test situation, had to be developed more or less from scratch.

Working with the physical *thing* is the basis, and with the direct, physical experience it is possible to take in the virtual means of expression such as the NMO, or the light, the costume, the linguistic texts and so on, to reveal their true and full potential.

To understand the languages of the modern stage and make it understood to the audience not only the technique must be mastered, the systematic of the used *matrix* is a part of the play, a part of the content of the performance, to be created and recreated again and again on the stage and in the mind of the spectator.

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