When matter comes to matter – working pedagogically with junk materials

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Abstract
This article focuses on junk materials and how they invite and encourage children to play and construct without the need to name, define or label the constructions. The article also deals with how practitioners’ expectations can disturb this creative and transitory process. The article is based on one aspect of my study entitled “When matter comes to matter: Recycled materials as a pedagogic idea” (Odegard, 2011). A focus of the study concerns how pre-school children’s meetings with recycled materials can encourage equality and creativity. The junk materials seem to be equal in that they can invite children and practitioners to play and learn on equal terms. The children appear to be given equal opportunities from the material itself, regardless of gender, culture, age, disability, language, ethnic background and history. Having been saved from the garbage bin, recycled materials seem to have lost their function, which in turn seems to appeal to children’s creativity and make them collaborate and construct in numerous ways. My discussion relates to MacRae’s studies (2008; 2011) and to Foucault’s concept of heterotopias (1986) combined with Deleuze, Guattari and Massumi’s lines of flight (1988). These concepts enlighten the issue of practitioners’ expectations to children’s work with junk materials, as this issue emerged from analyses of the focus group conversations of my study. Keywords: junk-materials, materiality, expectations, lines of flight, heterotopia

Introduction
In this article I focus on junk materials, materials that with their diversity and complexity can open up spaces for various forms of play and imagination, thereby providing numerous and more varied play experiences. Junk material is saved from the garbage bin or can be surplus materials from industries or companies that are given new life through children’s ability to construct and be creative with them because they acknowledge the lost of their previous functions, or invent new ones. I will highlight how this material seems to invite and encourage children to play and construct, and also how the materials invite children and practitioners to play and learn on more equal terms. It appears that the material itself does not discriminate in that it gives all children equal opportunities regardless of their gender, culture, age, disability, language, ethnic background or history.

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This article is based on one of the aspects of my study “When matter comes to matter – Recycled materials as a pedagogic idea” (2011), which focused on how children’s play and learning with junk materials can encourage creativity and equality. In this article, I present findings from two different methods of data collection from this study: focus group discussions and pedagogical documentation. Theories of materiality underpin the interpretation of the data. I employed deconstruction and discourse analysis as my analytical tools, and different issues emerged from the analyses of the focus group conversations, with one of them being explored in greater depth in this article.

I use concepts in line with MacRae’s studies (2008, 2011) and relate to her use of Foucault’s concept of heterotopias (1986) combined with Deleuze, Guattari and Masumi’s lines of flights (1988). Together with theories of materiality, these philosophers’ concepts and theories seem to open a new world of thinking and understanding, in this case when it comes to working pedagogically with junk materials. These concepts and theories enlighten how this may have an impact on pedagogical work.

My aim with this project is to explore the concept of materiality and the idea of working pedagogically with junk materials, and to argue that this can open up new ways of understanding children and new ‘spaces’ for play and learning.

**Background context and method**

The focus group of the study was seven kindergarten and school practitioners from seven institutions: three kindergarten teachers and one assistant, two school teachers, and one teacher for children with special needs. These practitioners were selected from a larger pedagogical network that had in common the experience of using junk materials as pedagogical material, combined with critical reflection on such experience. The focus group conversations were mediated by the participants’ photos and texts documenting their pedagogical work with children’s encounters with recycled material. This documentation showed or described children exploring and playing with different kinds of junk materials, either on their own or together with other children.

The method of using focus group members’ own photos and texts for group conversation is based on a democratic approach in which the group members themselves set the agenda for what they feel is worth examining more closely (Taguchi, 2010; Dahlberg, Moss, Pence and Halvorsen, 2002). Thus, the focus group conversations also produced new documentation (Taguchi 2010). In other words, ‘documentation’ shifts from being photography and text to an arena for reflection and new knowledge (Odegard, 2008; Åberg, Manger, & Taguchi, 2006).

Taguchi (2010:64) describes pedagogical documentation as a material-discursive “apparatus”, based on Barad’s (2008) view of material documentation itself as being an active agent in the production of discursive knowledge. Häikiö (2007) argues that learning is given a shape, an interpretation and a voice through the use of pedagogical documentation. Hence, the apparatus we make use of helps to construct meaning around children’s learning, and should also be interpreted in the light of materiality.
When matter comes to matter – working pedagogically with junk materials (Taguchi 2010). In these processes everything has significance – who we are, what we document, how we document it and by what means: camera, pen and paper will all be significant for how we construct the meaning of the documentation: “knowing does not come from standing at a distance and representing something, but rather from a direct material engagement of the world” (Barad 2007: 49).

Through the focus group conversations evolving around the photos and texts brought to the situation by the group members, we tried to bring to the surface the different pedagogical processes that arise in children’s work with recycled materials. The conversations in the five meetings of the focus group, each meeting lasting for two hours, were recorded and later transcribed by the researcher. The transcriptions were analysed by means of discourse analysis as applied by Palmer (2010a), and Jørgensen and Philips (1999), and by deconstruction of the conversations as applied by Kjeldsen (2004), Otterstad (2006) and Taguchi (2004).

In accordance with Otterstad’s analysis (2008), the group conversations of my study went on in a kind of spiral process in which the members themselves identified the stories they found the most significant, and therefore meaningful to the conversations. Throughout the five meetings the group participants returned to themes or concepts they found particularly interesting. I found that this process both extended and challenged the recurrent themes each time. Listening to the conversations, and re-listening to the recordings afterwards while I transcribed them, gave me a systematic entry into the search for patterns of different themes and possible dichotomies. The schema I used for identifying patterns gave me an idea of the frequency of themes in the data and thus what the dominant discourses were. One dominant discourse was that of recycled materials encouraging equality and creativity, in which I have selected one aspect to concentrate on in this article. This aspect concerns the staff’s expectations linked to children’s work with junk material and models.

The research ethics of the project concerned the privacy protection of the focus group members. In the process of developing new pedagogical documentation through group conversation, I wanted to maintain a respectful environment valuing the different points of view of each participant. At the same time, I also wanted to challenge the discourses and perspectives that occurred.

Below I discuss the specific concept of junk materials and the more general concept of materiality. Moreover, the issue of staff’s expectations to children’s work with junk material that emerged from the empirical data will be seen in light of the theoretical concepts of lines of flight (Deleuze, Guattari and Massumi 1988) and heterotopia (Foucault 1986).

Junk materials
Inspired by the pedagogical philosophy of Reggio Emilia and the ReMida centres (a centre for recycled and surplus materials), some of the kindergartens in this project gather materials together with children from their family homes and from local shops/
businesses. They display these materials in an aesthetic manner by structuring them according to colour, type or shape. They are then offered as alternative materials for play, exploration and learning. This embodies a strong desire to facilitate sustainable development for the future, to increase the collective awareness of source separation and to combat the consumer society, at the same time as offering alternative, complex and varied materials for pedagogical work. The following narrative is constructed to illustrate the encounter between a two-year-old girl and her encounter with a junk material centre:

Bea, 2 years old, is heading for a room in the basement where there are thousands of different kinds of junk materials. For a moment she hovers on the threshold. Her eyes scan the shelves. Her body appears almost to be trembling with all the impressions. She closes her eyes for a moment as if to protect herself or to preserve or refine the moment. She takes a deep breath before moving towards one of the shelves. Her hand moves towards one shelf and then another, she touches, she absorbs, she moves and is moved by the encounter between herself and the materials. The materials work with her, around her and inside her. One of the shelves, with many different colours and many different objects in all the colours of the rainbow and all kinds of shapes, draws the attention of the two-year-old. Her gaze, body, arms and hands turn to the different containers on this shelf. She touches different things, turns them around, lifts them up for a closer look, smells them, keeps them in her hand for a moment and puts them back.

But some things have particularly attracted her attention, and the child collects things individually according to her interest in their colour, shape, texture and size. An outsider may believe that things have been chosen at random but, after observing the little energetic body and the deep concentration that the child radiates, you will find that this is far from the case.

This narrative is constructed on the basis of many documented encounters between children and the junk material centre. It describes how human interaction with junk materials can involve the entire sensory apparatus, and how the materials affect and influence the individual. Bea’s encounter with the room and all the materials is in itself a material experience, and can represent the experience of many others – adults as well as children. In the centre, materials can be selected for use in constructing and building installations, in making patterns or as props in play activities.

The term “reuse” has associations with clothes and furniture, recycling, design and architecture, the recycling of paper, packaging and the like. When I use the term “junk materials”, like MacRae (2008; 2011) does, I refer to materials that in normal circumstances would have been thrown in the rubbish bin if their potential for reuse had not been spotted through active source sorting.

In themselves, junk materials do not convey a message about what they are to be further used for as they represent an infinite range of ‘junk’, e.g. hair rollers, corks, mosaic tiles, fabric, leather, plastic, paper and glass packaging products, off cuts of paper and cardboard and so on. Mosaic tiles, for example, can serve to make junk material more specific and tangible. Regarding their visual appearance, they often
come in different colours, they are glossy and appear to most people to have beautiful and aesthetic qualities. When it comes to their utilisation potential, they are usually square in shape, easy for everyone to use and can be fitted together in various designs and in several layers. In a purely tactile sense they have a smooth, comfortable surface and a rougher reverse side, and can be pleasing simply to touch or to hold close to one's cheek. They can be viewed as an invitation to touch and structure them, to count and systematise them, to categorise, measure and mix them, and to use them in collaboration and interaction. I regard this as a suitable, well-liked material for play and construction among children in the kindergarten. The tiles allow children to be creative, often in a transitory manner in that they are not creating something with the intention of something permanent. Images are created, changed, destroyed and re-emerge in new contexts. Children work with this material in a concentrated manner for a lengthy period of time with great enthusiasm and enjoyment.

The diversity and complexity of junk materials open in various forms of play and installations, thereby providing numerous and more varied play experiences than more pre-defined materials. Junk materials inspire and open for exploration and play without a specific purpose in the same manner as natural materials or more open and flexible materials such as building bricks or clay.

**Same shit – new wrapping?**

Junk materials are known by many names or, as the heading “same shit...” humorously indicates, re-emerge under new concepts such as undefined materials, worthless or valuable materials, surplus materials and the like. I do not intend to dwell on the clarification of such concepts in this paper, but highlight a concept that the focus group in my study questioned, namely that of undefined materials. For many of my research participants, materials such as tissue paper and rubber tiles are described as ‘undefined’ materials, an articulation that emphasises their properties rather than their uses:

Isn’t it the use and the areas in which it is used ... that are more undefinable, a spinner is a spinner, it’s not necessarily the case that it’s the material itself that is undefinable. It has its own quality, a shape and a ... but it can be used in an undefined context, can’t it?

This reflection examines that what is undefinable is not the materials in themselves, but the situations in which they are used, for example the expectations attached to the materials, the children’s experiences and the material’s cultural context and qualities.

In order to understand this complex context, I have constructed the concept of *lost function* which refers to the materials’ loss of their original function through reuse. In many cases, children will recognise the previous function of the materials, but at the same time they perceive the potential of the materials for use in new creative contexts. This moves us on to the more general concept of materiality.
Materiality

In the context of this article, the concept of materiality is pluralistically derived from Hekman (2010), Barad (2007, 2008), Hultman (2010), Taguchi (2010), MacRae (2008; 2011), Palmer (2009; 2010b; 2011) and Sandvik (2011a; 2011b; 2012). These studies constitute the research field I am engaged with. Barad claims that language has gained excessive power in research, writing that “the only thing that doesn’t seem to matter is matter” (Barad, 2008: 103). She points out that materiality and meaning do not constitute separate elements, but are instead entwined and mutually dependent on each other. She relates this to Bohr’s theories arguing that it is impossible to separate the object observed from the subject (Barad, 2008; Palmer 2011).

Hultman (2010) describes how “everything is related to everything”, declaring “things, just as humans, make things happen. Things, just as humans, offer certain possibilities and foreclose others” (p.7). The consequence of this process of thought is that no situation can be observed without also seeing it in relation to the materials – which play a role in “everything”. It is not insignificant which space, materials and environments children are offered, nor are the discourses that inform this practice unimportant. Taguchi (2010) and Barad (2007; 2008) introduce us to the material-discursive concept, which expresses how discursive practices already are material. In other words, there is more to uncover when it comes to the child’s encounter with junk materials. My focus group material included the staff’s expectations, attitudes, discourses and notions, as well as space, furnishings, bodies and objects.

As pointed out, one of the perspectives highlighted by the focus group members was the production of expectations related to what children make – of what the product should be named or defined. To combat such expectations, the concepts of lines of flight (Deleuze et.al.; 1988) and heterotopia (Foucault 1986) in combination can illuminate the “different space” created as the child works with materials that are incompatible, with lost functions, and as such cannot be named. The perspectives of lines of flight and heterotopia can elucidate different aspects of the pedagogical processes associated with junk materials and materiality. The further discussion on these aspects also forms a dialogue with MacRae’s study (2008).

Lines of flight and heterotopia

Within the area of creativity and equality one of the perspectives of this study is that junk materials appeal to children and encourage them to interact and construct in very different and varied ways without feeling the need to interpret, name or define. Through MacRae’s doctoral thesis (2008), I discovered a new approach to thinking about children’s encounters with junk materials. MacRae links the lines of flight of Deleuze et.al. (1988) with Foucault’s concept of heterotopia, which I find to be of particular significance and relevance to this research. She identified the clear expectation of being able to comprehend what the junk models of her study represented, in addition to a desire to interpret or give a name to the children’s constructions.
However, she experienced that both the children and the junk materials resisted this. In her examination of this resistance, she found a meaningful association with the concepts of *heterotopia* and *lines of flight*.

According to Foucault (1986), the concept of heterotopia was introduced to describe places and spaces that were not compatible with each other: “the heterotopia has the power of juxtaposing in a single real place different spaces and locations that are incompatible with each other” (Foucault 1984: 5). MacRae (2008) explores the potential of heterotopia, and notes how educationalists can employ this theory to respond to the child’s constructions, in this case junk models, and attempt to resist their urge to understand, explain or summarise everything:

...the junk model fulfils Foucault’s concept of a heterotopia, in that it occupies a space that is different... As well as occupying a different place ‘in which things are arranged differently’ from their usual orders, heterotopias are also sites that bring together many different things that would not always be associated with each other (MacRae 2011: 105).

In my conversations with the focus group members of my study, we saw that children use things that are usually not associated with each other when they construct – things that were arranged differently from their usual order. Through the children’s choice of colour, size, shape and texture, each material enforced dissimilar rhythms or motifs in different ways, resulting in constant changes of construction, as also shown by MacRae (2011). The concept of heterotopia can be argued to be at work in these processes.

Deleuze et al. (1988) describe how systems and structures cannot be fully defined, but on the contrary, have *leakages*. These leakages are described as *lines of flight* and are attributed importance because they represent the creation of something new. Such lines of flight can therefore stimulate creativity and provide positive force and energy, and open to new ideas and innovation. This may lead to unexpected actions and things happening that were not intended. At the same time, you can never know where it ends, it can lead anywhere or nowhere at all (Olsson, 2009).

Taguchi (2010) states that *lines of flight* arise in a pedagogical space freed from conventional thinking. “A genuine thought only begins with an external violence to thought, a jolt that forces thought out of its ordinary habits” (Bogue, 2003: 178). Children’s encounters with junk materials can appear to breach conventional thinking; the materials’ incompatibility exercises a power that can force us to act differently and dare to venture into the unknown. According to Taguchi (2010: 115), we might try to verbalise seemingly impossible ways of thinking or understanding something, or try out new ways of doing and organising something in our practices.

The connection between the concepts of *heterotopia* and *lines of flight* has turned out to be an exciting perspective from which to study the children’s junk installations. This link as established by MacRae (2008) is particularly interesting because it enables us to question the human need to interpret, explain and summarise in the setting of a creative or different space. In addition, it also can help to counteract the urge to
name what children construct, or to understand children’s work as products. This may give more room for children’s creativity, and even a sense of equality between children and the practitioners.

**Staff expectations**

The focus group narratives also showed that transition situations in general, such as before and after meals, or before and after going out, trigger situations where children play with children that they usually would not play with, and in more intense and creative ways than in more structured situations. The question is whether the room for children’s creativity and innovation is wider when the staff is more relaxed or busy with specific tasks. It can be argued that transitional situations create *lines of flight* as described by Deleuze et al. (1988).

In Hekman’s analysis (2010) based on Foucault, knowledge and power are closely related where power is practiced. Power is always already material (ibid.:57), in power there is also always the possibility of producing counter-power. One of the focus members of my study describes that the staff sometimes used transition situations to let good things happen among the children. The narrative describes a need for space where specific expectations are absent and where the staff have more laid-back attitudes, to offer the possibility of creative situations.

Häikiö (2007) emphasises the interaction that occurs between children and adults, and describes the adult’s role in the process of constructing with children as co-constructers, by challenging, questioning and supporting the ongoing construction. The important dialogue involved here should be characterised by sensitivity and respect. Although she also acknowledges the “present adult”, the most interesting situations seem to arise when the adults are pulled back a little. When children seem insecure in their contacts with the materials in an atelier situation, they are also often unsure of what is expected of them (ibid.). Such productions of expectations but also the uncertainties that may accompany the encounters with junk materials were also frequently talked about in the focus group of my project.

Curtis and Carter (2003) compare the teachers’ work with that of an improvisational artist: sometimes needed right in the action, and sometimes withdrawn from action. They describe the need for the teacher’s constant attention, awaiting invitations, offering new opportunities, and with all her presence keeping the children’s ideas alive through attention and curiosity. This relates to the idea that joy (flow) emerges from the balance between challenges and mastering. Häikiö (2007) applies the concept of *flow zone* to describe the children’s need to feel joy in what they do. She sees this joy reflected in the working methods of Reggio Emilia pedagogy where the children’s interests, ideas and developments are at the centre of meaning making. One member of the focus group remarked:
...this emphasis on there being an expectation that something should be made ... If you want the child to describe a process. What kind of questions should you then ask? ... for example, do we safeguard the child’s ability to be present and to function in the world in better ways if we ask other kinds of questions? Or are we able to ask them to describe the process and not what is latent in our expectations?

This is one of many reflections that demonstrate what the staff expect from the children. Several of the focus group members believe that expectations of an upcoming product are often created. They are concerned with how the development of good questions as well as the absence of questions can help to avoid this. The recurrent theme of the production of expectations vis-à-vis the children and what they are constructing with the junk materials is exemplified in this statement:

What would happen if the materials were available in the section all the time? Would thought then be given to what to make, that there ought to be a product? I think that there are certain expectations here. And there are. From the adults.

Both MacRae’s material and my material contain elements that can be seen as parallel findings. MacRae’s (2008) research has revealed that in all types of construction with materials there is a kind of expectation that there will be some product, and she also identified this expectation in herself. Nevertheless, she observed that if children are allowed to work with junk materials over time, and are not confronted by such expectations, they do not necessarily create anything specific. The analysed data of my study revealed the same adult expectations, but also the fact that children seem to make, build or construct without necessarily having to explain or give a name to what they do.

My analysis also revealed that when children construct or play with junk materials, they arrange various materials in relation to each other. Through its colour, size, shape and texture, each material will enforce dissimilar rhythms or motifs in different ways, which result in constant changes to the construction. Thus, the concept of heterotopia can be recognised here. MacRae describes the intense and empathetic relationship between things and the children’s “thinking” simultaneously with their hands, sensibilities and brain. According to MacRae, this kind of “thinking” offers opportunities for lines of flight and leakages towards new relationships or new connections in the creation of something new (MacRae 2011: 106).

What is constructed simply comes into being and disappears again in its transitoriness. This implies combating the expectations that the work will end in a product. The need to do so is read out of the statement of one focus group member:

I think this is very obvious in the world of the kindergarten, how children act in relation to the expectations we have. Very often they respond on the basis of the expectations they think adults have.
Taguchi (2010) states we have a responsibility to convince children that they are allowed to think as they like, rather than in true and accepted ‘correct’ ways. This statement can also be transferred to a child’s actions. This may allow both children and staff the opportunity to explore and construct together, more as equals in a creative space. MacRae (2008) warns against over-interpreting the meaning or intentions in the work:

By setting ‘purpose’ alongside ‘play’, early years discourse attempts to re-conceptualise the child (disempowered by a modernist developmental approach) as an active, intentional meaning-maker. There is a danger of over-stating intention, purpose and meaning. This lies in the way these words are saturated in a rationalising and essentialist construction of knowledge where it becomes the task of the teacher to grasp the purpose of the child. The overlaying of ‘purpose’ results in the imposition of a coherent and unifying thread that gives the work meaning (ibid: 183/184).

My material revealed constructions of ‘incompatible’ material that resists interpretation, models that did not appear to represent anything, in line with the concept of heterotopia. In this thinking, junk models are not given names that represent something or someone but are often labelled with the names of the children who made them (MacRae 2008). The resistance in the materials or in the models is primarily imbued in the materials’ properties and structures. When junk materials are joined together, each piece is incompatible, but in combination they can become ‘something’ that has meaning or value for the child. The deep-rooted idea that everything that is made must represent something is also challenged by the focus group in my study. I argue that this underlines the poststructuralist critics of the idea of representation. If we look beyond the tendency to think that what is made must represent something, we could instead search for something other than what is recognised as similar and named accordingly.

Both material and discursive

According to Sandvik’s (2011b) Deleuze-inspired study, the staff’s struggle to understand can close processes rather than open them. Without ethical reflection on this, the staff may be in danger of reproducing what they have already seen or thought in an unending circle of recognition and repetition. The philosophy of Deleuze centres on taking in complexity instead of attempting to simplify, on observing how the agency of materiality affects and is affected in construction processes, as well as seeing the value of being different (Sandvik 2011b). The encounter between junk materials and children is both material and discursive as the junk materials “assume” agency, i.e. they act in conjunction with the child’s construction. How the child works and constructs using the materials will depend on whether the practitioner has achieved awareness through reflection, and how they have confronted their own attitudes to and expectations of the children and to what they are constructing. Children’s right
to influence is worthless if it depends on the ebb and flow of the adults’ expectations and supervision (ibid.). Junk material can also be seen as resistance coming from the materials themselves in the form of the absence of categorising, defining and naming. This has to do with what I stated above as the lost function by which the children may recognise the previous function of the material but at the same time see its new potential and use the material in freed and creative ways.

The different shapes and sizes of junk materials invite a variety of uses. One of the focus group’s members points out that junk materials with the same shape and a similar height inspire children to use them to construct and build tall structures. This point was exemplified by attempts of the children to balance a construction by placing ice cream carton lids between cardboard tubes. Häikiö (2007) describes junk materials as materials that offer resistance and challenge and, when children work with such material, creating and constructing are closely allied. Construction is both a language and tool for children that gives them the opportunity to explore different global aspects, thereby creating their own identity and building an understanding of the various phenomena in society. Through constructing, children can create and work on aesthetics, geometry, mathematics and language, against the normative social need of the adult social world to categorise forms of play (Mylesand 2008). If we excessively analyse constructing, playing with and exploring junk materials as being about developing special skills or abilities, we lose the value of living in the present moment or being in a transitory state in which play, learning and imagination are interwoven in a creative context.

Impacts on pedagogical work

The expectations expressed through the staff’s body language, actions or questions asked can create situations in which children feel that what they are working on ought to have a name or become something or someone. Pedagogues should concentrate to a greater extent on creating space for new structures, on thinking differently and on constructing objects that intrinsically need no description as this in itself will create meaning. Sandvik (2010) wants us to consider children’s “unauthorised actions” to a stronger degree: “a more expectant and discreet pedagogical practice would pull children’s perspectives to the fore, in ways that allow different and unknown pathways to be explored” (ibid.:8).

Working on junk materials and reusing things provides meaning in itself. The fact that children acquire a greater awareness of the ability to reuse things is valuable. Further, it is meaningful to create space for creative innovation. This raises the question of whether working on junk materials also can give rise to a resistance to categorisation and definition. Junk materials are not easily categorised. With sensitivity towards the agency of the materials, children can work in a concentrated manner over time, and the situation itself opens to innovation and construction, technical skills and creativity.
Conclusions

Children’s encounters with recycled materials are both material and discursive. Reusable materials can be argued to take agency, and how children work and construct with the material will depend on how the staff confronts their own attitudes and expectations to the actual situation. I argue that the counter-power to adult expectations comes from the material itself and the ways children work with it.

I also argue that junk materials and their effect on children’s choice of expression provide us with new knowledge about children’s play and learning. Irrespective of this, I would assert that the incompatibility of junk materials in the form of different sizes, colours, shapes and textures, and thus their diversity and complexity, create more disparate situations, challenges, meeting places and play experiences than other defined toys or pedagogical material can do. In encounters with junk material, meeting places are created in which new ideas can be developed and where one can experience the absence of expectations and be absorbed in working with the material. Junk materials offer a golden opportunity to explore the tension between creating meaning and being part of the transitory.

Through combining heterotopia and lines of flight, and in dialogue with MacRae’s study, I have tried to show how junk materials and in particular special junk models can challenge both children and teaching staff, thereby leading to the discovery of new ‘hidden’ rooms in pedagogy. In these rooms the materials break boundaries, open up realms of thought and create new connections. Moreover, the materials used have been rescued from rubbish and have been given new life in the encounters created between them and people – which in itself creates meaning on several levels in relation to environmental considerations, as well as in relation to the significance of materials and materiality.

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When matter comes to matter – working pedagogically with junk materials

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