Staying with, working through and performing obsolescence

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Abstract
This paper, which contributes to discussions on techno-ecologies by drawing on feminist technoscience, is divided into three parts. The first part is written by Lindström and Ståhl and outlines the figure of the rag and bone wo/man. It also recounts stories from their travels, where they collected both obsolete phones and also personal accounts on the part of the owners of these phones, and then moving on to explain the process of unravelling and repeating these materials into a composition of an SMS novel.

In the second part, Snodgrass gives an account of the experience of subscribing to the SMS novel *P.S. Sorry if I Woke You*, which Lindström and Ståhl composed from the materials they collected as rag and bone women. Snodgrass's focus is on the kinds of relational, media ecologies style dimensions that the piece can be seen to bring to the fore.

Finally, all three authors join in a concluding discussion on the notions of staying with, working through and performing obsolescence.

Introduction
Planned obsolescence was introduced as a practice in the design of, for example, media devices in the 1930's. As a consequence, devices would not be mendable but rather enforce continuous consumption, and we now live in the wake of this practice with far reaching proliferations of e-waste. In this paper the figure of rag and bone wo/men is presented as one mode of intervening in the becoming of such a wake of waste and obsolescence. This is done through the project *UNRAVEL / REPEAT* where Lindström and Ståhl traveled around the northern parts of Sweden to collect what they considered to be a kind of contemporary rag and bone: discarded mobile phones. In the later phases of the project these obsolete technologies were brought together and reactivated to tell an SMS novel entitled *P.S. Sorry if I woke you.*

This paper is divided into three parts. The first part is written by Lindström and Ståhl. It is called "An itinerary of two rag and bone women" and outlines the figure of the rag and bone wo/man. It

also recounts stories from their travels, where they collected obsolete phones as well as personal accounts on the part of the owners of these phones, and then moving on to explain the process of unravelling and repeating these materials into a composition of an SMS novel.

In the second part, "Yes, you woke me," Snodgrass gives an explanation of the experience of subscribing to Lindström and Ståhl's SMS novel, *P.S. Sorry if I Woke You*, with a focus on the kinds of relational, media ecologies style elements that the piece can be seen to bring to the fore.

Finally, all three authors join in a concluding discussion on a notion of staying with, working through and performing obsolescence.

An itinerary of two rag and bone women

As a response to an invitation from the Kiruna-based *Konstmuseet i Norr*[1]to do an artwork that in one way or another would reach the whole area of Norrbotten, Sweden, we initiated the project *UNRAVEL/REPEAT*. In the initial phase of the project we took on a role of being rag and bone women. The figure of rag and bone women was chosen partly because it is a character that would allow us to travel and reach different parts of the region, and partly because of our interest in the becoming of obsolescence. In the early 19th century, a time characterised by lesser general mobility than contemporary society, rag and bone wo/men travelled between villages to collect discarded materials to be reused and repurposed in new contexts. As they travelled between villages they also became carriers of stories and knowledges. In Sweden, rag and bone wo/men would primarily collect old wool used to produce paper pulp. In the mid-19th century it became possible to produce paper out of wood, which was one out of several factors that contributed to make the practice of rag and bone wo/men obsolete.

In the project *UNRAVEL/REPEAT* the figure of the rag and bone wo/man is reactivated, partly through a reconsidering of what the rag and bone materials and practices of today might be. During our travels as rag and bone women we did not ask for worn-out jumpers, but what we thought of as a contemporary kind of rag and bone: discarded, no longer used mobile phones that might potentially be tucked away in drawers, electronics stashes and so on.

To get into contact with people living in the area an ad was published in one of the local weekly papers. Posters and flyers were distributed in cafés and grocery stores. One day a table was set up in Folkets Hus ("the people's house"), where people could come by with their phones. We also travelled to villages where we anticipated that we might encounter interesting stories of obsolescence. On our journey we brought contracts that we would sign with any person who was willing to hand over their discarded mobile phones (see figure 1). Through the contract we promised to bring the collected materials and stories into the future as responsibly as possible. What this would mean in practice was not predefined in the contract, but was instead to be explored throughout the project as an open-ended promise, in which the collected stories and materials would be reactivated through a process of unravelling and repeating.

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[1] http://www.konstmuseetinorr.se

The aim of taking on the figure of rag and bone wo/man was, in other words, not simply to collect stories and obsolete materials but also to intervene in the becoming of obsolescence. This approach should not be understood as an attempt to provide final solutions to an already known or pre-defined problem. Neither should it be understood as a method for problem finding - as if the problem is there to be discovered by some researcher or artist. Instead, it is an approach for 'inventive problem making' (Fraser 2012, Michael 2012), which, in short, refers to a practice that participates in altering the parameters of a problem. It could also be understood as "staying with the trouble" (Haraway 2011) of obsolescence. As we will show in the following sections, the processes of travelling, unravelling and repeating all became different instances for unfolding, intervening in and performing different versions of obsolescence.

Travelling

During the week we spent travelling in Norrbotten we visited several people in their homes, as well as a youth club, a home for the elderly, a recycling centre and much more. Some spent several hours talking to us. One woman gave us a whole bag full of phones and one man refused to give his phone to us, claiming that there was too much gold in it. Some of the phones we were given had broken screens, some had no batteries and some seemed to be working just fine. What struck us the most during our travels was that what makes a phone work or not is 'mutually constituted' (Suchman 2007) between various actors, temporalities, infrastructures and more, rather than situated in the phone itself as a discrete entity (cf. Houston forthcoming for similar reasoning).

For example, several people that we met mentioned an early kind of mobile phone called Nordic Mobile Telephone (NMT) (see figure 2). While these phones might not have broken screens and still have working batteries, the network they function via is no longer in use, making these phones obsolete. Another example of how a phone becomes obsolete in relation to other things, systems and platforms, was mentioned by a woman who had tried to use her iPhone to do her yearly tax declaration. Despite having bought the phone only half a year ago it turned out to be too old to use for doing a declaration with. While this does not make her phone obsolete, we are reminded that whether or not a technological device works or not "... can only rarely be answered with a clear-cut 'yes' or 'no'. Instead, there are many grades and shades of 'working'; there are adaptations and variants" (de Laet and Mol 2000). To keep a phone and its various relations working, or not, requires work from various actors. For example, the lack of legacy support is most likely due to the fact that phone manufacturers push developers towards the next generation of phones. To work against such a push requires efforts, not only from developers but also from the people using the devices. In a remote village, where the landline had just been removed, the five inhabitants were instructed to use mobile phones. Because the mobile phone reception was unreliable, one of the inhabitants had spent a considerable amount of time, effort and money to set up a system that allows her to get an internet connection through which she now has telephony (see figure 3). Compared to the landline, this configuration demands continuous updates and upgrades, which to her meant money, time and worry.

During our journey we received about 30 phones altogether. Some people did not think twice

about handing over their old phones to us, while others changed their mind after giving it some thought. During our travels we were told that LKAB, the large mining company in Kiruna, was exchanging all of its mobile phones for new ones. Apparently they do this every 18 months. We went there to ask if we could have the phones, but they informed us that we could not (see figure 4). Partly because the phones are not owned by LKAB but rather by another company who leases phones to LKAB and later collect them back again. We don't know the details of this contract, why they were exchanged every 18th month and where the phones ended up after they were collected. One reason for not handing over the phones to us could be that the phones contain sensitive or personal information. Another reason could be that, much like that man who refused to give us his old phone due to the gold it contains, these phones have a potential value to someone else somewhere else when they are no longer used by the staff at LKAB.

Through our seemingly straight-forward request for discarded mobile phones we could see how changing standards, constant updates and schemes such as the one used by LKAB participate in the becoming of obsolescence. We could also see that much work and efforts are needed to keep relations and connections working, or not. And, finally, we also sensed that what becomes obsolete in one context might have a value somewhere else, which leads us over to the next phase of the project, whereby we would reactivate the collected materials through a process of unravelling and repeating.

Unravelling and repeating
In the following phases we continued to explore how to bring the collected materials and stories into the future as responsibly as possible, as we had agreed through the contract that we signed with all those who gave us one of their phones. In the work with unravelling and repeating we were inspired by feminist technoscientists like Lucy Suchman (2002) and her notion of 'located accountability', Maria Puig de la Bellacasa (2012), who argues for an 'ethics of care', and Jennifer Gabrys's (2011) call for 'wasting well'. The figure of cat's cradle, as used by Donna Haraway (1994), has proven especially useful when it comes to dealing with issues of accountability and responsibility. In a lecture, Haraway (2012) describes that when playing the game of cat's cradle we are never fully responsible for the patterns that we have in our hands, but when we have the matter in our hand we have the responsibility to act from that position. Acting from the position of having all of these phones and stories in our hands we initiated a process of unravelling and repeating.

In collaboration with Nicklas Marelius at Unsworn Industries we carried out arduous work on making the phones work again and extracting as much information, such as SMS, pictures, weather reports, contact details and much more, from the phones as possible (see figure 5). We ended up with four usable phones and Marelius, who had done most of the work, handed over about 700 MB of information which he had extracted from all 30 or so of the phones collected.

So as to continue the practice of rag and bone wo/men, to reactivate obsolete materials by bringing them into new relations and to re-tell stories, we then decided to put the collected material together into an SMS novel, which we titled *P.S. Sorry if I woke you*. The name refers both to the fact that we have woken the phones from various kinds of sleep modes (completely dead batteries, no batteries at all, or with locked screens waiting for someone to dial the right

pin code in), and also that the SMS novel might occasionally wake its potential subscribers, since some of the texts are sent late in the evening or early in the morning.

Compared to other SMS novels that primarily use SMS as their means of distributing a story, *P.S. Sorry if I woke* is a novel that consist of conversations between four characters or phones. In other words, it is a novel that is not only composed of text messages but also uses text messag*ing* as the means for telling a story. In this case a story based on what has been said and done in the region - the stories that we collected during our travels and also text messages and images found in the phones. The four phones that participate in this conversation were given new batteries and placed in a capsule that traveled to different locations in the region (see figure 6 and 7). When all the batteries had run out the system was shut down and it was no longer possible to subscribe to the novel. Exactly how long it would take for the batteries to run out was however hard to anticipate since several factors, including the number of subscribers, the reception where the capsules were placed and the model of the mobile phones used within the capsules, would all play a part in deciding the duration of the story.

To reactivate that which has become obsolete, as we did through collecting discarded phones and recomposing the collected materials into an SMS novel, is however not an innocent task. For example, in this particular case we had to deal with a kind of double sensitivity that mobile phones, as well as other forms of e-waste, are characterised by. On the one hand, the mobile phones contain several sensitive minerals, just as they might furthermore contain sensitive or personal information. Reactivating such materialities therefore also requires a consideration of the potential sensitivities that are put to work.

For example, when composing the novel we did not try to preserve or mimic the previous lives of these once obsolete phones, they were instead put into new relations through what we could describe as a kind of relational reordering. One reason for the relational reordering was to not reveal any individual or what they had had been doing through their mobile phones. Another reason was that the messages no longer do the work that they did in their initial relations - such as letting someone know that you are late to a meeting. However, relational reorderings that reactivate these messages can do new work in terms of telling stories of obsolescence and ways of living with technologies such as mobile phones. The tagline for the SMS novel was in line with this: "A novel on being dumped, patched back together again and getting there."

When engaging in such relational reordering we are not only telling stories, we are also part of making worlds. Therefore we also need to consider in what ways such an intervention might participate not only in reactivating the once obsolete, but also in the becoming of obsolescence. For instance, how might the collecting of phones encourage people to buy a new phone so that they could offer their old one to us for taking care of and participating in the project? In what ways might we be encouraging a technological push through the use of particular standards? How did we potentially plan for the obsolescence of the SMS novel?

The two last questions were grappled with in various ways. For example, in the process of setting up the subscription system, we decided that the SMS novel should be sent out via an

SMS-gateway, to subscribers from the four mobile phones that had received bespoke software and a new pack of batteries (the equivalent of two iPhone batteries). This was an attempt at not contributing to a sociotechnical system that would privilege those who had the latest mobile phone. Had we, for example, used iMessages instead of SMS, the project budget wouldn't have been so strained. In terms of distribution we also had it translated from Swedish into oft-spoken languages in the northern parts of Sweden (North Saami, Tornedalen Finnish and Finnish) as well as English for tourists or even overseas contractors who work in the local mines.

Rather than providing well defined solutions of how to live with obsolescence, the relational reordering that took place in the process of unravelling and repeating should be understood as an attempt to "stay with the trouble" (Haraway 2011) of obsolescence. This, we argue, means to care for the various entanglements of these obsolete technologies. It also means to take into consideration how to stay dis/connected and when to let go.

When the batteries had run out and it was no longer possible to subscribe to the SMS novel we sent a message to everyone subscribing at that moment. This was our way of letting go, or handing over to someone else.

> "The batteries are dead. (o), (*) and (e) go quiet. You and the others who have received the whole or parts of this story can now share it. /The operators"

Yes, you woke me

The following is a short summary of the experience of subscribing to Lindström and Ståhl's SMS novel, *P.S. Sorry if I woke you*, and includes a media ecologies take on the piece as well as building on dialogues with Lindström and Ståhl about the overall process and method of their *UNRAVEL / REPEAT* work.

As someone with an interest in different kinds of mediated forms of storytelling, I am fairly accustomed to unusual spaces for storytelling (though this way my first SMS story), but from the beginning, the experience of the story as told via the messaging service was a unique one. To begin with, this is possibly the neediest story I have experienced. Undoubtedly, this is as a result of the story having access to the neediest device of all, my mobile phone, and possibly still the neediest space within that ecosystem, the SMS inbox. It was a strange sensation seeing this largely personal space of the device being intruded upon, at any time during the day and into the night, sometimes arriving in the form of a solitary text and at other times in bursts of three or four. And in this case it is impossible to unsubscribe oneself from the story once you have opted in.

In her book *Digital Rubbish*, Jennifer Gabrys outlines the emergent stories that can be excavated from the seemingly ever-increasing mass of obsolete commodities, particularly those coming out of the ongoing technological push of "new" media. Gabrys (2011, 4) highlights how,

> Through waste, we can register the effects of these devices—the "materiality

effects" as well as "the unintended, 'after-the-fact' effects" or "perverse performativity." Electronics continually perform in ways we have not fully anticipated. […] While these aftereffects are often overlooked, such perverse performativity can provide insights into technological operations that exceed the scope of assumed intentionality or the march of progress, and it can further allow the strangely materialized, generative, or even unpredictable qualities of technologies to surface.

In extracting the original text messages and then transporting them into an entirely unintended fictional context, and similarly, by having the story "told" (i.e. disseminated) by the original phones - now reanimated in what look like miniature, decoratively blinged up iron lungs (see figure 7) - Lindström and Ståhl could be said to set into motion just such a sense of perverse performativity, the patched-up actors in the piece revelling in this newly emergent story, produced as it was out of the very excess of zeal that allowed for such a chance meeting.

For the duration of *P.S.* your SMS inbox is temporarily destabilised, with one never quite sure until you have pulled out your phone as to whether the SMS just received is an urgent message for responding to or a fictional continuation of this demanding little story. This notable quality of neediness reminds one of the needy qualities we have invested into these technological objects that are animated by ever-more sophisticated uses and proliferations of hardware and software dedicated to understanding both the world around us and also ourselves as users in this world. "Would you like to allow direct notifications?" "Can we access your location services?" "Did you know that…?" etc. The mobile phones of today increasingly aim to interface with the various environmental, technological and social infrastructures they can get access to so as to try and constantly adapt to users and their routines. In one sense, they are moving from being our tools to becoming our newest "companion species," to borrow Donna Haraway's expression. As Haraway (2003, 4) has reminded us throughout her work, companion species, whether a Sony-Ericsson phone or an Australian Shepherd Dog, create unexpected constellations of, as she puts it, "the human and nonhuman, the organic and technological, carbon and silicon, freedom and structure, history and myth, the rich and the poor, the state and the subject, diversity and depletion, modernity and postmodernity, and nature and culture."

In *P.S.* there is a strong sense of the phones telling their own story, as nonhuman actors and, in the case of the reanimated phones in Lindström and Ståhl's story, now obsolete entities in the network. The story partly performs a sense of an anticipation of obsolescence in a subtle, touching way. From the very beginning there is a two-fold tone to the piece. The first aspect is the buzz of excitement amongst the youthful set of voices in the story as they message back and forth, speaking of party plans, relationships and so on. But even their excitement seems tinged by a secondary sense of loneliness, a loneliness that a needy interaction with our companion phones can help to temporarily push to the side.

This experience of a mixed, at times barely coherent chattering on the lines within one's SMS inbox shares something of the sense of "cross talk" that Jussi Parikka (2011) describes. Drawing on the Cross Talk piece in Harwood, Wright and Yokokoji's Eco Media project, Parikka

describes the buzz of "a whole new media sphere that 'passes through' humans without us consciously realising it" (ibid, para. 21), and how an "eco media" work such as Cross Talk helps one tune into these many dimensions of relationality. As he puts it, "Relationality is here less a matter of communicating content than a weaving in and out of scales and incorporating them into its assemblage. The Cross Talk mode of communication is in this sense communication as a topological weaving of various scales of perception, motility and sensation into a joint assemblage" (ibid, para. 25) In the interwoven cacophony of conversations of *P.S.*, there is a similar sense of cross talk and crossing of the wires, one in which human and nonhuman modalities of expression both unravel and overlap in multiform ways (see figure 8).

The sense of needy, nervous energy and angst in *P.S.* is also enhanced by the story's theme of a kind of presence or feeling of impending danger. The short introductory SMS texts that precede the story tell the receiver that, "Four discarded mobiles were brought back to life, recharged and placed in separate time capsules. […] When the batteries run out, the voices will disappear one after the other." This lingering sensation and anticipation of a living technological presence that is going to die out manifests itself in different ways throughout the story, often through regular echoes of the demands and requirements of the many technologically-informed infrastructures and ecologies which one potentially moves through. The characters speak of needing to top-up before running out of credit, loosing signal coverage, double checking bus timetables, thinking that someone might be listening in on their calls, the danger of an approaching thunder storm that might put these sensitive media objects of their lives at risk and chain letters that must be forwarded... or else. And then, soon after, this very lively story dies out. Its narrative rhythms - that intrude upon or overlap with the reader's own daily rhythms and help to endow the story with an unpredictable, living dimension - suddenly drop back out of one's everyday experience.

As someone who is exploring how a media ecologies approach can be used for interpreting both everyday and artistic interactions with media, Lindström and Ståhl's work on this project is of interest for the multiple ways that it offers a record and performance, an unravelling and repetition, of obsolescence, not to mention a recent history of the relational ecologies - technological, economic, social, etc. - of this region of Northern Sweden. This includes everything from the forensic work carried out in extracting the text messages themselves to their fieldnotes posted onto their blog[2], in which they reflect on their various encounters with the people, objects, rituals and networks they were coming into contact with. Each of these methods and (re-)materializations in the project can be seen to both spatially and temporally remap and re-presence various practices that emerge from technology, such as local business practices or communal rituals, but also out in scale to things like current or even defunct online hacker communities whose webpages one can search through for help with working with things like JAVA MIDP (Mobile Information Device Profile) kits for unlocking and extracting data from the locked phones, each model with its own history of encryption tactics, developer constraints, firmware allotments and more.

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[2] www.misplay.se/upprepa - which still shows some of the blog posts that were written both in Swedish and in English.

In an age of increasingly entangled technologies that go hand in hand with so many dynamic, interweaving and relational ecologies (material, economic, social, etc.), there is a certain compelling quality to the demanding nature of the mediation of *P.S.* and how it is played out in its content, the touchingly perverse performance of obsolescence that is both the story, with its opening up of a noisy channel of cross talk within one's SMS inbox, and also the painstaking embellishment that is the delivery system for the story that works with the unstable materials of the outdated phones. This is a key element of the project as a whole and one that demonstrates Lindström and Ståhl's dedication to a contract of care for both the human content of the phones but also the materials themselves, these discarded, reanimated Sony Ericsson models (W20i, W810i, W750i, W610i) that continue to append their own postscripts of a potentially dark future, its needy present and the emergent stories that evolve and crossbreed in between.

Conclusion

Through our engagement with the project *UNRAVEL/ REPEAT* and the SMS novel *P.S. Sorry if I woke you*, we have in this paper put forward an understanding of obsolescence as one that has is not static, "dead" or squarely situated in any discrete object, but rather as having an ongoing and active relational quality to it. Through the practice of rag and bone wo/men we have aimed to reactivate currently no longer used, dormant mobile phones through a kind of relational reordering. Such a relational reordering is not to be understood as providing a final solution to issues of obsolescence, but instead as one to be continuously worked through, cared for and stayed with.

In the initial phase of the project, where discarded mobile phones were collected, we attended to the various relations that participate in the becoming of obsolescence, such as standards and constant updates. We also attended to the mundane and hard work that is made in everyday life to keep these relations working. In the process of unravelling and repeating these materials we practiced a kind of relational reordering with the aim of staying with the trouble of obsolescence. That means posing questions of how we potentially participated in the becoming of obsolescence as well as how we would stay dis/connected with the collected materials and stories.

In the case of the SMS novel, *P.S. Sorry if I woke you*, this working through takes a performative modality that aims to animate the spectre of obsolescence through the found and reworked materials themselves, trying to tune the subscriber into a kind of narrative cross talk that weaves in various techno-ecological scales of relationality, human and nonhuman, intended and unintended, sedimented and emergent.

Finally, we would like to stress that reactivating the obsolete is not innocent. As we have put forward, e-waste is characterised by a double sensitivity since it contains both minerals and potentially sensitive information, which suggests that we need to pay extra attention to what new relations these materials are put into.

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Figures

Figure 1
Signing contracts.

Figure 2
Nordic Mobile Telephone.

Figure 3
Technological assemblage to enable telephony through the internet.

Figure 4
Mobile phones handed in by the staff at the mining company LKAB.
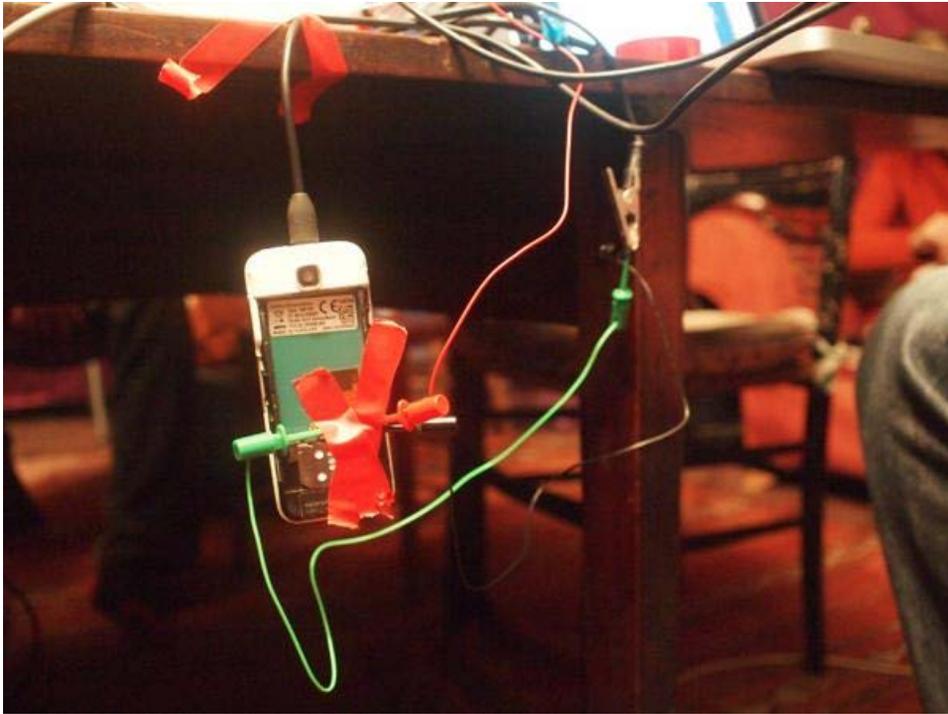
Figure 5
Extracting information from the collected mobile phones.

Figure 6
New battery packs.

Figure 7
Capsules gathered at the opening of *P.S. Sorry if I woke you.*

Figure 8
Extract from English version of the SMS novel.