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# Disposal or dispersal?

## Environmentalism and final treatment of the British dead

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### Abstract

In current environmental discourse, disposal does not remove and destroy waste but rather transforms it into something useful or harmful and/or re-locates it. This article shows how this operates when the 'waste' comprises human remains, specifically how innovative 'dispersal' practices are now challenging the 'disposal' discourse of nineteenth-century burial and twentieth-century cremation which contained the dead within special death spaces separated from everyday environments for living. Since the 1990s, disposal practices have been supplemented by practices with an entirely different rationale. Instead of containing the dead in safe, out of the way places, new practices disperse human remains back into environments that sustain the living, whether this be via natural burial, new cremation practices or new technologies currently being developed, namely alkaline hydrolysis and freeze-drying. Promoters of all these innovations appeal to ecological usefulness, blurring the boundary between the living and the dead, thereby positioning the dead body as a gift to the living and/or to the planet. Thus, a new ecological mentality is increasingly framing the management of all the dead – not just those interred in natural burial grounds. In the light of this, we reconsider land use policy, and question death studies' use of the term 'disposal'.

### 1. Introduction.

In a world increasingly influenced by environmental issues, there is growing concern about the management of rubbish and waste. From an ecological perspective, rubbish is never entirely disposed of; rather, it remains part of the planetary eco-system in one shape or form. This article looks at the final waste matter that at death each of us will leave behind on the planet, namely our own bodies. Specifically, the article analyses innovative and influential responses to the question: will our post-mortem bodies become for the planet a burden or a gift?

Our exploration of the evolving terrain of body disposal shows first how environmentalist discourses (that is, environmentalist language, technologies and practices) are being adopted in the UK deathcare industry by a range of authorities, businesses and entrepreneurs. We discuss four innovative practices: natural burial, new cremation practices, alkaline-hydrolysis, and freeze-drying. Second, we consider how discourses around each of these practices serve to de-sequester human remains from their final resting place and re-locate them within spaces inhabited by the living. This has previously been shown for natural burial, which is often contrasted to other forms of disposal. We demonstrate, however, the discursive *similarities* between natural burial and other innovative practices. Third, we argue that environmentalist discourses blur the boundaries between environments for the dead and environments for the living. To put it succinctly, environmental language and practices mean that the British dead are decreasingly being *disposed* of somewhere out of sight in sequestered spaces and are instead increasingly becoming subject to a managed process of

*dispersal* into environments inhabited by the living, in which – via ecological and altruistic rhetoric - the dead are positioned as a gift to the living and to the planet. In environmental discourse, all waste disposal is a process not of removing and destroying waste but of transforming and re-locating it; in this article we show how this operates when the ‘waste’ comprises human remains.

If theories about the sequestration of death within modernity (Giddens, 1991; Mellor & Shilling, 1993) retain any force, then the dispersal of human remains into spaces for the living should lead to public disquiet. Petersson (2007), for example, considers that the public require the dead to be placed in locations clearly demarcated from those inhabited by the living. By contrast, we report initial evidence that the new blurring of environments for the living and environments for the dead may be more acceptable, at least to the British public, than sequestration theory would predict – with implications both for policy concerning the management of dead bodies and for theory concerning the dead, the living and the environment.

## **2. Historical background.**

Until the early nineteenth century, Europe’s dead were buried in a (usually rural) churchyard, often in the heart of the community. On unearthing bones, the gravedigger either reburied them or re-located them into a charnel house or ossuary. With the late eighteenth century expansion of towns and associated mortality, however, traditional burial practices began to be problematic. Gravediggers were unearthing rotting flesh as well as bones, and health implications arose for those living next to urban burial grounds. Thus nineteenth century cities around western Europe and North America developed modern cemeteries situating the dead within new bounded spaces on urban outskirts. These cemeteries were intended to provide a visible *memento mori*, a reminder of death, both when viewed from a distance and when experienced as a fashionable destination for Sunday afternoon strolling. Integrating awareness of mortality into life (Tarlow, 2000), they nevertheless separated the actual physical remains of the dead safely below ground, separated from everyday life (Warner, 1959). The dangerous dead could no longer infect the living (Curl, 1993).

There were also differences between countries. Continental Europe rationalised the re-use of graves in order that local urban burial grounds could be sustainable, and even today there are examples of new cemeteries being integrated into everyday space (Clayden and Woudstra, 2003). In the UK, however, once buried ‘six foot under’ in the out-of-town cemetery, the dead would remain there forever (Loudon, 1981) - a vision also embraced in North America. Not disturbing bones can therefore be regarded primarily as an Anglophone concept, keeping the British dead more firmly in their place than their continental counterparts.

By the mid twentieth century, the UK had developed cremation quicker than any other Western society, sequestering the dead even more effectively than did cemeteries (Grainger, 2005; Jupp, 2006). While the nineteenth century cemetery was designed to be visible from a distance, the twentieth century British crematorium - the building housing the cremator(s) and a chapel where the funeral is held - must by law be located at least two hundred yards from the nearest public road and is typically concealed from the public highway. Further, crematoria designs have downplayed the building’s main function. British crematoria thus sequester and hide the burning of bodies.

There is one idiosyncrasy to the modern history of British body disposal however. Although English and Scots law restricts the disturbance of buried remains, the UK has remarkably few laws governing the dead’s initial disposal (White, 2000); so, for example, families may bury whole bodies or cremation ashes anywhere that poses no public health

hazard. While burial on private land, though legal, is rare (Walter and Gittings, 2010), burying and scattering ashes in all manner of locations is both legal and increasingly common (Prendergast, Hockey and Kellaheer, 2006). In contrast, German law requires that the dead – including ashes - be buried only in authorised burial grounds by authorised personnel. Swedish ashes may be scattered by the family but only by official permission, which is not always granted (Davies & Mates, 2005, p.60). In the USA, although burial on private land is possible, commercial interests have pressed several state governments to control both whole body and ash burial (Mitford, 1998). The Germanic and Scandinavian dead, and the dead of some American states, are thus by law kept ‘in their place’.

This sequestration of human remains is now being challenged by environmental discourses which promise not just to ‘bring the dead back home’ into specific environments meaningful to the bereaved (Kellaheer and Worpole, 2010), but into the entire environment inhabited by everyone. We now explore this development in the UK context.

### **3. New environmental discourses: from disposal to dispersal.**

In contemporary environmental discourse, as Thompson (1979), Hetherington (2004) and Moore (2012) have pointed out, disposal – of anything – is never final. Waste disposal does not exterminate matter, but re-locates and/or transforms it. Environmental discourse thus changes the understanding of permanence and disposal, for nothing is got rid of ‘forever’. Even if disposal succeeds in removing waste solids and liquids, it is only to turn them into gasses that may cause greenhouse warming or may have other effects on living humans, present or future.

Environmental discourse has since the 1990s found its way into the British burial and cremation industry. In this period, innovations – natural burial, heat recycling from crematoria, and proposals to dissolve or freeze dry human remains - are typically promoted using environmental rhetoric, as will be shown below. Each of these innovations clearly recycles or brings physical traces of the dead back into the everyday environment, which rather than being downplayed is typically highlighted in promotional material. While most previous studies have focussed on just one innovation, our article is the first to look at them together and thus to perceive their similarities, in particular their ambition to transform the dead into a gift to the planet and/or society. We first introduce each innovation in turn, before then going on to discuss their similarities.

#### ***a) Natural burial.***

Sometimes referred to as woodland burial, natural burial is the disposal innovation of the last twenty years that scholars have already identified as blurring the boundary between the living and the dead. Unlike the other innovations, it has received considerable academic attention (Clayden et al 2010; Clayden, 2011; Davies and Rumble, 2012; Hockey et al 2012; Rumble, 2010).

Since 1993, well over two hundred natural burial grounds (NBGs) have been established around the UK; these bury bodies and ashes in ground that is, or is intended to become, woodland or meadow. The intention is that, when full, the meadow or wood will become an ordinary part of the natural landscape, with a number of NBGs planned eventually to become nature reserves under the auspices of a wildlife charity or trust. Importantly, the aim is specifically to create a space that looks not like a burial space, but one that looks, or will in time look, like a meadow or woodland full of local flora and fauna. This ethos has been widely transmitted and generally well received by both mourners (Rumble, 2010) and casual visitors (Hockey et al, 2012). As one visitor told

Rumble, 'You don't actually feel like you're walking through a graveyard, you're walking through a forest or wood.' (2010: 219)

In natural burial discourse, human remains nourish nature and become part of the natural world that sustains the living (West 2008). Such rhetoric invokes an animate gifting to nature, to fecundity, and to future generations, which in some ways resembles the altruistic rhetoric of organ donorship (Davies and Rumble 2012; Rumble 2010), which we turn to later. Unlike in some parts of Eastern Europe where there is a folkloric concept of the soul becoming a tree (Schama, 1995), British natural burial discourse depicts a *physical* connection in which human remains feed the tree, constituting a tangible connection on which possibly spiritual value/meaning can be placed. In Rumble's research (2010:182-183), one pre-registered NBG user remarked:

"For *me* choosing a *woodland* burial site as opposed to a *traditional* cemetery was *really* about the fact that this is much more in contact with the whole notion that we're part of the whole of creation you know. It's *not* about these great monoliths and what goes on after. It's much more simple... it fits in with my understanding that we are one with the whole of creation. You know, we go *back* into that oneness with creation again as far as I'm concerned."

Elsewhere, Davies and Rumble (2012) have argued that the popularity of natural burial is associated with a distinctive mode of spirituality that incorporates ideas of gift giving and kinship, encapsulated in people choosing natural burial because they desire to 'return to nature', 'give something back' or 'go back to that oneness with creation'. Such views make the naturally buried dead 'valuable' to the living and to the planet - by fertilising the soil, they propagate new life for the benefit of nature and enjoyment of the living. In this way the corpse is no longer a *toxic* body to be disposed of but rather a *fertile* body to be dispersed back into the soil to nurture new life from its very decomposition (Davies and Rumble 2012; see also Rumble 2010).

Thus, far from sequestering death and the dead, natural burial returns the dead to the living through the idiom of 'giving something back' and 'fertilising the soil'. This is expressed in NBG promotional materials, in management practices and subsequent site rules and regulations, and in customers' and visitors' perceptions. In short, natural burial challenges the life/death boundary by bringing the dead into the realm of the living in 'naturalised' burial grounds where the living may relax, take picnics, dog walk and so on in 'natural' surroundings that - unlike traditional cemeteries - are not visibly a place specifically of and for the dead. The dead metaphorically and literally give back to the living by nurturing new life (Rumble 2010; Davies and Rumble 2012).

## ***b) Cremation***

At first sight, a modern cremator - a computer-controlled, high tech furnace consuming large amounts of energy - seems the very opposite of natural burial. Yet even here, environmentalism is driving new language, new technology, and new operating practices, with complex consequences for the living/dead boundary. To understand this, we examine new operating practices which concern recycling and/or the environment, namely recycling of medical body parts, emissions control, and heat recycling.

First, it is now common practice for medical implants that are not vaporised, such as titanium hip joints and artificial knees, to be collected after cremation and recycled back into the world of the living. A handful of companies in both Europe and North America now recycle the metal for further use and donate a portion of annual net profits to charity.<sup>1</sup> Many

British crematoria participate in these recycling programmes, thereby transforming the human body into a useful resource. Second, crematoria emissions also include various vaporised substances from the coffin (veneers, synthetic handles) and things placed within the coffin (teddy bears, toys), along with mercury teeth fillings - estimates of the proportion of airborne mercury in the UK emanating from crematoria have varied from 5.3% to 15.7% (DEFRA 2003). Environmental legislation in 1992 and the Oslo-Paris Convention (1998) have required the scrubbing of emissions to remove harmful products. By 2012, crematoria were required to reduce their mercury emissions from dental fillings by 50%; by 2020, the reduction must be 100%. In order to achieve these targets, crematoria emissions are cooled so the mercury can liquefy and be collected, which means that much of the emissions heat goes into the cooling system rather than up the chimney. The equipment that reduces emissions can thus also recycle heat - which can then be used to heat either the crematorium building or other buildings nearby. The technology and economics of this are not, however, straightforward (Stopher, 2010).

Heat recycling is significant for our argument because the fuel for burning a human body comes only in part from the gas burners and from the wood of the coffin; it also comes substantially from the body's own fat.<sup>2</sup> Thus recycling the heat produced in cremation entails burning the dead's fat to warm the living - which might be expected to be potentially contentious. A recent example, however, suggests otherwise. In 2011, Redditch Borough Council announced that it would recycle heat from its municipal crematorium to warm a local leisure centre swimming pool. Annually, the recycled heat would meet 42% of the leisure centre's heating needs and save approximately £15,000. After initial public opposition, Redditch Council's pro-active transparency about the plan led to considerable public support. Council leader Carole Gandy remarked that "... since news of the proposals broke and following consultation we undertook in Redditch, about 80% to 90% of the responses received by email, letter, phone calls and messages posted online have been in favour of the idea."<sup>3</sup> The council's commitment to transparency in this matter and its willingness to use social media to counteract initially negative tabloid media coverage is unusual, and unlikely to be widely replicated (John, 2011). This suggests that heat recycling may be limited more by municipal timidity than by any inherent public hostility.

But there are clear incentives. The cremation industry has started to recycle implants, scrub emissions and recycle heat in response to financial inducements and legal requirements to protect the environment. Together, this means that cremation is no longer a simple matter of disposing of the human body, but instead becomes a carefully managed process of reuse in which the living are more adequately protected from global warming and from mercury and other toxins emanating from the coffin and its contents, while the cremation itself becomes useful for warming the living and in metal recycling. Recycling and conservation of energy mean that the living/dead boundary is at the same time both strengthened and weakened: the toxins are more effectively disposed of, but useful heat generated by burning bodies may now be dispersed to everyday spaces to warm the living rather than go wastefully up the chimney.

### ***c) Alkaline-Hydrolysis (Bio-cremation / Resomation®)***

Two entirely new forms of disposing, or rather 'processing', of the dead have received considerable discussion within the death care industry in the UK and beyond. They are alkaline-hydrolysis and freeze-drying - the former is operational in several US states and is being actively promoted in the UK, while the latter is still at the conceptual stage. Both employ environmental rhetoric that makes explicit that the end products are returned to the everyday environment. Along with cremation and natural burial, their environmental impact has been assessed in a recent Dutch study (TNO, 2011).

Alkaline-hydrolysis was originally developed in the 1990s in order to dispose of animal carcasses. Its use with humans has begun on a small scale in the USA where it is marketed as ‘bio-cremation’ by the company Matthews International; it is being discussed in the UK where it is generally known by the term ‘Resomation’®. Resomation Ltd promotes the process primarily on environmental grounds such as controlling mercury and other emissions, and reducing energy consumption and our carbon footprint (Sullivan, 2013). Physically, the process dissolves the dead body’s organic matter in a stainless steel container filled with water and potassium hydroxide; heat and pressure are added, reducing the body to a liquid that can then be recycled at the local waste-water treatment plant. Other proposed uses of the fluid include agricultural fertilizer. The small pieces of bone fragment that remain are crushed into ‘ashes’ and given to families, as in cremation. Any remaining inorganic matter, such as mercury fillings or medical devices, can then be recycled.

If and when alkaline-hydrolysis becomes a more widespread mode of disposal for human bodies, there will be no guarantee that drinking water will not have been recycled from this process or that food will not have been grown using fertiliser from human remains. It is difficult to predict whether this will prove to be culturally acceptable, though market research in England and Scotland commissioned by Co-operative Funeralcare provides optimism in this regard (Thomas 2010, 2011). At present, it is normal that water from sewage treatment plants becomes part of the mains water supply, and that manure contributes to the growing of crops. If food and water produced, in part, through the processing of human and animal urine and faeces is acceptable, the question remains whether food and water produced in part through the processing of human remains will prove a step too far. Actually, this already happens in a number of settings. At some natural burial grounds sheep may be grazed, orchards planted, hay crops used to feed livestock, and eventually, some NBGs may return to a productive agricultural function. Indeed, sheep sometimes graze in traditional English churchyards and organic matter evaporates up crematoria chimneys, eventually to descend dissolved in rain. If, however, an operator considers the liquid product of alkaline-hydrolysis to be, in the public’s mind, not profane matter but sacred water that was once ‘the water of life’, then there is the option of the effluent water going not down the drain, but into a special part of the facility’s grounds, akin to the ash scattering area of a crematorium.

Alkaline hydrolysis is currently legal in eight American states, where a few funeral homes are now offering the process to their customers (Sullivan, 2013). In Florida, for example, cremation is defined as a thermal and mechanical process, so alkaline-hydrolysis complies with the law. State legislators in New Hampshire changed the law to encompass the process but then revoked the change a few years later over concerns that human remains were being sent down municipal drains. A local newspaper provided a flavour of the arguments for and against:

“Supporters...did not object to the liquid residue being spread as fertilizer or flushed into the sewer. ‘I would like to think someday I would give something back to this earth that gave me the life I have,’ said Nottingham Republican Frank Case. Opponents said the process was disrespectful. ‘I don't want to send a loved one to be used as fertilizer or sent down the drain to a sewer treatment plant,’ said Bedford Republican John Cebrowski.” (Love, 2009)

In the UK, alkaline-hydrolysis (like any method of disposing of bodies) is not illegal, so long as it is not performed in an unlawful way such as offending public decency or contravening other (e.g. public health) laws (White, 2011). But before making alkaline-hydrolysis available to the public, companies and municipalities in England are waiting for the Ministry of Justice to draw up specific regulations for its practice (Thomas, 2010, 2011).

Since alkaline-hydrolysis does not involve cremation's very high temperatures, medical implants such as titanium hips could also be recovered in a better state than via cremation (Sullivan, 2009). The companies promoting alkaline hydrolysis have stipulated that such implants could be sold or given to developing countries to be re-used. This appeal to those motivated by charity or altruism is rhetorically similar to the language of organ donation. If this comes about, inorganic parts from the dead can be re-used and recycled in another living body, thus turning the implants into gifts to others beyond death.

#### ***d) Freeze-drying (Promession / Cryomation)***

A somewhat similar alternative to cremation has originated in Sweden, although it is in its infancy compared to the other innovations discussed in this article. Susanne Wiigh-Mäsak, who identifies herself as an 'instructor on ecological cultivation and composting', has invented a process called promession. Made public in 2001, this procedure uses liquid nitrogen to super-cool the body to a point at which it becomes friable and can be shaken into a kind of compost which, when shallow buried in soil, quickly converts into mulch.<sup>4</sup> Trademarked as Cryomation, this high-tech process is promoted with an emphasis on the 'natural'. The Cryomation website highlights its environmental credentials, with the headline: 'Cryomation will deliver a safer, more environmentally friendly option for people that sustains the life of the environment.'<sup>5</sup> The Promessa website is headed 'Promession – ecological burial', and depicts young shoots growing out of compost. This implies that, in countries such as the UK where human remains may legally be buried almost anywhere, a family can use a deceased member's remains as compost in their garden. Even in countries where the law would require the compost to be used in a legally designated burial ground, the image is still of humans becoming part of the natural cycle, symbolised not by a stone marking the dead but by new shoots creating new life for the living. Like alkaline-hydrolysis, the concept is being promoted by the British natural burial movement, as it promises both to use less energy than cremation and to produce a more environmentally useful end-product.<sup>6</sup> Unlike alkaline-hydrolysis, there is no country in which it is yet operational so it is not yet possible to ascertain how acceptable the process will be regarded by the public. In the UK, its legal status is the same as alkaline-hydrolysis.

## **4. Discussion**

### ***a) Similarities***

These four innovations – natural burial, new cremation techniques, alkaline-hydrolysis, and promession - have much in common. Their advocates all speak of recycling dead bodies into gifts to the planet, thus displaying a discursive shift from disposal to dispersal. Though the environmental claims of natural burial have long been noted (Davies and Rumble, 2012; Rumble, 2010), in the following section we discuss how all new technologies for final treatment of the body are now making similar claims. (Of course, we do not wish to overstate our case – as well as these similarities there are both significant differences between the four innovations and variations within them. But our argument below is that the discursive similarities are significant and worth analysis in their own right.)

#### *From finality to process (from disposal to dispersal)*

Each of these innovations physically and linguistically highlights 'process' over 'finality'. The issue that each addresses is not how waste is to be finally disposed of, but what it is to be transformed into and where it is to be re-located. Each innovation's solution is clear: rather than, or as well as, placement within a designated death-space meaningful to the bereaved,



human remains can contribute to the environment that sustains the planet and its population. Each technique seeks to valorise the re-use of human remains - whether as heat, compost, fertiliser or implants – for the good of society and/or the environment.

This represents a significant shift in thinking about the fate of the dead body. As a result the language around final treatment of the body may need to be rethought. The proclivity of death studies researchers to refer to ‘disposal’ (as in the well-established international conferences on *The Social Context of Death, Dying and Disposal*) reflects the sequestration discourse of nineteenth century cemeteries and twentieth century cremation and is, potentially, becoming outdated. Supplementing cemetery burial which, at least in the UK and a number of other Anglophone countries, retains the discourse of disposal once and for all into a designated death space, this emergent ‘dispersal’ discourse is situated within a fresh cultural and legal context in which waste is understood not to disappear but to transform into something else that will inevitably affect, and hopefully benefit, the environment.

Certainly, for many years some private individuals have liked the idea of burial as providing food for worms (Walter, 1990), and the idea of recycling through burial has long been present within popular English culture, as in the popular Yorkshire dialect folk song *Ilkley Moor Baht 'At*:

..... Then us'll ha' to bury thee  
Then t'worms'll come an` eyt thee up  
Then t'ducks'll come an` eyt up t'worms  
Then us'll go an` eyt up t'ducks  
Then us'll all ha' etten thee

Even further back, the Roman emperor Marcus Aurelius wrote:

Death is nothing but a dissolving of the elements of which each living being is composed. If the elements themselves are not harmed by each continually changing into another, why should a man feel any dread of the change and dissolution of all his elements? For it is as nature wills it, and nothing is evil which nature wills. (Aurelius, 2006, book 2)

So, our argument is not that nobody has ever before thought of burial as recycling. Rather, we argue that official and commercial discourses (across a range of technologies and practices) are changing from sequestration to recycling, from disposal to dispersal, thereby merging the dead with the living. Whether this may in time modify how citizens as a whole regard the dead remains a question, though some purchasers of natural burial plots already invoke this discourse even if environmentalism does not initially motivate all purchasers (Rumble, 2010).

### *Ecological utilitarianism*

Human remains have traditionally been viewed as sacred, having symbolic rather than use value; in this view, utilitarian uses for human remains are sacrilegious (Synott, 1992). But in recent decades recycling has become such a self-evident ‘good’ that the notion is now being transferred to human remains, with surprisingly little resistance. The dead can now be regarded as useful to nature.

Mirroring other aspects of modern society that have been re-enchanted, is there here a re-enchantment of death (Lee, 2008), in which by being useful to the environment and/or through ‘gifting’ (to ‘nature’) our remains gain new value? This value would not comprise traditional sacredness, but rather a utilitarian contribution to ecology. Davies (2005) has speculated whether British society’s growing institutionalising of ecological ethics produces a

‘secular eschatology’ in relation to identity after death. He argues that religion is being replaced by an ethics–and–spirituality discourse, in which individual immortality in heaven is replaced by ecological immortality for humanity on earth. Natural burial, indeed we would argue any mode of disposal whose rhetoric focuses on the dead ‘being of use’ for the wider living world, celebrates kinship *with* the natural world. Current perceptions of nature and natural orders materialize a mode of spirituality that makes sense to many people with or without a personal faith, as Rumble’s research concluded, which she developed further with Davies (Davies and Rumble, 2012). The gifting and recycling metaphors that are capitalized upon in people’s self-narratives about why they would choose one mode of disposal over another operate beyond a sacred–utilitarian dichotomy; the formerly utilitarian understanding of recycling or reuse is now re-enchanted to grant a spiritual dimension to such practices that shifts the focus onto gifting, even after death (Rumble, 2010).

There is here something sacred, something utilitarian, something ecological, all bound up together. Historian Philippe Ariès (1981) famously wrote of *mentalités* of death that characterise particular historical epochs. Maybe we are witnessing the emergence of a new death paradigm, a new death mentality, one of ecological utilitarianism offering ecological immortality (Davies 2005)? Certainly the nineteenth century notion of the ‘polluting dead’, who have to be removed through deep burial or fire, is now supplemented by the notion of the ‘useful dead’, who perhaps thus become re-sacralised, even as (in Britain and most of Europe) religious concepts of the afterlife decline (Walter, 1996).

But money is still made out of recycled human bodies. The new ‘dispersal’ techniques to process the dead are being led by innovative entrepreneurs, all of whom have to break even and some of whom may be motivated more by profit than by environmental concerns. How this commercial interest intersects with discourses of ‘nature’ and of ‘gift’ remains to be seen. But what is clear is that even commercially savvy entrepreneurs and politically sensitive municipal crematorium managers, however green or otherwise they are as individuals, are using a ‘dispersal’ discourse because they consider this will sell and/or be politically acceptable. They clearly sense a potentially receptive public.

#### ***b) Precedents***

Though the dispersal discourse has clear environmental roots and credentials, precedents come also from other developments in the treatment of the late twentieth century dead.

*Organ donation.* The re-use of human bodies was formally pioneered a few decades earlier than the innovations this article discusses, namely in cadaveric organ donation for surgery (Youngner, Fox and O’Connell 1996). This took time to be accepted but surgery using organs from deceased donors is today generally seen as unproblematic, though there is a minor discourse about the deceased person’s identity problematically ‘reincarnating’ within the recipient. We do not argue that organ donation is part of the discourse of natural burial, cremation, promession or alkaline-hydrolysis. Far from it, organ donation concerns the medical granting of life to organ recipients rather than ecology or the environment. Nevertheless, organ donation set a precedent in introducing the concepts of the useful dead, and of the dead as a gift to the living. Arguably it has then become easier to speak of the dead sustaining life in an ecological sense.

#### *Private ash rituals*

Just as organ donation helped prepare the rhetorical ground for the concept of gifting, so another, more informal, change in British cremation practice has prepared the rhetorical ground for the concept of dispersal. As well as the ‘top-down’ innovations discussed in this article, the private scattering and burial of ashes has become popular in recent decades

(Hockey, Kellaheer and Prendergast, 2007a, 2007b; Kellaheer, Prendergast and Hockey, 2005; Prendergast, Hockey and Kellaheer, 2006). Practices typically entail scattering or burying the ashes within spaces that have personal meaning because of an association with life rather than with death: the back garden, a football ground, a favourite beach or mountain top. Just as the natural burial ground is perceived as a place of life, so the final resting place for ashes is increasingly seen as drawing meaning from its association with life rather than from its demarcation as a death space. But the ashes are still deposited, *disposed* of, in these places.

The concept of dispersal is found, however, in other ash practices (Prendergast, Hockey and Kellaheer 2006). One is when ashes are dispersed between various mourners, though arguably this is not so much dispersal as disposal in separate locations. More significant is the practice, engaged in not only by Hindus, of sprinkling ashes onto rivers or the sea, with the imagery of being dispersed among the waters of planet earth, away from any specific place. Finally, while the reality of scattering on land causes the ash to fall promptly to the nearby ground, the *image* of scattering ‘to the winds’ to become ‘Part of all you see / The air you are breathing’, to quote Ewan McColl’s 1980s song *The Joy of Living* (Davies, 2005, pp.109-110; Walter and Gittings, 2010, pp.171-2), clearly invokes a vision of dispersal.

### **c) Public acceptance.**

This article primarily concerns not public attitudes, but an emerging discourse within the deathcare industry. A note on public attitudes is nevertheless in order. Apart from natural burial, there is little data on public acceptance of, or resistance to, the other new practices of processing human remains discussed in this article, but there is evidence where operators are open with the public of a perhaps surprising lack of opposition. Redditch Borough Council’s experience with heat recycling is an example. There are, however, objections. Echoing Petersson (2007), critics of natural burial complain that NBGs do not look like burial grounds and that this represents a denial of death. For them, a place of burial should look like a place of burial.<sup>7</sup> If NBGs are not ‘read’ as burial grounds (Clayden, 2011), or if crematoria are not explicit about their re-use of heat, then the dispersal concept will not disperse into public consciousness.

Since behaviour modification is an effective route to modifying attitudes, sanctioned behaviours in daily life such as household recycling and home energy-saving initiatives may well have been effective in changing people’s attitudes (Davies, 2006). So too, dispersal may become more acceptable the more it is practised. Attitudes can be shaped by practice, as well as motivate – or impede - practice.

### **d) Private meanings.**

Perhaps more intriguing than public acceptance or lack of it, are the private meanings that individuals may give in future to dispersal techniques, whether as users or simply as citizens. We have shown how central to industry discourse about dispersal is the concept of gifting, but this is very much in terms of the dead body and of abstract images of nature. Individuals, however, think in more personal terms about their post-mortem identity, continuity and postself (Kamermaan, 2003). How then might individuals conceive of ‘dispersal’ gifting in these more personal terms?

Some thought about this has been given in relation to natural burial. Like organ donation where there is empirical evidence of donors and recipients feeling that the donor’s identity and even personality are somehow transferred to the recipient (Youngner, 1996), those interviewed by Rumble (2010) who had either pre-registered for a natural burial plot or been bereaved and who subsequently visit the site described the soil as retaining a part of the deceased. Davies and Rumble (2012) have theoretically argued that those buried in natural burial grounds constitute ‘inalienable gifts’ given not in reciprocal exchange but offered to

the gods as identified by Marcel Mauss's 'fourth obligation'; gifts that can never be fully separated from the original giver (Mauss 1990; see also Godelier 1999, and Davies 2002). Thus

“...the deceased is, as it were, retained in the gift of their own corporeal body to the soil. They, literally become part of the soil while, symbolically, they maintain some sense of identity with that particular piece of ground...the giver or preregistered user gives of his or her self to something that imaginatively and symbolically transcends them. This offering could be (a) to the divine and, or, to god's creation, (b) to society and its values by sustaining the earth for future generations or repay debts to society or (c) to one's sacred origins in the sense of the soil from which human life is nourished.” (Davies and Rumble, 2012:108)

Symbolising natural burial in terms of the image of a fecund corpse, offered as a gift to the soil, society or future life, opens up the possibility of seeing the practice as having a spiritual dimension. At any rate, that is one interpretation of natural burial. How the other innovations, as they come on stream, may be experienced by families has yet to be researched. Also for further research are meanings in countries other than the UK. Thus Raudon (2011: 18) argues that green burial in New Zealand is less about ecology than about getting close to nature - to the bush, to the outdoors: 'Perhaps in England it is considered one of the minor duties of good citizenship to give back to the world at the end of life while in New Zealand it is regarded as one of the rights of all citizens to lay claim to the land, even after death.' Similar meanings may apply in the USA, another immigrant society with its national mythology of the American soil in which, to quote Woody Guthrie, 'this land is my land' (Walter, 1993).

In so far as personal identity is expressed in afterlife beliefs, Hertz (1960) would indicate that such beliefs are connected to what happens to the deceased's body – particular beliefs justify particular bodily practices, while particular bodily practices render particular beliefs plausible. Thus cremation in the East is associated with reincarnation; burial in the Middle East and Europe is traditionally associated with bodily resurrection; and modern western cremation could well be associated with belief in an eternal soul which separates at death from the body (Davies 1990). What belief(s) might resound with dispersal practices, whether the innovations discussed in this article or contemporary scattering of ashes by families? One hypothesis, for which we as yet have only anecdotal evidence, is that dispersal of the deceased's physical being throughout the environment fits the apparently increasingly popular idea (Walter, 2011) that the dead become not (only) souls lodged in heaven but angels able to fly anywhere and everywhere, watching over their loved ones on earth.

## **5. Conclusion.**

In this article, we have demonstrated within the UK deathcare industry the arrival of a new ecological paradigm, a new grand narrative, that is both utilitarian and sacred and that brings human remains back into the environments that sustain the living. If we are correct, and if this paradigm develops and gains public acceptance, there are implications for policy, and for death studies.

### *a) Policy.*

Since the mid nineteenth century, planning policies for the dead have been premised on their physical removal from spaces occupied by the living – especially in the British Isles and North America. This is now being challenged, or at least supplemented, by the new concept of dispersal of remains into natural and everyday environments, which in turn will likely

affect policy and planning. So far, the British planning process and the courts have not stood in the way of new ways of processing the dead, so it is possible that the legal and institutional framework for processing dead bodies will evolve in the twenty first century to accommodate dispersal practices. By contrast, the German legal system requires whole bodies to be buried in a conventional grave in a designated churchyard or cemetery, so natural burial can bury only ashes and it may be that other innovative techniques will not be easily accommodated legally and institutionally. In the USA, the legal situation is determined for each practice state-by-state. Thus legal histories and frameworks make innovation more or less possible, depending on the country.

Though proponents of these new technologies emphasise their benign effects on the physical environment, the major effect may prove to be on social attitudes. The contribution of these technologies to, for example, reducing greenhouse gasses will be outweighed several thousand-fold by the construction of new coal-fired power stations in China, but they may well get the general public to think differently about not only the environment, but also death, the dead and the afterlife. This will require careful research into how the media, public opinion and individuals themselves give meaning to these practices as and when they come on stream.

#### b) *Death studies.*

With fresh memories of overflowing urban churchyards, the architects of mid-nineteenth century cemeteries aimed to ensure that the dead no longer harm the living. In the early twenty first century, harm reduction is being replaced by a vision of the dead positively contributing to the living and to the planet. This needs to be incorporated into scholarly debates about sequestration. Howarth (2000), among others, has shown how contemporary discourses of bereavement blur the boundary between the living and the dead: we have shown how this works discursively in terms of the *bodies* of the living and the dead and that the context for understanding this is not death and dying *per se*, but ecology. Although many people, both workers within the death care industry and mourners, still think in terms of the dead body's final disposal, growing numbers do not. In an era that increasingly acknowledges that nothing is disposed of forever, we thus invite colleagues in contemporary death studies to question whether 'disposal' is still an adequate umbrella term for all techniques for dealing with human remains. Bodies are in one sense disposed of, in another sense dispersed into the environment; neither term embraces the totality of what happens to human remains or how people today think about them or their own post-death self. We therefore invite suggestions for a more comprehensive term.

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<sup>1</sup> See for example <http://www.orthometals.com/>

<sup>2</sup> This depends on a) the body being cremated (an overweight adult has a lot of fat, a baby virtually none), b) operating procedures (firing up from cold each morning to burn a body requires much more gas than does running a cremator continuously). Cremators running continuously for a few days in order to save gas, as is now deemed good environmental practice, thus rely substantially on body fat for fuel.

<sup>3</sup> 'Cremator to Heat Pool Plan in Redditch Passed', BBC News Hereford & Worcester, 7 Feb 2011.  
<http://www.bbc.co.uk/news/uk-england-hereford-worcester-12388011> accessed 7 Aug 2012

<sup>4</sup> <http://www.promessa.se/?lang=en> accessed 7 July 2012.

<sup>5</sup> <http://www.cryomation.co.uk/whatIsCryomation.html> accessed 2 Aug 2012.

<sup>6</sup> <http://www.naturalwayburial.org.uk/page6.htm> accessed 7 July 2012.

<http://www.naturaldeath.org.uk/index.php?page=resomation-and-cryomation> accessed 7 July 2012.

<sup>7</sup> E.g. <http://perpetuasgarden.org/green-burial/integrating-death-in-green-burial/> (accessed 11 June 2012)