

THE NETHERLANDS IN MAPS

DEATH AND SPACE IN THE NETHERLANDS

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INTRODUCTION

In the next few decades, the population of Europe is almost certain to decline. The 2004 population number of 457 million for the 25 member countries of the European Union is expected to have declined in 2050 in five out of seven population scenarios (Lanzieri 2006). All scenarios point towards an ageing population; the old age dependency ratio, defined as the ratio of people aged 65 years and older to people in the 15 to 65 age group, is expected to approximately double from the present figure of 25 per cent (Lanzieri 2006). This in turn will have an upward impact on mortality rates and numbers throughout the EU. With the exception of France, the ten most populated states of the EU as of 2004 will all experience a negative natural population change, i.e. the total number of deaths in the period 2004-2050 will be higher than the total number of births (Table 1). The situation in the Netherlands in the year 2050 will also contrast sharply with the present situation. For example, the expected number of 225,000 deaths in the year 2050 is 65 per cent higher than the number for the year 2004, *vis-à-vis* a total population increase, including the effects of immigration and emigration, of only four per cent (CBS 2006). As we have argued in the introductory paper to this year's series of *The Netherlands in Maps*, the increased exposure of Dutch society to growing numbers of ageing, dying and deceased people contributes to making death more present in society at large (Van Steen & Pellenbarg 2006).

Table 1. *Demographic key figures (in thousands) for largest European countries, 2004-2050, according to 'Baseline' variant of Eurostat's Trendscenario. Source: Lanzieri (2006).*

Country	Population 01.01.2004 x 1,000 (rank position)	Estimated population 31.12.2050 x 1,000 (rank position)	Population change 2004-2050 x 1,000			
			Total population change (incl. net effects of migration)	Total number of births 2004-2050	Total number of deaths 2004-2050	Natural change 2004-2050
Germany	82,532 (1)	74,201 (1)	- 8,333	29,880	47,191	- 17,311
France	59,901 (2)	65,642 (2)	5,741	32,972	30,053	2,919
United Kingdom	59,652 (3)	64,247 (3)	4,595	31,047	31,390	- 343
Italy	57,888 (4)	52,387 (4)	- 5,501	20,402	31,680	- 11,278
Spain	42,345 (5)	42,573 (5)	- 228	16,856	22,863	- 6,007
Poland	38,191 (6)	33,487 (6)	- 4,704	15,209	20,231	- 5,022
Netherlands	16,258 (7)	17,379 (7)	1,121	8,622	8,980	- 358
Greece	11,041 (8)	10,578 (9)	- 463	4,352	6,559	- 2,207
Portugal	10,475 (9)	9,957 (11)	- 518	4,505	5,832	- 1,326
Belgium	10,396 (10)	10,888 (8)	492	5,022	5,427	- 405
EU-25	456,815	448,174	- 8,641	199,694	248,045	- 48,351

It is against this background that we have presented a number of maps visualising various aspects of the Dutch *geography of death* in this year's volume of TESHG:

- death rates, per municipality (Map 1)
- death causes, per provincial subregion 'COROP' (Map 2)
- employment in the undertaking sector, per municipality (Map 3)
- burial costs, per municipality (Map 4)
- space for the dead, per provincial subregion 'COROP' (Map 5)

In the first issue of this year's issue of *TESHG*, we have already discussed the *death rate* map (Map 1) (Van Steen & Pellenburg 2006). Spatial variations in death rates between areas are largely related to the population composition. Cities and towns with a relatively low share of the age group of 65 years and up are by and large characterised by lower death rates. The presence or absence of homes for the elderly in small and medium-sized municipalities can have a significant influence on the age structure of the local population, and therefore on the death rates. When a correction is made for the age structure by examining the number of people that have died before their 65th birthday compared with the total population aged 64 and younger, a U-shaped area results with higher than average death rates. This area runs from the Northwest to the Southwest, across the South and then through the East up to the Northeastern part of the country.

This text discusses other spatial aspects of death in Dutch society. First, we will take a look at the way death and the dead were dealt with in past cultural and religious settings, focusing on the changing geography of burial sites. We will then examine the number and types of graveyards more closely, followed by a reflection on the poor site conditions for graveyards in large parts of the country. A subsequent section presents a financial perspective, examining and explaining the recent sharp increases in grave costs. The final three sections discuss cremations as an alternative to burials, the employment growth in the undertaking sector and trends that are likely to contribute to the changing

spatial presence of death in Dutch society. We have chosen not to include a discussion of the *death causes* map (Map 2) in this text.

The changing geography of final places

With the exception of remains of megalithic graves concentrated in the present province of Drenthe, evidence of collectively organized cemeteries or cremation sites from more than 1,600 years ago in what is now the Netherlands is sporadic. The megalithic graves, also known as giant's graves, were built in the period 3400 to 2850 BC in the Netherlands, Denmark, Germany and other countries. Using large boulders delivered by an earlier ice-age period, as well as smaller rocks and stones and mud, local tribes erected large vaults used as a place to lay their dead to rest (Van Raak 1995; Kok 2005). Some megalithic graves revealed evidence of ash remains of bodies cremated elsewhere. It was also common to bury deceased persons in small grave mounds or 'tumuli'. Approximately 200 of these mounds have been identified in the province of Drenthe (Van Raak 1995).

Until about 1100 BC, most dead were buried although cremations were not unusual. In the next fifteen hundred years, cremations prevailed. Until the fifth century, burials took place outside Dutch settlements, as was the case in many other earlier cultures. Dead people were perceived as unclean, and the prevailing attitude was to keep the dead separated from the living. At the time of death, the rituals were aimed at exorcizing evil spirits.

From the fifth century onwards, the living and the dead were geographically reunited as burial places for the dead moved back into human settlements. At the same time, the practice of burning the deceased quickly disappeared. These processes were stimulated by the rise and spread of Christianity and its belief in the resurrection of the dead. Soon, every church had its own graveyard. To be buried in the church was a privilege that was only available for the elite, until the practice of graves inside church buildings was officially allowed in the early ninth century (Van Raak 1995). In the centuries that followed, churches started earning money by facilitating inside burials. Locations under or close to the altar were most expensive. The cheapest places were to be found outside the church building, in the church graveyard.

As more and more people could afford to pay expensive burials and funerals, churches became crowded. Many reports from the sixteenth and seventeenth century point at the chaotic condition inside churches. It was not uncommon that, underneath the church floors, up to five layers of bodies were buried as churches ran out of space. Church floors became unstable as a result of the continuous burial processes. Also, especially in times of epidemics, graves were emptied before the remains had been completely skeletonised. In combination with negligent burial practices, many churches were spoiled by stench (Van Raak 1995). Churchyards also experienced a shortage of space, as expansion in the densely built medieval cities was impossible.

Very slowly, influenced by the ideas of the Enlightenment, scientists, doctors and others in Europe began to question the appropriateness of burial practices in churches for reasons of hygiene. This was later on followed by advocates of relocating burial grounds to locations outside the settlements altogether. In the late eighteenth century, the first new 'countryside cemeteries' were

opened. Zuilen, near the city of Utrecht, was the first Dutch town that, in 1787, abolished burials inside churches – a rule that already had been established in Scotland as early as 1566 (Van Raak 1995).

The call for relocating new graves to sites outside the church and even away from the churchyards met a lot of resistance from the churches. According to Kok (2005), the fees associated with funerals often generated over half of the income of churches. Moreover, to be buried in a church was still desired by the population at large. Statistics for the year 1793/1794 reveal that 80 per cent of the dead were buried in churches, with the remaining 20 per cent, mostly the poor, being buried in churchyards outside the church.

Following earlier attempts, a law was passed in 1829 that prohibited burials inside settlements with more than 1,000 residents; these communities were also required to construct new burial places outside the built-up area. Not all cities and towns implemented the new laws. The city of Amsterdam, for example, was largely surrounded by swampy areas, which prohibited the quick and cheap construction of new cemeteries. Also, resistance from church leaders, fearing a high loss of income, was great. Until late 1865, burials still took place within the city of Amsterdam (Van Raak 1995).

In 1869, a national law on 'death delivery' was established, prohibiting burials in churches. An exception was made for the members of the Royal Family, who up to the present can be buried in the New Church in the city of Delft. The 1869 law explicitly stated that deceased persons should be buried within five days after death.

Many of the new cemeteries opened in the decades after 1829 soon turned out to be too small, or were incorporated in the expanding cities. Both of these processes can be related to the population growth. The Dutch population figure grew from 2.1 million at the beginning of the nineteenth century to 5.1 million in the year 1900 (CBS 2001). The number of deaths increased at a slower pace, indicating improving living and health standards, from an average of 70,000 per year in the early decades of the nineteenth century to almost 100,000 in the 1880s and 1890s. In the year 1892, with a population of 4.6 million, over 100,000 people died. With the exception of the final years of each of the two World Wars, the 100,000 death mark was only passed again in 1966 – but then with a population of over 12 million. All in all, the second half of the nineteenth century and the beginning of the twentieth century saw the construction of many new cemeteries throughout the countryside (Kok 2005).

Space for the dead

The exact number of cemeteries in the Netherlands today is unknown. According to a 1996 count (CBS 2006), the Netherlands has 3,012 cemeteries of which two thirds are classified as 'active' cemeteries and one third as 'passive'. Passive cemeteries are only rarely or no longer used as a location to bury deceased persons. Active cemeteries are open in the sense that new graves can be added on demand (Van Dijk & Mennen 2002).

Other sources indicate a larger number of cemeteries. The funeral business website <uitvaart.nl> (Uitvaart NL 2006a) says the number of cemeteries exceeds the 4,000 figure. Van Raak

(1995) suggests a total number of well over 5,000 cemeteries, Van Dijk & Mennen (2002) estimate a total of 4,150 to 4,350 graveyards including 800 to 1,000 graves on private properties.

From national data on land-use classifications, it can be deduced that cemeteries together occupy 3,990 hectares of land, or 0.12 per cent of the total Dutch land surface (CBS 2006). The total number of occupied graves in the Netherlands has recently been estimated at 2 million (Van Dijk & Mennen 2002). Most of these graves contain 2 or 3 bodies, either family members in a family grave or separate individuals in so-called general graves where a maximum of three coffins are placed above one another separated by at least 0.3 metres of sand from one another. If we assume that the remains of roughly 4 million people are to be found in their graves, the *dead population density* for the Netherlands can be estimated to be 100,000 bodies per km² of cemetery land.

Graveyards are, historically as well as today, distinguished in municipal (or 'general') graveyards and 'special' graveyards. Approximately 1,800 cemeteries are municipal graveyards; together, they have an estimated share of 75 to 80 per cent of all graves (Van Dijk & Mennen 2002). The special graveyards are graveyards established or managed by a religious organisation or a non-profit organisation. The religious cemeteries include approximately 900 Roman Catholic cemeteries, 440 Dutch Reformed cemeteries and 200 Jewish graveyards. Other special graveyards include eight graveyards operated by private firms, 30 military cemeteries and a few hundred private or family graveyards.

The spatial distribution of graveyards across the country reflects both the spatial variations in settlement patterns as well as population densities. Regions with many small and medium-sized settlements will typically have a larger number of on average smaller cemeteries; regions with larger cities have relatively less cemeteries, albeit of a larger scale. The Northern province of Friesland, for example, with a total population figure of almost 650,000, is characterised by a settlement pattern with many small villages and towns. Only 10 locations have a population of over 10,000 – headed by the capital city of Leeuwarden with just over 90,000 residents. Almost all towns and villages have their own graveyards – often one or two municipal graveyards, as well as a few graveyards associated with a specific church or religion. An inventory of graveyards in the three northern provinces of Friesland, Groningen and Drenthe indicates that Friesland has no less than 463 graveyards, compared to a combined total of 388 for Groningen and Drenthe (with a combined total population of 1,060,000) (Graftombe 2006).

The amount of 'dead space', in the sense of the amount of land designated and available for burying deceased persons, is also related to the demand for space stemming from other functions – housing, businesses, transport, recreation and related land uses. In regions with a relative shortage of space, as is the case in the densely populated and partially congested area of the Randstad, cemeteries have to compete for expensive space. In these crowded areas, many cemeteries cannot not expand the size of their site and now often face the threat of running out of space. Until 1991, personal or family graves could, theoretically, be cleaned after 10 years unless the surviving next of kin made use of their right to extend the grave rental period. The 1991 adjustment of the 'death delivery' law extended the 'grave rest' period for personal graves to 20 years. In general terms, many graveyards do not easily clean up graves because of the labour-intensive nature of both administrative

procedures in tracking down surviving next of kin, especially in the case of so-called general graves where up to three unrelated persons are buried on top of one another, as well as the sometimes troublesome process of digging up human remains that are not yet fully skeletonised. An important issue is also that many graveyard organisations or local communities are reluctant to clean graves for reasons of respect for the dead.

The fifth and final map in this volume's series of *The Netherlands in Maps* included in this issue of *TESG* contains a map visualising the 'grave pressure'. The map relates the number of deceased persons in 2005 per COROP region (a statistical subdivision of provinces, based on the nodal region concept) to the total amount of cemetery land, occupied or not yet occupied, in that region. For the country as a whole, one hectare of cemetery land was available for every 34 deaths in 2005. In the Northern provinces of Groningen and Drenthe, as well as the Southwestern province of Zeeland, the number of deaths per available hectare of cemetery land was considerably less than the national average, indicating a larger amount of cemetery land available. On the other hand, large parts of the Randstad provinces of North-Holland and South-Holland, including the cities of Amsterdam, Rotterdam and The Hague, as well as the provinces of Utrecht, North-Brabant and the larger part of the province of Limburg in the South, demonstrate relatively smaller amounts of cemetery land available for the dead.

As an alternative to the fifth map of this year's series of *The Netherlands in Maps*, Table 2 includes the population density as well as the amount of cemetery land (in square metres) per resident for each of the Dutch provinces. For every resident of the province of Groningen, close to 6 m² of cemetery land (occupied or not yet occupied) is available, against figures lower than 2 m² per resident in the provinces of South-Holland, North-Brabant and North-Holland. The rank numbers for the population density and the available cemetery land are highly correlated: low amounts of available cemetery land are to be found in provinces with high population densities. The only anomaly appears to be the position of the province of Flevoland. However, the low figure for Flevoland, just over 1 m² per resident, is a reflection of the fact that this is a young province: it was reclaimed between the late 1940s and the mid 1960s from the former South Sea (cf. Van Steen & Pellenburg 2004). The young population structure as well as the fact that many of the 'new' residents kept their social ties with their regions and cities of origin, especially the Amsterdam region, meant that in many cases people chose to be buried in the 'old' land. This is not to suggest that cemeteries were not included in the land-use plans for the new towns and cities created in the 'new' land of Flevoland. The city of Almere, for example, was established in 1974. Already in 1977 its first cemetery was opened. In the eyes of the city government, a new city could only be a true community if it manages to retain its dead (Van Raak 1985). On the other hand, the 1869 law still required each municipality of over 1,000 residents to have its own cemetery. Because of its location four to six metres below sea level, the city of Almere is characterised by relative high groundwater levels. The 1991 law on 'death delivery' specifies that graves must be positioned at least 30 centimetres above the average groundwater levels. The design of Almere's cemetery is reflection of its physical geography: graves are to be found in a rolling, heightened landscape – very much a reflection of the grave mounds of thousands of years before (Van Raak 1985).

Table 2. *Population densities and amount of cemetery land available per resident, 2005, per province. Source: CBS (2006).*

Province	Population density: number of residents per square kilometre (2005)	Rank number population density (high-low)	Cemetery space: amount of square metres of cemetery land per resident	Rank number cemetery space (low-high)
South Holland	1,227	1	1.6	2
North Holland	973	2	1.9	4
Utrecht	845	3	2.0	5
Limburg	528	4	2.7	6
North Brabant	490	5	1.7	3
Gelderland	396	6	3.1	8
Overijssel	333	7	3.0	7
Flevoland	258	8	1.2	1
Groningen	246	9	5.7	12
Zeeland	213	10	4.7	10
Friesland	192	11	3.8	9
Drenthe	183	12	4.7	11
The Netherlands	483		2.4	

Suitable burial sites

Historically, the Dutch have encountered problems in finding suitable locations for cemeteries. As was noted above, the city of Amsterdam was successful in putting off the 1829 requirement of establishing cemeteries outside the built-up areas until 1866, because of the poor soil conditions in the immediate surroundings of the city. In general terms, Dutch settlements historically have been established on the best possible, often elevated and drier, locations in the landscape. The laws of the nineteenth century thus directed cemeteries away to second-best locations.

The largest problem was and is the ground water table. High ground water tables will slow down the skeletonisation process of bodies. According to Van Dijk & Mennen (2002), only a few regions in the Netherlands have an average ground water table of lower than 0.8 metres. This is the level that is specified by the 1991 law on 'death delivery'. The few locations where this condition is met are to be found in areas above sea and river levels in the Netherlands, for example the Veluwe region, Southern Limburg, smaller patches in North-Brabant, Overijssel, Utrecht and Drenthe, as well as the strip of dunes along the North Sea coast. Interestingly enough, also the most recently reclaimed part of Flevoland, including the city of Almere located at 4 to 6 metres below sea level, meets the lower than 0.8 metres ground water level requirement. It appears that the water control works in this area are of a high quality (cf. Van Steen & Pellenburg 2004). In the majority of the Netherlands, however, additional measures have been necessary to ensure that the ground water levels meet the legal requirements. These measures include the heightening of cemeteries and drainage. Another solution is to restrict the number of three coffins on top of one another in each grave to two or even one in order to by-pass higher ground water tables. A direct consequence of the latter is, of course, that cemeteries will need to expand horizontally.

Another element of physical geography that influences the suitability of locations as cemeteries is the type of soil (Van Dijk & Mennen 2002). The provinces of Drenthe, Overijssel and Gelderland in the East, and Limburg and North-Brabant in the South, mainly consist of sand, and as such are very suitable for burying purposes as oxygen can penetrate easier, thus aiding to the

decomposition process. However, in the densely populated Randstad provinces of North-Holland, South-Holland and Utrecht, as well as Zeeland, Flevoland and larger parts of Friesland and Groningen, the sub-surface consists of clay or peat, and the lower levels of oxygen in these soils are not beneficial for the degradation process. In such areas, the import of sand as a replacement or tool to heighten the level of graves is necessary for cemetery locations to improve conditions. In areas where soil conditions are less favourable for the degradation of human remains, graveyards often extend the minimum required 'grave rest' periods in order to make sure full degradation takes places.

Paying for dead places

So, from a macro perspective, Dutch society has, in a majority of places and regions, faced the necessity to implement costly adjustments in order to make sites suitable as burial places. The maintenance of graveyards is expensive too. Many cemeteries in the Netherlands are faced with higher levels of expenditures than revenues. As explained above, relatively few graves are cleaned even when the legal period of 'grave rest' or the extension of the 'grave right' period by the surviving next of kin has stopped. Consequently, in the past as well as the present, in many communities, there was a 'natural' process to expand existing cemeteries or, if that was not possible, to open up new cemeteries in order to accommodate the future generation. Also, the management of the graveyard took over the maintenance of graves even when families had stopped paying their maintenance fees.

Not surprisingly, then, many cemeteries are faced with budget problems. An example is the municipality of Hoogeveen, which operates nine cemeteries (Gemeente Hoogeveen 2006a). The total revenue in 2006 for these cemeteries is estimated to be € 0.5 million, completely generated by 'grave rights' and burial fees. Grave rights entitle the surviving next of kin ownership and control over the grave for a period of 10 years in the case of general graves and 20 years in the case of personal or family graves; the rental periods of the latter can be extended. The fee for the grave rights can be paid at once in advance, or annually. Expenditures for these nine graveyards have been calculated to total € 1.1 million. As a result, the deficit in 2006 is € 0.6 million, even more than the total amount of income. These figures exclude the € 5.8 million expenditure involved in the construction of a new cemetery and capacity expansions of two other cemeteries (Gemeente Hoogeveen 2006b).

A solution for the municipality of Hoogeveen, and indeed for many other Dutch municipalities, would seem to be an adjustment of the fees for burial and the 'grave rights' (or burial lease) to levels that meet the costs of these services. As we explained in the introductory text to this year's series of maps (Van Steen & Pellenbarg 2006), municipalities are not allowed to make a profit on burials and graves. The fourth map of this year's series of *The Netherlands in Maps* demonstrates the existence of large variations in grave costs between Dutch municipalities. The map is based on the Monuta grave cost research (Monuta 2006), which aims to present every year, for each municipality, the fee for a regular, standard personal or family grave. Such a grave has a 'grave rest' period of 20 years. The Monuta study typically uses the grave costs for the largest or mostly used cemetery within each municipality. The average grave cost early 2006 was € 1742. Approximately one third of this fee

reflects the actual burial of a deceased person, and two thirds reflect the fee associated with the 'grave rights' or the burial lease for a period of typically 20 years.

The Monuta grave cost research has met criticism, mainly because even within municipalities, a large range of grave types as well as many grave and burial prices exist. Variations are related to the day of the burial (Saturdays are more expensive), the time of the day (evenings are more expensive), the age and type of desired graveyard section (children or children's burial fields are often less expensive), the length of the 'grave rest' period (20, 25, 30 or more years for personal or family graves), the type of grave (a family or personal grave, versus a general grave, which might or not be the grave where one or two other, non-related individuals are buried). Larger municipalities, consisting of once independent smaller municipalities, are often still characterised by price variations that have been inherited from the past.

Despite these problems in comparing grave costs between municipalities, the Monuta grave cost research is the only reliable and available source to make comparisons. The year to year comparison of grave costs for one municipality, assuming prices for identical graves, reveals that in many cases grave costs sometimes increase sharply from one year to the next year. In many cases, these strong relative price increases seem justifiable because the prices in the past were, as in the case of Hoogeveen presented above, not even a close reflection of the actual costs made by the municipal managers of the graveyards. Nevertheless, the annual publication of grave costs causes much local discussion and turmoil, especially when comparisons are made with the figures for a year earlier. Compared to early 2005, three out of every four municipalities increased their grave costs. The average price increase, including the municipalities that did not change or even lowered their grave costs, was 8.9 per cent (Monuta 2006).

The *grave costs 2005* map, published in issue 4 of this volume of *Tijdschrift voor Economische en Sociale Geografie*, shows that grave costs are significantly higher than the national average in large areas of the Randstad and a broad corridor running from the Randstad to the East and Northeast. Nevertheless, within every province municipalities in the lowest grave cost category (less than € 1,250) as well as municipalities in the highest grave cost category (more than € 2,250) can be found. Regions where municipalities with the lowest grave costs are in the majority include the Northern provinces of Groningen and Friesland, and the Southern provinces of North-Brabant and Limburg. Compared to early 2005, the difference between the lowest and the highest grave costs has increased:

- in 2005: € 197 in the Northeastern municipality of Bellingwedde, and € 5,029 in the Western municipality of Moordrecht;
- in 2006: € 197 in Bellingwedde, and € 5,818 in the Western municipality of Naarden. On its website, Naarden justifies these high grave costs by explaining that already in 2003, the city council had decided to, step by step, adjust the fees to levels in line with the actual costs. Grave costs in 2005 in Naarden totaled to € 3,135 – resulting in a 86 per cent increase in 2006. The local cemetery is relatively large, and still follows an original 1937 design as a park landscape (Naarden 2006).

Interestingly, the height of the grave costs shows almost no relation with the ground water table levels or the soil types. Grave costs are not relatively low in the few areas with a suitable ground water table, and many municipalities with suitable types of soil have higher than average grave costs. The only positive exception is the Southeastern part of the country, where many municipalities with a sand underground have lower than average grave costs.

Cremation as an alternative

The large variations in grave costs between Dutch cities and towns might cause a variation of Charles Tiebout's well-known principle of 'voting with one's feet'. According to Tiebout (1956), a consumer moves to the community that best satisfies his set of preferences for services provided for by local governments, including the tax and expenditure structures. Would residents of Dutch cities and towns with well above average grave costs, like the town of Naarden, prefer to be buried in a neighbouring community with lower or much lower grave costs? Dutch law does not prescribe that residents should be buried in their final place of residence, although it is the impression of the present authors that this is usually indeed the case. Unfortunately, no statistical data are available to support or reject the hypothesis that most people are buried in the same municipality where they last lived. Nevertheless, the term 'grave tourism' was recently added to the 'encyclopedia' section of the leading funeral business and information website <uitvaart.nl> (Uitvaart NL 2006b); it refers to the search for a municipality with a burial site that is cheaper compared to the present place of residence of a person or that person's next of kin.

Migration of dead bodies to other municipalities does occur in the case of cremations, which in recent years are more and more seen as a cheap alternative to the sharp increase of prices for burials. The price bandwidth of cremations is € 725 to € 1,000 – much narrower than the variation in burial prices. The exact cremation fee depends largely on the owner of the crematorium (Uitvaart NL 2005). In 2005, the Netherlands comprised 63 crematoriums with over 110 ovens.

The diagram accompanying the map in this issue of TESHG shows that the share of cremations has slowly increased over the past 50 years. In 2003, the amount of cremations exceeded the amount of burials for the first time (CBS 2004). By comparison, England had reached this turning point as early as 1967 (Jupp 1993), whereas as yet only 31 per cent of the funerals in the United States involve cremation (Pharos 2002). The British journal *Pharos International* (Pharos 2002) has collected data on the percentages of cremations for a number of countries in 2001. In Europe, high figures are to be found in the Czech Republic (76%), Switzerland (76%), Denmark (71%), Great Britain (71%) and Sweden (70%); compared with low figures for France (19%), Spain (12%), Italy (7%) and Ireland (5%). These figures demonstrate that a society's preference for burials or cremations is not only related to financial motives, but also is determined by other social-cultural factors.

The first cremation in the first built crematorium in The Netherlands was on April 1, 1914. Authorities prosecuted those responsible for allowing and assisting in this cremation, simply because the 1869 law on 'death delivery' prescribed that deceased persons should be *buried* within five days (Van Raak 1995). Nevertheless, more cremations followed and were tolerated by the authorities, despite

being considered 'illegal'. Society's attitude towards cremations changed in the 1960s. For example, in 1964, the Roman-Catholic church no longer disapproved cremations. In 1968, funerals and cremations were finally completely made equal under law.

By law, the ash remains of a cremated person must be kept at the crematorium for a period of 30 days. After this term, in 80 per cent of the cases, the ashes are dispersed; the remains of 20 per cent of the cremated persons are put into urns. Most urns are then buried in an urn field at a cemetery. Following the possibilities created by the renewed law on 'death delivery' of 1991, now more and more often urns are taken home by the surviving next of kin (Van Raak 1995).

Death as business

With the amount of deaths expected to grow from 136,000 in 2004 to 225,000 in the year 2050, the undertaker sector will become a booming sector in terms of employment in the decades to come. But already in recent years, employment has doubled from 3,000 in 1995 to 6,000 jobs in 2004. This employment growth is also evident from relative figures. In 1995, one out of every 1,958 jobs in the Netherlands was a job in the undertaking sector. One decade later, in 2004, one out of every 1,215 employed persons in the Netherlands worked in the undertaking business (LISA 2006). This growth can not be attributed to the increase in the number of deaths between 1995 (135,675) and 2004 (136,553) (CBS 2006). The job growth clearly reflects the fact that Dutch society as a whole is in a process of spending more care, attention, time and – therefore – money on the burial process of its population. The diagram included in the third map of this year's series of maps shows that each employee in the undertaking sector on average escorted close to 50 deceased persons per year in 1995. In 2004, this figure had dropped to 25. Map 3 reveals that the location quotient of employment in the undertaker sector is high in many rural municipalities in the Eastern half of the Netherlands. This might well be a sign that in less densely populated areas the work of an undertaker can be organised less efficiently compared to urban areas. Or, alternatively, that undertakers in rural areas spend more time per deceased person.

Private and commercial undertaker businesses are a relatively recent phenomenon in the Netherlands. Until the late nineteenth century, churches and neighbours were the main actors involved in burying the dead. The role of churches has already been touched upon earlier in this text. Neighbours were required to help whenever somebody passed away; their tasks included the diagnosis of the actual death, informing other neighbours and relatives and carrying the coffin on the day of the funeral. In 1771 neighbours in the city of Groningen refused to carry out these duties when the wife of an executioner died. Consequently, the local authorities prosecuted these neighbours for not fulfilling their 'neighbourly duties' (Kok 2005).

Very gradually, the activities between the moment of dying and the moment of the burial of the deceased person were farmed out to third parties. As the road infrastructure improved, carriages and later on cars were introduced and transportation companies developed. Following the change in legislation in 1869, the distance to the newly established cemeteries outside settlements increased. Both developments released neighbours from the duty to carry coffins to the cemeteries. In the

twentieth century, more and more elderly people lived independently or in homes for the elderly rather than in the households of one of their children, and the care of sick, dying and dead people therefore was relocated to other places and, at least partially if not largely, to other responsible persons. The widespread and rapid development of health care in itself implied that a growing part of the population was under the control and care of medical institutions in the final phases of their increased life spans. Van Raak (1995) observed that in Dutch society in the 1950s, 1960s and 1970s, fewer people died at home – hospitals, nursing homes and homes for the elderly took over the function as primary 'place of death'. Noys (2005) sees the hospital room as the major space of death in modern culture, "where we face death alone surrounded by medical technology".

Death in society: space and cyberspace

Many authors have noted that death in western societies, including the Netherlands, became less and less visible in the 1960s and 1970s. Processes of individualisation and secularisation caused many rituals that previously surrounded death to disappear. The relocation of places of death from homes and households to hospitals, nursing homes and the like meant that many people were no longer directly confronted with death. Since the 1980s, however, western societies are experiencing gradual changes in attitudes towards death. In The Netherlands, the following trends can be noted (cf. Enklaar 1995; Kok 2005; Van Raak 1995):

- A growing number of publications on cemeteries, as well as an increase in the number of exhibitions on death, processes of dying and processes of mourning; in 2007, the first Dutch funeral museum will open its doors, located on a cemetery in Amsterdam;
- A growing concern in cemeteries as cultural heritage; in 1985, the national government explicitly instructed all local governments to maintain necessary levels of maintenance of cemeteries and to make an inventory of worthwhile tombstones and graves;
- A growing number of roadside memorials. Although roadside memorials, marking the location where somebody died in a traffic accident, are not completely new in Dutch society, Kok (2005) points out the sharp increase of roadside memorials since the year 2000.
- A growing concern for the long-term impact of funerals and cremations on the environment, including the contamination of ground water tables caused by the release of metals as well as bacteria;
- And, finally, an on-going process of a more personal and individual signature to cremations or funerals and gravestones – including the wish to be buried on one's own piece of land rather than on 'public' grounds.

With the number of mortalities soon to increase towards the 200,000 figure per year, and in the light of the present attempts of many public authorities to charge real cost prices for funerals and graveyard maintenance, and the consequently recent sharp rise in grave costs, it can be expected that Dutch society will experience an increase in both the absolute number as well as the relative share of cremations compared to burials in the years and decades to come. In 2006, in only 80 out of the 458

Dutch municipalities the costs for a standard grave are lower than the highest price charged for a standard cremation. In combination with the restricted capacity of many cemeteries and the limited possibilities to expand existing cemeteries or to lay out new cemeteries unless large investments are made, it seems that many local governments might need to discourage burials – with price as an important and powerful instrument.

This is not to suggest that cemeteries or graves will or should in time disappear from the Dutch landscape. Graves fulfill many functions in society, not least as a place of remembrance or a place of mourning. But in recent years, alternatives have developed. On a very small scale, the trend of burials on one's own ground has started to develop. Also, more and more people choose to take the remains of cremated family members or loved ones home rather than have these remains dispersed. Moreover, urns can be buried on special urn fields or in 'urn walls' on cemeteries – requiring much less space than the graves of burials. A few innovations have as yet not been introduced in The Netherlands (Mijn Laatste Wil 2006):

- Lyofilisation: a technique where a body is frozen and then, by means of vibrations, falls apart into an organic substance. These remains can then be buried and will decompose within a period of 6 to 12 months.
- Hydrolysatation, as developed by the WR2 company in the United States. Basically, this technique involves a decomposition of the chemical compounds. The process in itself is cheaper and less demanding for the environment than a cremation.
- Above-ground burials compared to underground burials. Although some Southern European countries are familiar with burials in above-ground structures, the practice of aboveground graves remains very unusual in the Netherlands. A Dutch firm has recently introduced the 'palenque' technique, presented as a grave temple.

The rise of the Internet has led to an alternative for graves and cemeteries as places of remembrance: virtual remembrance sites (Benschop 2005). The term 'virtual graves' has been introduced for the sites devoted to persons or groups of persons, where next of kin, friends or classmates upload texts, poems and photos to honor or remember a deceased person. The extremely popular <MySpace.Com> – a social network service, presenting personal profiles, friends lists, blogs, music and videos of over 100 million persons – has already led to the installment of <MyDeathSpace.Com>: a website where deceased MySpace.Com members are relocated to. The MyDeathSpace.Com site thus offers a detailed insight in death causes and contexts of predominantly teenagers and young adults from the United States, where the MySpace.Com community originates and is very widespread.

The introduction and further distribution of remembrance sites on the world wide web is capable of changing the geography of the dead into a 'new geography of the dead': cyberspace as a place where people go to in order to remember, relive and mourn. Would that lower the demand for gravesites and funerals in the real world? Only time will tell.

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