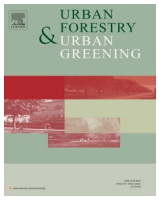
Urban Forestry & Urban Greening 76 (2022) 127729

Contents lists available at ScienceDirect

Urban Forestry & Urban Greening

journal homepage: www.elsevier.com/locate/ufug



Cemeteries in transformation – A Swiss community conflict study

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ARTICLE INFO

Keywords:
Alternative land use
Burial space
Municipal planning
Natural experiment
Neighborhood
Urban green space

ABSTRACT

For the first time, this study presents a natural experiment describing and explaining selected stakeholders' attitudes toward the transformation of cemeteries into urban green spaces. In 2020, a real-life community conflict unfolded in Bern, the capital of Switzerland, over plans to close the smallest of its three municipal cemeteries by 2023. This study analyzes a representative sample (N = 519) of the city's adult population and that of the adjacent town, Ostermundigen, capturing the views of residents of the conflict district and contrasting them with those of people living outside the district. It also compares attitudes of cemetery visitors and non-visitors. Survey interviews were conducted via telephone and through an online panel. The study focuses on conflicts triggered by alternative land-use plans, highlighting the need to include groups that are both familiar and unfamiliar with cemeteries. Interestingly, the latter group proved to be more open to change. The local meaning of cemeteries and municipal green urban-space policies are crucial context parameters, as demonstrated by the strong opposition to cemetery transformation in affected areas. The underlying beliefs of opponents and proponents are explored qualitatively and found to be complex and multidimensional. Individual attitude predictors include age and personal emotional attributes. Finally, factor analysis is used to develop a typology of users. The four emerging user types are linked to different perceptions of "the nature of cemeteries" and attitudes toward innovative plans (e.g., whether to create burial spaces for pets or a restaurant within the cemetery grounds, both of which received significant support). The findings inform policy decisions related to urban green-space management while balancing the interests of various groups. User perspectives should be reconciled by focusing on "dialogues of values" and participatory approaches, which complement information-centered municipal policies.

1. Introduction

1.1. Cemeteries, social change, and urban green space

Anthropologists, sociologists, archaeologists, historians, and cultural geographers have long recognized the importance of places of death and dying, as mirrors of our social order and value systems (for an overview, see Woodthorpe, 2011; Nordh and Swensen, 2018). As Walter (2012) pointed out in his comparative analysis of the management of death and dying in modern urban societies, the "death practices of all modern societies are profoundly shaped by common social, economic and demographic structures, but how each society responds to these common structures depends considerably on historic institutional arrangements and culture" (Walter, 2012: 139). Such structures include regulating the disposal of the body. The past 20 years have seen considerable growth in research on ways to commemorate the dead in public spaces (e.g., on streets or the Internet), and at burial sites and cemeteries. Increasing urbanization and urban densification have acted as catalysts, influencing shifting attitudes toward death and burial cultures. Thus, recent multidisciplinary research has adopted an expanded, holistic approach, which seeks to understand places of death contextually and as systemically embedded (Nash, 2018). This research trend is exemplified in the modified titles of special issues of academic journals; in 2003, the journal *Mortality* titled its special issue simply "Cemeteries" (Vol. 8). In 2018, the journal *Urban Forestry & Urban Greening* published a special issue (Vol. 33), entitled "The role of cemeteries as green urban spaces."

In recent years, landscape architects and planners have inaugurated a debate on cemetery design as a special case in the study of urban green spaces. Długozima and Kosiacka-Beck (2020) analyzed 78 selected cemeteries in Europe and used their findings to develop a catalog of environment-friendly design criteria, including planting, spatial design, and ecological corridors. They also pointed out that both ecological

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https://doi.org/10.1016/j.ufug.2022.127729
Received 26 April 2022; Received in revised form 6 August 2022; Accepted 7 September 2022
Available online 12 September 2022

designers and landscape architects should consider the social and multidimensional nature of every site or space under consideration (Długozima and Kosiacka-Beck, 2020: 15).

1.2. Overdue shift to the user perspective

According to above discussion, the focus of urban green-space design has shifted onto the user perspective. What impact do structural design features of a natural space have on visitors? Generally speaking, urban green spaces have a positive effect on people's social and personal wellbeing, creating social cohesion and promoting good mental health (for an overview, see Beccaria and Kallay, 2021). Specifically, studies that compare parks and cemeteries often show how green-space characteristics affect their perceived restorative value (Lai et al., 2020; Pasini et al., 2014). Quinton and Duinker (2019) conclude, in their review of the Canadian context, that, "Greater inclusion of cemeteries in the green-space narrative may result in increased use and better access to places that provide residents with opportunities for recreation, restoration, and other beneficial ecosystem services" (Quinton and Duinker, 2019: 8). This perspective is complemented by analyses of the relationship between structural features (e.g., types of planting, benches, and lighting) and user preferences and practices (Massoni et al., 2018). Individuals' religious values and attitudes influence their burial-site preferences and opinions about ways of using land appropriately to accommodate the deceased. To a certain extent, such attitudes act as intervening variables, as seen in Doi 's (2021) exemplary analysis of China, where Feng Shui ("wind and water") traditions place the relationship between people and their environments in a central position (Doi et al. 2021). Thus, burial sites must allow for optimal spatial orientation. For this reason, mountain cemeteries are preferred in China, with public cemeteries in Beijing using mountain scenes to market themselves.

Another field of study similarly addresses the user's perspective without adopting a one-sided focus on "social ecology"; it does not rely on general assumptions about landscape design or refer to "green infrastructure." Instead, this field explores from a sociological perspective, the image and everyday use of cemeteries, encompassing observational studies of cemeteries in Oslo (Evensen et al., 2017), analyses of cemetery jogging in Malmö (Grabalov, 2018), surveys of Kuala Lumpur's residents to determine their views on the acceptable use of cemeteries (Goh and Ching, 2020), and an assessment of urban cemeteries in Beirut (Al-Akl et al., 2018).

1.3. Cemetery landscapes and social conflict

In all of these studies, *competing value systems* are prominent in the discussions of alternative uses for cemeteries and their potential conversion into parks. There is heightened tension between those who favor recreational uses and others who prioritize preserving "the peace of the dead." These attitudes are influenced by cultural conceptions of death, including circular patterns of multiple deaths, continuous interactions between the dead and living, and death as the final end (Gire, 2014).

The conflicts caused by cemetery multifunctionality, and their resolution can only be understood and addressed from a meta-level systems perspective. Woodthorpe (2011) conceptualizes cemeteries as three interconnected "analytical landscapes:" emotional, commercial, and community landscapes. Ultimately, negotiations must be carried out sensitively, to achieve reconciliation. After all, "[.] the cemetery is no longer a meandering landscape [.] it is a political, contested and dynamic space accessed by a wide range of people, who carry with them varying expectations and demands" (Woodthorpe, 2011: 272). In a rare application of the comparative-systems approach, Rugg (2020) has extended this perspective to include "test criteria" for cemetery systems from a social-justice perspective. These criteria include cemetery planning, access to appropriate burial options, the democratic management of cemeteries, equal financial access to burials, opening up cemeteries to different faiths and cultures, and environmental impact and sustainability issues. Although the user perspective is not considered empirically, it is plausible to assume that systems that fail to meet these requirements will be characterized by conflicts and tensions.

1.4. Modes of conflict resolution

The existing literature contains standard and unusual approaches to dealing with such conflicts, and some proposals. For example, the DeathLAB working group at Columbia University presented design ideas for resolving the conflict between environmental and sustainability requirements and the current burial modalities in a paper, "The New Civic-Sacred: Designing for Life and Death in the Modern Metropolis" (Rothstein, 2018). The working group sought to integrate the commemoration of the dead into everyday urban life (in this case, New York) while reducing bottlenecks in the logistical capacity of cemeteries. The cremation trend uses non-renewable fuels and produces emissions, causing environmental damage, while eliminating the organic potential of the body.

Although such ideas correctly anticipate processes of increased secularization and provide innovative solutions to some of the conflicts inherent in the cemetery system, they do not represent the full range of socio-cultural conditions and values. As the user perspective is absent, user-oriented design requirements are not fulfilled. Thus, the practical relevance of such approaches remains an open question.

Faced with competing user groups in Norway, Evensen et al. (2017) drew on their own experience to suggest practical solutions to design challenges. Their recommendations included posting prohibition signs and providing information on the rules; they further supported a balanced zoning policy and a process of weighing safety needs against the negative consequences of light pollution (Evensen et al., 2017: 82). According to Swensen et al. (2016: 51), cemetery administrations should be flexible and tolerant when dealing with potential neighborhood social problems. A high-level consensus can be attained if cemetery users "make the cemetery their cemetery," and care for it accordingly (Swensen et al., 2016). Based on his argument that Columbian deathscapes represent political statements of anger and despair, Klaufus (2018) has pointed out, from a cross-cultural perspective, that "cemetery policies should recognize the existing place-making activities in all of their positive and negative effects, to create socially more inclusive spaces" (Klaufus, 2018: 22).

1.5. Impact of cemetery management

Studies that focus on the institutional embedding of cemetery management and the provider's perspectives have explored the stability of cemetery systems and their resistance to change. In concrete terms, local cemetery administrators constitute relevant actors. A Danish study of 28 cemetery administrations found that they were marginalized by local government and shared a "local self-image" that differentiated them from the green-space management they officially belonged to. Cemeteries are static in nature. Changes, which are best made on an incremental basis, are embedded in local initiatives (Kjoller, 2012: 347). A comparative study of a similar design in Scandinavia has also revealed gaps and ambivalences: cemeteries were included in conceptual green-space planning but judged using cultural-historical and other qualitative references (Nordh and Evensen, 2018). The situation is similar in Poland, where cemetery ordinances are inconsistent in defining cemeteries as either "building complexes" or green spaces designed solely by architects (Długozima and Kosiacka-Beck, 2020: 11). At the operational level, conflicting views of the multifunctionality and alternative uses of cemeteries are mirrored in the views of cemetery managers and administrators, who divide along generational lines (Rae, 2021). These studies and cases address an important aspect of cemetery systems, with relevance beyond the regional level. In many countries, including Switzerland, cemetery management is oriented toward the

local community. This reinforces the need for cemetery managers to include the social context when promoting planning projects or modernization processes. Engaging with the local community can help counter public resistance.

1.6. Toward a holistic approach and research agenda

The previous overview highlights numerous gaps in the literature. Although there is wide recognition of conflicting user perspectives on land use for the deceased and the multifunctionality of urban cemeteries, few empirical studies have addressed contested cemeteries as "emotional, commercial and community landscapes" (Woodthorpe, 2011); those that exist often suffer from various methodological drawbacks. Small-scale research and opportunity samples do not provide a reliable empirical basis for addressing these issues. Users and non-users are not differentiated as stakeholders with different agendas, and their perceptions are measured using hypothetical statements. Furthermore, very few studies have adopted a holistic approach that includes social context and policy/intervention parameters.

The present study investigates perceptions of urban cemeteries within a local context, exploring attitudes toward alternative uses. The research design was conceptualized as a natural experiment, which captures a community's response to cemetery-closure plans in the city of Bern. It thus explores cemetery-related attitudes and concepts in an actual real-life situation. In addition, this case study is based on a representative sample, which includes both visitors and non-visitors to the city's three cemeteries. The specific research questions are formulated as follows: 1) What factors predict attitudes toward alternative land use in relation to land use conflicts? 2) What concepts qualitatively underpin these attitudes? 3) How are perspectives on "the nature of cemeteries and openness to change" interrelated? 4) What user "types" emerge during cemetery-landscape negotiations?

2. Methods

2.1. The Bern cemetery sites—focus on Bümpliz Cemetery

The period of data collection and study preparation coincided with a public debate about a controversial Bern City plan to transform the Bümpliz cemetery into a park and stop authorizing new burials from 2023 onward.[1] COVID-related budget problems in spring 2021 led to political initiatives to save money in various sectors. Since the Bümpliz cemetery was due to receive major investments, the city government considered a proposal to transform the cemetery into a green space. This controversy involved Bern's "Transformation District 6," and culminated in a petition protesting the cemetery's closure. The petition, which collected 5700 signatures, was organized by the Swiss People's Party (SVP) (20Minuten. ch). Faced with widespread opposition, the city council ultimately abandoned its plans.

The present study focuses on the Bümpliz cemetery, established in 1885 as the village cemetery. It was enlarged several times; in the early 1990 s, a need for space was finally met through a large-scale extension, which was expected to suffice for several years. With an area of roughly 6 ha, around 250 burials per year, and a total of 1700 occupied graves, Bümpliz is Bern's smallest cemetery. One special feature is the "themed burial grounds for urns" ("Urnenthemengrabfelder"). Data on perceptions of Bern's other two cemeteries (Bremgarten Cemetery—A Cemetery of the World's Religions and Schosshalde Cemetery—A Forest Cemetery for Two Communities) have been included to cover covariates and background variables, such as overall familiarity with the city cemeteries and images and perceptions of what a cemetery is and should be. These variables influence public attitudes toward transformation plans in other city districts.

A process of "emptying" can be observed in all of Bern's cemeteries (and Swiss cemeteries in general). Early burial sites, instead of being used for more interments, are converted into green spaces and surfaces for alternative use. This dynamic is fueled by cultural and economic factors and communal regulations. Nowadays, urn burials are increasingly preferred to traditional interments, requiring much less space (when buried in a small patch of ground) or no space at all (when placed on urn walls—known as *Kolumbarium*). In 2020, only 140 of the 5470 burials in Bern were interments; by contrast, in 1970, internments accounted for a quarter of all burials (City of Bern, 2020). Nowadays, community graves that do not require care have grown in popularity and a minority of citizens now opt for costly familial or rented grave sites. When a grave-site concession begins to run out (after 20 or 40 years), the surface of the grave is cleared, with the remains staying in the ground. Finally, post-cremation alternative burials outside cemeteries (e.g., sea and tree burials) have become more frequent. Consequently, cemeteries are gradually transforming into park-like areas, triggering debates about ways to use them as public spaces, rather than mourning sites.

2.2. Data collection

A representative sample of Bern's adult population (N = 142,762) and that of the adjacent town of Ostermundigen (population size N = 18,044; sample size N = 519) was interviewed between July 7 and August 19, 2021 (Table 1). Ostermundigen was included because it co-owns the Schosshalde Cemetery and is thus affected by Bern City planning, despite being excluded from political decision-making processes. Our selection was based on age-group, sex, and city-district quotas. The "conflict district," (District 6) where the cemetery is located, was oversampled to allow for statistical comparisons with other districts that were not affected directly by plans to transform the cemetery into a park. A total of 457 computer-assisted telephone interviews (CATI) were carried out, each lasting x = 18.7 min on average. In addition, 62 online

Table 1
Representative survey (2021) of Bern and Ostermundigen inhabitants (n = 519)—Sample Characteristics.

Variable	Value	Total (n)
City district	Bern transformation District 6	28% (147)
	Other	72% (372)
Age category	18–39	24% (126)
	40–64	53% (274)
	65 +	23% (119)
Sex	Male	47% (245)
	Female	53% (274)
Religious affiliation*	Protestant	43% (221)
	Roman Catholic	19% (96)
	No faith	23% (116)
	Other faith	12% (44)
Education category **	Low	11% (56)
	Medium	44% (228)
	High	45% (229)
Cemeteries visited in the last two years ***	None	27% (142)
	One cemetery	53% (276)
	Two cemeteries	16% (83)
	Three cemeteries	4% (18)

Note: *Wording: "Which faith are you most closely affiliated with?"
"Other faith" includes small numbers of Muslims, Jews, Buddhists, Hindus, Evangelical Free Church members, and "other not specified."
* *Wording: "What is the highest educational level you have attained?" "Low" = obligatory school.
"Medium" = apprenticeship, higher occupational training, federal diploma
"High" = university of applied sciences, university, federal polytechnic
* **Wording: "During the last two years, have you either visited or passed through one or several cemeteries in the city of Bern? If so, which one(s)?"

[1] When implementing the park transformation, legal problems may have resulted from still-valid grave-site concessions at the time of the park transformation; these had a duration of 20 and 40 years (rented or family grave sites)

panel interviews were carried out, each lasting x = 6.1 min on average.[2] The latter recruitment strategy was chosen to meet the quota for participants between 18 and 39 years old.

2.3. Context of data collection and validity

The fact that our study was conducted while cemetery transformation and the repurposing of urban green spaces was a topical issue offered the rare methodological advantage of being a "natural experiment" and heightened its validity. A bias associated with the political petition is not plausible for four reasons. First, fundamental attitudes remain relatively stable over time; second, the city told people about the plan beforehand (on March 11, 2021) and notified important stakeholders in advance (including the neighborhood commission and church communities). Third, most signatures were collected before the fieldwork was carried out. Fourth and finally, the observed differences between District 6 and the rest of the city would not change the result significantly, even if potential amplification effects were assumed.

2.4. Measures

The attitude toward cemetery transformation was measured using a two-step approach; first, a single quantitative item (the "Bümpliz case") specified core elements of the plan:

> "For budgetary reasons, the city of Bern is planning to discontinue new burials at Bümpliz cemetery from 2023 onwards and will proceed with a long-term transformation of the cemetery into a park. What do you think of these plans? Are you opposed, somewhat opposed, somewhat in favor, or in favor of the plans?".

Second, a qualitative, open-ended follow-up question allowed for content analysis of the underlying views of proponents and opponents. Openness toward potential changes and alternative cemetery use was linked to projects being considered by the city, including a burial section for pets and restaurants at cemeteries.

The wording of the 10 items used to tap into perceptions/ideas about the nature of cemeteries (see Section 3.3) was somewhat informed by local/regional conceptualizations and previous studies (e.g., Goh and Ching, 2020), even though no tested scales were identified in the literature. A cursory content analysis was applied to the comments of Swiss news website users (n = 63) on a news feed entitled "*Gestörte Totenruhe—Zürcher Friedhof: Alkohol, Drogen und Sex-Treffen*" ("*The peace of the dead disturbed—Zurich cemetery: alcohol, drugs, and sexual encounters*") [SRF (Swiss Radio and Television Agency) news clip, May 11, 2021; Interview with Rolf Steinmann, Director of the Zurich Sihlfeld cemetery]. The background of this public discussion was the unwanted use of cemeteries during COVID-19 when public parks were closed but cemeteries were open.

For comparison, the participants' sociodemographic characteristics were measured, in line with public statistics. Given the focus of the study, the respondents' religious affiliations were not necessarily formal church allegiances, but simply the religious communities they felt closest to (religious affiliation). The question asked: *"Which faith are you most attached to*?".

[2] (CATI) Telephone interviews are guided by a questionnaire displayed on a computer screen. The interviewer records answers, using a keyboard and mouse to select pre-coded responses displayed on the screen.A custom online panel or Internet access panel is a group of pre-screened respondents who have expressed a willingness to participate in surveys. The custom online panel is also known as a customer advisory panel, proprietary panel, or online research panel. Respondents become "panelists" by completing a profiling questionnaire. The collected data include demographics, lifestyle characteristics, and media habits, providing a basis for future survey participation.

3. Results

3.1. How much change is acceptable? Predictors of attitudes toward cemetery transformation

A majority (69%) of Bümpliz citizens were opposed to the city's plans to disallow new graves from 2023 onward while converting the cemetery into a park; a further 19% were somewhat opposed. Opposition in the rest of the city (and Ostermundigen) was significantly weaker ($p < 0.001$), with 28% of respondents opposed and 27% somewhat opposed (Table 2).

In relation to other types of change and innovation, the city's population had a decidedly positive response to potential innovations; 68% of respondents were in favor of creating a burial ground for cremated pets in the future. ($p < 0.001$). Support for such changes generally came from younger, less religious respondents (rp =0.32; rp = 21).

A majority (54%) welcomed religious exceptions to the cemetery regulations, with women being generally more open to such initiatives than men (59% in favor vs. 49% of men; $p < 0.02$). Neither age nor education correlated with a willingness to accept more flexible rules, although the group that favored change included many respondents with no religious affiliation (54%, n = 62).

With regard to cemeteries as *economic landscapes*, the current cemetery regulations (backed by a lobby of tomb makers and stone sculptors) authorize the use of "original materials" only. On the one hand, the survey revealed overwhelming acceptance of "imitation" gravestone designs (78% in favor); on the other hand, respondents clearly rejected any liberalization of the trade in funeral paraphernalia (64%). Those surveyed said, "yes to imitations, but only to those made by professionals." This finding offers new opportunities for artists and craftspeople, and ways to expand the concept of the gravestone as a work of art.

In response to the idea of establishing a restaurant on the cemetery premises—a proposal being considered by the city—a slight majority (54%) of respondents disapproved, although one-third (32%), a relatively high proportion, disapproved less strongly and might eventually be persuaded to support the idea. Younger and less religious respondents tended to support such innovative ideas (rp =0.21; rp =0.18).

Among the selected determinants of attitudes toward cemetery transformation, familiarity with cemeteries was found to play a role (see Table 3). Of the 46% of respondents who had visited even one of the three cemeteries, 33% were less likely to favor the transformation plans. A slight majority (51%) of respondents who had not visited a cemetery in the last two years [31% (n = 163), corresponding to almost a third of the urban population] were in favor of transforming the cemetery into a park. The greater the level of "cemetery familiarity" ($p < .000$), the

Table 2
Attitude toward cemetery transformation by urban region (total unweighted sample).

Attitude toward cemetery transformation*	Bern transformation District 6	Neighboring town Ostermundigen	Other districts in the city of Bern	Total
Opposed	69.0% (n = 100)	27% (n = 10)	27.6% (n = 80)	40.3% (n = 190)
Somewhat opposed	18.6% (n = 27)	43.2% (n = 16)	26.6% (n = 77)	25.4% (n = 120)
Somewhat in favor	6.9% (n = 10)	18.9% (n = 7)	27.2% (n = 70)	20.3% (n = 96)
In favor	5.5% (n = 8)	10.8% (n = 4)	18.6% (n = 54)	14.0% (n = 66)
Total	100% (n = 145)	100% (n = 37)	100% (n = 290)	100% (N = 472)

Note: *Item wording: "For budgetary reasons, the city of Bern is planning to discontinue new burials in the Bümpliz cemetery from 2023 and proceed to a long-term transformation of the cemetery into a park. What do you think of these plans? Are you opposed, somewhat opposed, somewhat in favor, or in favor of these changes?"

stronger the opposition.

A closer look confirms that opposition to the transformation plans increased significantly as the number of cemeteries visited in the last two years increased (rp = 22 p < 0.000). Opposition increased from 63% (n = 147) among those who had visited one cemetery to 74% (n = 52) among those who had visited two, and 88% (n = 15) among those who had visited all three cemeteries.

In a similar finding, people with relatives buried in Bern cemeteries were strongly opposed to the conversion plan (54% opposed; 23% somewhat opposed) (p < 0.000). Among various socio-demographic characteristics, age played the most differentiated role; only people in the oldest age group (65+ years) expressed outright rejection (59%), while the majority in other age groups had relativized opinions, with those who were somewhat opposed representing approximately 30%. Women tended to reject the closure plans more strongly than men (67% vs. 55%). Most people who belonged to large Roman Catholic or Protestant denominations also opposed the closure plans (65% and 69%, respectively). By contrast, 56% of those who professed no faith were in favor of the city plans. The numbers in this group more than doubled between 2000 (11%) and 2019 (28%) (source: Federal Office of Statistics, January 26, 2021).

A linear regression analysis of attitudes toward cemetery transformation (Table 4) revealed that the local context (i.e., the district in which the cemetery closure was planned vs. other districts) was the most significant predictor, with a value of BETA = 0.223, followed by age (0.174), religious allegiance (−0.133), income (−0.120), and knowledge of the cemetery (0.103). However, the total variance amounted to a modest R2 = 0.180. This finding highlights the need for further exploration of the multi-dimensionality of attitudes toward planned cemetery transformation—and the rationales for opposing or supporting such plans.

3.2. How complex are underlying belief systems? Qualitative analysis of the attitude toward cemetery transformation

When respondents were asked to explain their rationales, their responses became easier to understand (Table 5). Those who supported transformation emphasized the positive impact of green spaces on general wellbeing; they also recognized a shift in burial-culture trends. In relation to the former, they argued that: “cemeteries should be a living space for all generations”; “more green spaces are needed because cities are getting ever hotter”; and “parks increase the population’s quality of life.” In relation to the latter, they said that: “fewer graves are needed because more people are being cremated” and “we have enough cemeteries.” Those opposed to cemetery transformation had reasons that were primarily political and locally oriented; they saw the concepts of cemetery and park as irreconcilable. We also encountered concepts such as “a sense of home,” “Bümpliz identity,” “a decree from above,” “a large city district’s sense of entitlement,” and “cost-cutting in the wrong place at the expense of Bern West,” as well as “a cemetery is not a party zone,” “it is unethical to decommission a cemetery,” and “a cemetery should remain so.”

Table 4
Summary of the multivariate linear regression analysis of the predictors of attitudes toward cemetery transformation (socio-demographic variables and knowledge of cemeteries)*.

Model	B	Std. Error	Beta	t	Sig.
(constant)	2.452	0.285		8.602	< 0.001
(1) Knowledge of cemetery	0.235	0.107	0.103	2.192	0.029
(2) District	0.554	0.119	0.223	4.646	< 0.001
(3) Religious allegiance	-0.339	0.118	-0.133	-2.882	0.004
(4) Gender	0.108	0.100	0.051	1.084	0.279
(5) Income	-0.105	0.045	-0.120	-2.359	0.019
(6) Age	0.010	0.003.080	0.174	3.689	< 0.001
(7) Education	-0.041		-0.026	-0.515	0.607

Dependent Variable: Attitudes toward cemetery transformation*
R Square = 0.180; adjusted R Square = 0.165; Std. Error of the Estimate = 0.97566
Note: (1) “Which cemetery in Bern do you know best?” Coded: 0 = do not know any cemetery; 1 = specified one cemetery as the best known; (2) Bern transformation District 6 = 1; Other districts = 0; (3) For item wording, see Table 1; Coded 1 = no religious allegiance, 0 = religious allegiance specified (4) male = 0; female = 1; (5) item wording: “What is the total monthly income in your household, considering all household members?” Five income categories; (6) age in years; and (7) item wording (Table 2).

Some respondents expressed concerns about the distance to alternative cemeteries. The representative data show that almost half of Bern citizens (49%, n = 173) “have indeed got used to” visiting a cemetery on foot (22% by public transport; 20% by bicycle/scooter; 10% by car).

However, there appeared to be some misunderstanding regarding visiting rights (which would not be affected by the transformation plans). This may have been due to the manner in which signatures were collected by the SVP (see Methodology Section 2.3), which referred to the unconditional closure of the cemetery.

3.3. What specific perceptions and concepts of “the nature of cemeteries” emerged in the public discourse? Toward a User Typology

The previous section has explored the complex underlying reasons for particular attitudes toward the city’s transformation plans. These act as a dependent variable for cemetery-related belief systems and perceptions, finding expression in the question: “What really makes a cemetery a cemetery?”.

Based on comments from the Swiss Radio and TV (SRF) users about the controversial use of Zurich cemeteries in May 2021 (see Method Section 2.4), ten questions about the possible need for regulation were formulated to assess the respondents’ general views of the character of cemeteries (Table 6). In response to the introductory question “People have different ideas about cemeteries. How strongly do you agree with the following statements on a scale of 1 = disagree completely to 6 = agree completely?” almost three-quarters (73%) completely agreed with the statement: “cemeteries belong to everyone,” while 50% believed that, without qualification, cemeteries were “of cultural importance.” With the exception of a possible ban on alcohol in cemeteries, supported

Table 3
Attitude toward cemetery transformation by cemetery visited/passed through during the last two years.

Attitude toward cemetery transformation	Visited Bremgarten cemetery	Visited the Bümpliz “conflict” cemetery	Visited Schosshalde cemetery	Did **not** visit any cemetery	Total
Opposed	25.8% (n = 31)	71.1% (n = 54)	32.3% (n = 41)	22.9% (n = 32)	34,1% (n = 158)
Somewhat opposed	28.3% (n = 34)	13.2% (n = 10)	34.6,6% (n = 44)	25.7% (n = 36)	26,8% (n = 124)
Somewhat in favor	26.7% (n = 32)	9.2% (n = 7)	22.8% (n = 29)	32.9% (n = 46)	24,6% (n = 114)
In favor	19.2% (n = 2)	6.5% (n = 5)	10.2% (n = 13)	18.6% (n = 26)	14,5% (n = 67)
Total	100% (n = 120)	100% (n = 76)	100% (n = 127)	100% (N = 140)	100% (n = 463)

p < . 001,6% (n = 67)
Note: For variable definitions/item wording, see Table 1.

Table 5
Reasons for positive and negative attitudes toward cemetery transformation — Open-ended Question.

Reasons for opposing transformation*	% (n)	Statement—example	**Reasons for supporting transformation**	% (n)	Statement—example
Conflict over use	17.9 (43)	"… this is a quiet place and not for parties."	Positive plan in general	17.7 (32)	"A park would be beautiful"
Political views	14.4 (35)	"…the city is cutting costs in the wrong places."	Common good	15.8 (29)	"A park increases the population's quality of life."
Beliefs or values	12.8 (31)	"… it is unethical to decommission a cemetery."	Burial preferences	14.7 (27)	"Many people do not want to be buried anymore."
No need for change	11.7 (28)	"You should leave it as it is."	Trust in city authorities	11.4 (21)	"I trust the authorities and their expert decisions."
Local identity	11.3 (27)	"Bümpliz was a village, and the cemetery belongs to this district."	Conditional endorsement	10.7 (19)	"I am in favor if it is turned into a calm place where people can meet."
Accessibility of alternatives	9.1 (22)	"… the people of the district should not have to go a long way to visit relatives' graves."	Personal reasons	9.6 (17)	"Personally, I don't need a cemetery to honor my ancestors; I can do that any time and anywhere."
District population	6.9 (17)	"Each of the two poles of the city of Bern should have a big cemetery."	Non-specific comment	7.4 (13)	"Don't know."
Cemetery capacity	6.4 (15)	"Many people have to be buried."	Lack of urban green space	6.7 (12)	"We need more public parks in the city […] They provide chances to meet friends in public places"
Right to burial location	5.3 (13)	"… my family is there, and I too want to be buried there."	Sufficient alternatives	6.1 (11)	"We don't need so many cemeteries in the city of Bern."
Grave-related visiting rights	4.2 (10)	"Visiting the graves is …still important."			
Total	100 (241)			100 (181)	

Note: * Item wording: "Could you please briefly state why you are (somewhat) opposed to (in favor of) Bern City's plans to stop burials from 2023 and proceed to a long-term transformation of the cemetery into a park?"

unreservedly by 41% of respondents, other bans (closing cemeteries at night, introducing surveillance, banning smoking) found little support (only 23%, 9%, and 22% of respondents, respectively, entirely endorsed these views).

Finally, we conducted an exploratory factor analysis of the way in which community attitudes and views of the transformation plans were embedded in various perceptions of the nature of a cemetery. Four components were extracted, with values of KMO = 0.720 (minimum >0.6) and Bartlett's test sig. (0.000). The model, explaining 52% of the total variance, met the statistical requirements.

Based on the analysis of factor loadings (reported if >. 14), the components can be grouped into four profiles or types (see Table 7).

Type 1 (highest loading.663: alcohol ban; lowest −0.461: attitude toward cemetery transformation) is an "*order-loving advocate of the status quo*" who is "classically conservative and very religious and restrictive." This person consistently rejects innovation, clearly opposes the transformation plans, and calls for additional surveillance measures and bans.

Type 2 (highest loading *0.727*: "mirror of cultural values;" lowest −0.288: smoking ban) is a "*boundless nature lover,*" fond of nature and culture, who sees cemeteries as common property that does not need further regulation. This type is moderately opposed to transformation plans and shares (presumably conservative) social values with Type 1.

Type 3 (highest loading.686: "supermarket for funeral items;" lowest.184 "the dead don't care what happens") comes across as an *"innovator who shows due respect"* and clearly supports all innovative projects, most notably the liberalization of the market for funeral objects. His or her support for cemetery closure plans tends to be of secondary importance, probably because this type also sees the cemetery as a religious place in which some things should not be permitted (e.g., smoking).

Type 4 (highest loading.630: "the dead don't care what happens;" lowest −0.295 "holy place") is an "*atheist/orderly adherent of the transformation plans.*" This type clearly favors transformation and is not religious. Interestingly, he or she also favors clear additional regulations in the cemetery (hence "orderly").

Table 6
Perceptions of "the nature of cemeteries" * among inhabitants of Bern and Ostermundigen (Total sample n = 519).

"Cemeteries."*	M (SD)	% Fully agree	% Fully disagree
.belong to everybody."	4.56 (0.880)	73%	3%
.have cultural meaning."	4.15 (1.08)	50%	4%
.are an experience of nature."	3.51 (1.23)	25%	9%
. mirror the values of society."	3.45 (1.23)	26%	10%
"The dead don't care about what happens in cemeteries."	3.42 (1.49)	36%	18%
"Cemeteries are holy places."	3.24 (1.34)	23%	11%
"Alcohol should be banned in cemeteries."	3.56 (1.55)	41%	16%
". should be closed overnight."	2.92 (1.53)	23%	18%
"Smoking should be banned in cemeteries."	2.75 (1.56)	22%	34%
". should be better surveilled by security services."	2.47 (1.24)	9%	27%

Note: * Item wording, lead question: "People have different conceptions of cemeteries. To what extent do you agree with the following statements, on a scale of 1 (completely disagree) to (completely agree) (5)?"

4. Discussion

4.1. Negotiating urban green spaces—the community as a laboratory

The present study is the first to use a quasi-experimental or natural design (De Vocht et al., 2017) to describe and explain the attitudes of selected stakeholders toward the transformation of cemeteries into urban green spaces. The Bern transformation plans represent a situation that is beyond the researcher's control while enabling a comparison between populations in the transformation district and unexposed districts. Although the municipal planning authorities did not intend this, the proposal to close a cemetery represents an ethnomethodological norm-breaching experiment (Garfinkel, 1967), which challenges traditional perceptions of the nature of cemeteries and highlights the interests of various user groups. By examining a situation unfolding in the real world and using the community as a laboratory, this study has presented a more valid and complex analysis of the role of cemeteries

Table 7
Concepts related to the nature of cemeteries, innovations, and attitudes toward cemetery transformation—Component Matrix of an Exploratory Factor Analysis (N = 519).

Variables*	1	2	3	4
(1) Concept: "Alcohol ban"	0.663	–0.227		0.279
(2) Concept: "More surveillance"	0.636		0.174	0.167
(3) Concept: "Holy place"	0.608	0.193	0.280	–0.295
(4) Concept: "Overnight closing"	0.563	–0.234		0.304
(5) Concept: "Smoking ban"	0.548	0.288	0.265	0.373
(6) Innovation: "Restaurants in cemeteries"	0.487		0.363	
(7) Attitude toward cemetery transformation	0.461	0.280	0.282	0.380
(8) Concept: Experience of nature		0.727		0.239
(9) Concept "Cultural meaning"		0.647		
(10) Concept: "Mirror of societal values"	0.441	0.573		
(11) Innovation: "Section for pet burials"	0.301		0.703	
(12) Innovation: "Supermarkets for funeral items"	0.182	0.171	0.686	
(13) Concept: "The dead don't care what happens"	0.392	0.151	0.184	0.630
(14) Concept: "They belong to everybody"	0.196	0.359		0.385

Note: Extraction method: Principal Component analysis; total variance explained: 52%; initial intrinsic values of variance by component: 20%, 13%, 10%, 9%. Bartlett's test: Kaiser-Meyer-Olkin measure of sampling adequacy.720; approx. Chi Square 78, df 78; Bartlett's test of sphericity, Sig.000.
* For the exact wording of items 1–5, 8–10, 13, and 14, see the notes in the previous tables. Item 6: "Is it acceptable to operate a restaurant in a cemetery?" No (1), Not really (2), It's OK (3) Yes (4); Item 11: "The idea is currently being discussed that incinerated pets could be buried in specific burial areas. What do you think of this idea? Are you opposed (1) somewhat opposed (2), somewhat in favor (3) or in favor (4)?" Item 12: "Do you think it would be desirable to liberalize the trade in funeral items, such as tombstones, for example, by making them available on the Internet or at a hypermarket?" Coding as for item 6.

than surveys referring to hypothetical situations.

The present study uses burial culture and the function of cemeteries as a case study; the findings reflect sociocultural changes. The dynamic is shaped by conflicts between different values and interests. Specifically, this research highlights the need to include groups that are both familiar and unfamiliar with cemeteries, demonstrating that the latter are more open to change. The local meaning of cemeteries and policies governing municipal green urban spaces are shown to be important contextual parameters, which have been neglected in previous studies. This finding is exemplified by the text of the petition opposing the park-transformation plan. In writing this petition, the local chapter of the Swiss People's Party included almost all of the arguments in favor of rejection that were spontaneously expressed by respondents. From an interactionist perspective, the party's successful anticipation and recognition of public opinion is noteworthy.

On an individual level, age and emotional attributes play a role. Unexpectedly, positive attitudes toward the transformation were found to increase with household income. This may be linked to a general leisure orientation, with wealthier respondents favoring parks over landscapes for mourning. Finally, four profiles or types emerged, linked to the perceptions of cemeteries, and views on innovative projects for alternative uses. These factors must be considered by the managers of urban green spaces, who must make policy decisions while simultaneously balancing the interests of different groups.

4.2. Limitations

The generalizability of the study results depends on the sociopolitical context. In Switzerland, a consensual democracy, communes play a key role in local identification and the "feeling of home" ("Heimatgefühl"). This influences the acceptance of environmental change in general, and cemeteries in particular, even across generations. Bümpliz was an independent, small village with its own cemetery until 1919, before its incorporation into the city of Bern.

Although the data-collection method used here (short telephone interviews and a representative sample that included non-visitors to the Bern cemeteries) had many advantages, it made it somewhat difficult to gather in-depth information. In future studies, a representative database should be supplemented through face-to-face narrative interviews with cemetery visitors.

4.3. Conclusions

Based on the results presented above, municipal policymakers should consider adopting strategies to optimize planning and participation when promoting "cemeteries as public spaces." They should address opposing arguments constructively, identifying barriers to implementation. Especially in a consensus democracy like Switzerland, this is a familiar and proven strategy.

More specifically, we recommend "concretizing" the character and features of alternative parkland usage, emphasizing that the cemetery will not become "a party zone," and introducing flanking measures, such as an alcohol ban. The city's information policy must eliminate all misunderstandings about the transition timeline and the protection of grave-site visiting rights. When residents express the fear that there will be insufficient cemetery capacity, they must be provided with information, e.g., the fact that 38% of city residents prefer to be buried outside a cemetery and cremation (the preferred approach) uses less and less cemetery space. It is worth highlighting the fact that cremation, as a trend, may lead to unwanted commercial alternative land use. By contrast, park transformation protects a public good. The city could even mobilize residents with the slogan: "Make the cemetery a public park to save it from the greed of property developers!".

The survey results also reveal actual user needs, including improved access to alternative cemeteries via public transport, sufficient parking spaces, and shuttle services for older adults.

The diverse responses to innovative projects probably reflect the images people have of such innovations in practice. While "creating a burial ground for animals" leaves little room for imagination, setting up a restaurant on the premises and adapting the cemetery regulations can be interpreted very differently. To help residents appreciate and accept such plans, the city must provide more detailed information and transparency. This conclusion is confirmed by the high proportion of undecided respondents.

Finally, from a civic-society perspective, information policies should raise general awareness of the needs of various user groups, which are becoming increasingly important (e.g., people without faith; those who do not currently visit cemeteries, and older adults).

Municipal policy planners can embed all these issues within a dialogue of values in appropriate forums (e.g., town hall and city quarter meetings) to discuss cemeteries as sacrosanct holy places vs cemeteries belonging to everyone. In these settings they can explain how creating more green spaces could protect the city from the ravages of climate change. The typology that emerges from this study provides a road map, which can be used to structure "round-table discussions" between "order-loving advocates of the status quo" who are classically conservative, very religious, and very restrictive; "boundless nature lovers," who are fond of nature and culture and see cemeteries as common property; "innovators who show due respect" and clearly support all innovative projects; and "atheists/orderly supporters of the transformation plans," who are clearly in favor of the park transformation and are not religious.

The extent to which these sociological proposals fully capture the reality of municipal politics is open to debate. However, we believe that this study makes an initial contribution to rationalizing political dialogue and enhancing the efficiency of democratic negotiating processes associated with urban green spaces at a municipal level.

Funding

This study was supported by the City of Bern, Stadtgrün Bern; and Bern University of Applied Sciences, Switzerland.

CRediT authorship contribution statement

Conceptualization, Data curation, Formal analysis, Methodology, Writing - original draft, Writing - review & editing, data analysis, interpretation, composition of the manuscript as well the revision has been entirely performed by the author Harald Klingemann.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

Acknowledgments

Special thanks go to Christoph Schärer (Director of "Stadtgrün Bern", the Bern municipal office for urban green spaces) and his team. Together with my current and former colleagues Jimmy Schmid (project coordination and administration), Josef Lukas Loretan and Walter Kretz, they provided valuable input for the conceptualisation and construction of the survey instrument and informed us about the specific characteristics of the cemetery sites. Dr Andrea Umbricht from gfs-Zürich – Market and Social Research Institute – coordinated the data collection very efficiently, and gave us valuable advice on suitable sampling strategies and methodological aspects.

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