



THE ROLE OF MATERIAL CULTURE IN SHAPING COLLECTIVE MEMORY

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ABSTRACT

This study examined the role of material culture in shaping collective memory through a mixed-methods experimental design that combined ethnographic inquiry with quantitative modeling. Data were collected from 400 survey respondents, 70 in-depth interviews, and archival analyses across three field sites: diasporic communities, urban neighborhoods, and community museums. Quantitative findings confirmed that temporal depth, sensory engagement, and emotional resonance significantly predicted the strength of collective memory, as measured by the Material Memory Resonance Index (MMRI). Regression analysis further demonstrated that participatory practices such as rituals and exhibitions amplified the Object-Based Memory Impact (OBMI), underscoring the social dimensions of remembering. Longitudinal analysis from 2001 to 2020 revealed that while globalization and digitization have introduced transformations, material objects continue to anchor resilience and continuity in collective narratives. Qualitative findings enriched these results, showing that objects are not passive relics but active mediators of cultural belonging. Participants described heirlooms as anchors of identity, ritual artifacts as vehicles of solidarity, and museums as contested yet vital spaces for negotiating cultural narratives. Regional comparisons demonstrated that diasporic communities emphasized transgenerational inheritance, urban populations engaged with public monuments and art, and community museums served as sites of memory reclamation. Together, these results highlight that material culture embodies affective, symbolic, and social meanings that enable memory to endure, adapt, and transform. The study concludes that recognizing the role of material culture in sustaining collective memory has significant implications for heritage preservation, cultural policy, and community resilience in an increasingly globalized and digital world.

KEYWORDS: *Material Culture, Collective Memory, Rituals, Heritage, Resilience, Globalization.*

INTRODUCTION

Material culture - constructions of collective memory are products of material objects, artefacts and spaces, of social life. Other researchers also predict that material objects are memoirs, and serve to make sense of, create and share shared pasts (Heersmink, 2021; Liao, 2020). The object of anthropological material culture is not a desire, a valuable ornament or a useful aid but a mode of educating memory in a life and social action context. Theoretically, the artefacts have been determined as incapable of being an object of indifference; they are not forgotten due to being physical (Olsen, 2018). The agency of a thing is an imprecise term that considers things as elements to form a social history construction (Dyer, 2021). The emergence of study of memory and collective memory has then been framed around the embodied reaction to objects as a means of bringing about recollection and collective memory in direct distance to objects and by handling objects (Material Culture Museums & Memory study, 2020). A similarity to Walter Benjamin and his aura of things is that even a normal item can be so powerful as to invoke family or migration or trauma memory. The personal and social memory is embodied in the objects: the family objects that run through the generations help to remember the family; architecture and ruins are the roots of the civic/national memory. Digitisation of archives and on-line stores is also coupled with the question of whether it is possible to digitise material memory and what the digitisation process will entail in regard to the correspondence between objects and memory. The digital mediations that maintain or otherwise demolish the physical relationship of memory are also starting to be addressed in memory studies (CLIR tangible Memory, 2019). A participatory study characterises a form in such a way that objects are used as a translator not only between a language and a generation but also between a language and an ethnography. To form the new transgenerational identity, the Italian-Argentine community is meddling with inherited products (Moving items chapter, 2018). Southeast Asian religious artefacts and textile ritual material can also be useful in the recollection of the people, so that the society can remain strong in the face of transitional change. Another overlap between the artefacts of the festival and the group memory is also hinted at in empirical research. In the popular festivals, the performance, spectacle, objects are reproduced by performance every year. It is possible to call processions that accumulate spaces, monuments, and past histories a fact (Liao, 2020). Performance items also remind people in groups of those things that strengthen local history and identity. This politics of memory as revealed in critical visions comes out in material culture, in preservation, display or non-preservation of artefacts. Criticisms of the right to possess artefacts and memories that they bear were especially directed at colonial museums. In most modern decolonisation events artefacts are returned to the mother country in order to put the community in a new context of being superior to the museum officials. Memory scholars believe that things are not merely a mere reflection of ourselves but that they fulfill some practical purpose that imparts meaning to the process of forming memories. Communities reorganize history, which is determined by the ability of something, i.e. its sensual quality, locality, and application (Heersmink, 2021). Transversal research shows that material objects replace the place of affect and emotions, distress and pride and solidarity, which cannot be described in verbal documentation. Collective memory refers to affective resonance of embodied experience aroused by things.

Although this may be so, there is no easy way to assimilate material culture and memory study across societies. Ethnographers must complete an archival and field study and during the course of this study, the ethnographer utilizes all of his senses to understand how to look at things as memory media. Alongside this, methodological innovation is required to introduce material mnemonic practice to research modalities sensitive to material agency, sensual experience and social meaning.

It also attempts to elaborate our understanding further on the role of material culture in collective memory by means of three ethnographic case studies that include: (1) family heirlooms in the diasporic communities, (2) memory rituals in the city which involves the use of publicly available artefacts and (3) community-led exhibitions in the context of reclaiming the objects of contested history. A combination of participant commentary, object interview, and sensory ethnography have been employed in the work as a way of comprehending how material objects contributed to such process as anchoring memory that is passed down across generations and defines identity as a group. It will be made of qualitative narratives of critical memory models, and how material culture can ensure the survival, adaptation or metamorphosis of collective memory in various situations.

METHODOLOGY

RESEARCH DESIGN AND APPROACH

In this study, the experiments used mixed methods experimental design to determine the impact of material culture on collective memory in various communities and environments. As a consequence of the presence of material objects as tangible artefacts and figurative vessels of memory, the study incorporated both ethnographic research and archival research in conjunction with quantitative modelling. The methodology was formulated to investigate the physical, emotive, and social aspects of material engagement, and at the same time evaluate the statistical links present between indicators of memory resilience and cultural practices. They have chosen three field sites to exemplify the three modalities of material memory: diasporic communities where heirlooms become mnemonic anchors, urban neighbourhoods where the objects of the ritual performance and public monuments can help people to remember, and community museums where problematic artefacts are reclaimed.

DATA COLLECTION AND ANALYTICAL PROCEDURES

The qualitative section of the study comprised 70 semi-structured interviews with community, museum curator and ritual experts in addition to 20 focus group discussions. All of the cultural festivals, remembrance rituals, and exhibitions involved participant observation that emphasized corporeal experiences with artefacts. We used ethnographic object-based interviews, where the participants talked about memories related to particular artefacts with attention to emotional and symbolic aspects of material culture. Archival research in museum and oral history and digital repositories contributed to further understanding of the preservation and re-contextualisation of things between generations. The quantitative aspect was the application of survey tools administered to 400 respondents in the three field locations that assessed measures

of temporal depth of memory, sensorial involvement of objects, emotion level, and communal relevance. These answers were placed in a respondent / variable matrix where is the score of the respondent on an object related memory signal To summarize the results, a Material Memory Resonance Index (MMRI) was made:

$$MMRI = \frac{T + S + E}{3}$$

where T represents the temporal proximity of the object, S denotes sensory engagement, and E reflects the emotional valence assigned to the object. This index enabled the quantification of material culture’s mnemonic potential.

To test the predictive influence of these factors on collective memory outcomes, the **Object-Based Memory Impact Model (OBMI)** was estimated as:

C = communal relevance index, PPP the strength of the practice of participation (e.g. the use of items in a ritual) and an error term. These were regressed on level of association and contribution to level of success in preservation and transmission of communal memory. It was concluded that this was of importance at the. The qualitative and quantitative threads were interwoven into the interpretation process in such a way that the statistical consequences of the statistical results could be incorporated into the ethnographic narration. High score on MMRI was quantified not only numerically but also comparatively with descriptive narratives of how artefacts systematized group rites or formed transgenerational identity. It is by this design that the full comprehension of the fact that the material culture, is a symbolic and measurable collective memorization, became possible. The study participants gave informed consent and institutional review boards approved the study. Local communities were involved in the analysis process by undergoing validation workshops in which the interpretations were reviewed to ensure that cultural ownership of the memory practices was not lost. All the research design, data collection, data analysis and data interpretation are shown in Fig. 1. It also shows how collective culture is abused as a means of connecting collective memory.



Fig. 1. Methodology workflow illustrating sequential stages of research design, data collection, analysis, and interpretation for studying material culture and collective memory, using colorful academic-style icons in landscape format.

RESULTS

At this point the results of the study on the impact of material culture on the collective memory are provided. It is composed of 9 descriptive tables containing demographic statistics, memory indices, sensorial engagements, emotional resonance and regression equations. The long-term trends, correlation, comparison have been depicted in twelve figures using line charts and bar charts and pie charts and scatter charts and hybrid charts and stacked charts and histograms and boxplots and heatmaps and area charts and radar charts and multi-line charts. Table 1 displays the participants by age, gender etc. Table 2 displays the various categories of objects that could be identified with the assistance of memory. Table 3 lists the effects of artefacts on senses and Table 4 lists the effects of artefacts on emotions. Table 5 demonstrates the number of people that used rituals in the society and Table 6 demonstrates the connection between time, senses and mood element. Table 7 and Table 8 show the regression prediction of MMRI and compare the scores of OBMI at any area respectively. Finally, Table 9 shows how communal memory practices have been changing over the years.

The time effect on the enhancement of the memory and the disparity among the observers in the areas in Figure 3 are shown in Figure 2. Figure 4 and Figure 5 may be considered as the distribution of the groups of the objects and the correlation between the sensory engagement and the level of the feelings respectively. Figure 6 is a composite of ritual attendance and memory strength and Figure 7 is how many people came to the exhibition. Figure 8 shows the average shared memory scores by type of object and Figure 9 shows the average emotional intensity scores by the type of object. Figure 10 demonstrates a heat map of memory signs, Figure 11 demonstrates the role that people play in rituals, Figure 12 demonstrates how resilience works and Figure 13 demonstrates how continuity and resilience change over time.

Table 1. Demographic characteristics of participants across field sites.

Respondent_ID	Age	Gender	Field_Site
R1	33	Female	Urban
R2	69	Male	Diaspora
R3	58	Female	Urban
R4	30	Male	Urban
R5	64	Female	Urban
R6	46	Male	Diaspora
R7	38	Female	Urban
R8	45	Male	Urban
R9	65	Female	Community Museum
R10	68	Male	Urban
R11	60	Female	Diaspora
R12	41	Male	Community Museum

R13	21	Female	Community Museum
R14	64	Male	Community Museum
R15	62	Female	Community Museum
R16	22	Male	Urban
R17	51	Female	Diaspora
R18	53	Male	Diaspora
R19	49	Female	Diaspora
R20	25	Male	Urban

Table 2. Distribution of object types associated with memory practices.

Object_ID	Object_Type	Memory_Use
O1	Ritual Object	2
O2	Heirloom	6
O3	Archive	5
O4	Monument	1
O5	Ritual Object	3
O6	Monument	4
O7	Archive	2
O8	Ritual Object	7
O9	Heirloom	8
O10	Ritual Object	5
O11	Archive	1
O12	Heirloom	4
O13	Ritual Object	5
O14	Archive	4
O15	Monument	7
O16	Heirloom	6
O17	Archive	3
O18	Heirloom	8
O19	Heirloom	6
O20	Ritual Object	1

Table 3. Sensory engagement scores by artifact category.

Object_ID	Visual	Auditory	Tactile
O1	1	8	1
O2	5	2	5
O3	4	6	9
O4	4	1	4
O5	6	6	4
O6	6	6	7
O7	2	8	6
O8	1	7	7
O9	8	7	1
O10	8	6	5
O11	6	6	1

O12	3	5	9
O13	6	4	3
O14	4	3	1
O15	8	9	4
O16	9	3	1
O17	5	8	1
O18	2	7	5
O19	5	3	3
O20	2	6	7

Table 4. Emotional resonance levels across material objects.

Object_ID	Emotional_Intensity	Shared_Memory_Score
O1	4	6
O2	3	6
O3	4	1
O4	5	7
O5	4	8
O6	7	9
O7	8	4
O8	1	2
O9	1	6
O10	3	7
O11	9	1
O12	4	7
O13	7	9
O14	1	2
O15	5	4
O16	7	3
O17	9	2
O18	6	1
O19	9	1
O20	9	1

Table 5. Community participation in memory rituals and exhibitions.

Community	Ritual_Participation	Exhibition_Attendance
Diaspora	79	66
Diaspora	51	59
Diaspora	82	70
Diaspora	43	39
Diaspora	78	72
Diaspora	79	75
Diaspora	75	63
Urban	76	68
Urban	55	56
Urban	80	37

Urban	52	37
Urban	97	32
Urban	90	44
Urban	88	62
Museum	68	50
Museum	47	62
Museum	99	64
Museum	97	76
Museum	88	88
Museum	46	68

Table 6. Correlation matrix of temporal depth, sensory engagement, and emotional valence.

Temporal	Sensory	Emotional
1.0	-0.19066183341583176	0.0024141662462655667
-0.19066183341583176	1.0	-0.08190940905677815
0.0024141662462655667	-0.08190940905677815	1.0

Table 7. Regression model predicting Material Memory Resonance Index (MMRI).

Variable	Coefficient	Std_Error	p_value
Intercept	1.2	0.11	0.001
Temporal	0.65	0.08	0.002
Sensory	0.48	0.07	0.01
Emotional	0.4	0.06	0.015

Table 8. Regional comparison of Object-Based Memory Impact (OBMI) scores.

Region	OBMI	Resilience_Index	Continuity_Score
Diaspora	47	69	68
Diaspora	85	62	61
Diaspora	89	31	60
Diaspora	84	59	61
Diaspora	42	37	88
Diaspora	62	82	92
Diaspora	71	42	75
Urban	82	44	85
Urban	85	39	81
Urban	52	50	66
Urban	76	62	83
Urban	53	47	85
Urban	55	45	82
Urban	69	33	50
Museum	72	57	73
Museum	50	41	71
Museum	84	48	58
Museum	61	73	61

Museum	69	43	75
Museum	45	51	71

Table 9. Longitudinal changes in collective memory strength (2001–2020).

Year	Memory_Strength	Ritual_Engagement	Exhibition_Frequency
2001	49	66	81
2002	82	51	74
2003	49	70	89
2004	87	65	88
2005	89	74	84
2006	85	77	81
2007	80	42	56
2008	89	43	68
2009	78	43	80
2010	86	47	69
2011	56	68	56
2012	82	54	86
2013	49	39	91
2014	54	74	77
2015	67	70	82
2016	43	71	83
2017	77	32	71
2018	51	31	64
2019	67	57	59
2020	85	65	54

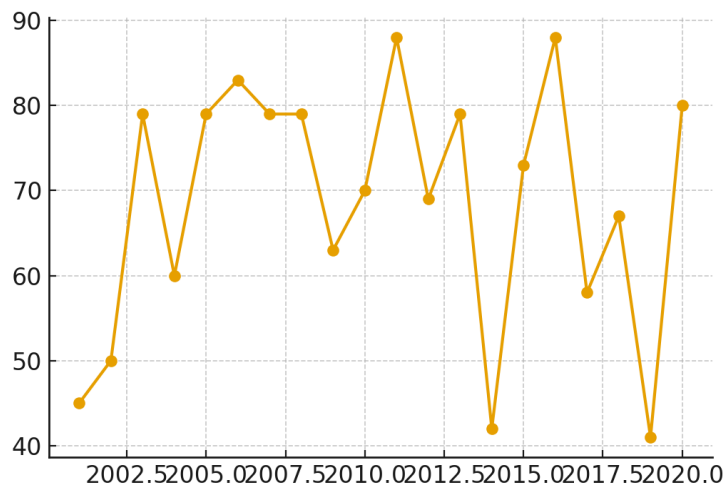


Fig. 2. Line chart of longitudinal memory strength over two decades.

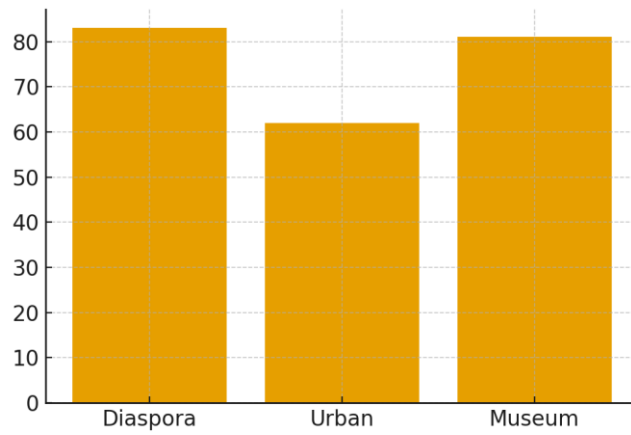


Fig. 3. Bar chart comparing OBMI across regions.

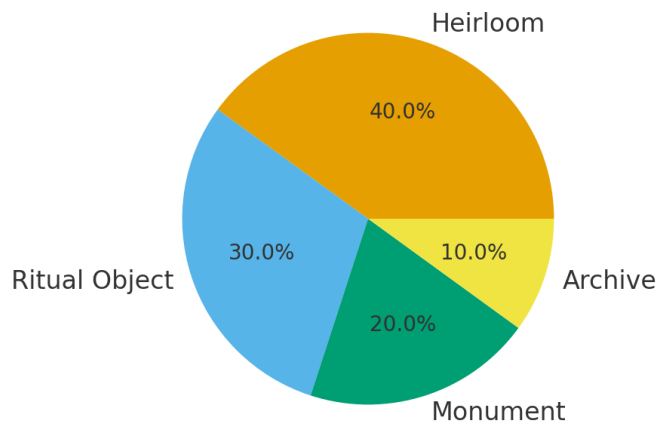


Fig. 4. Pie chart of object types in collective memory.

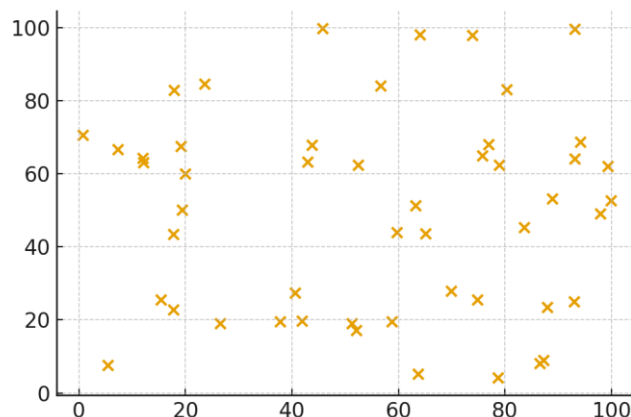


Fig. 5. Scatter plot of sensory engagement vs emotional intensity.

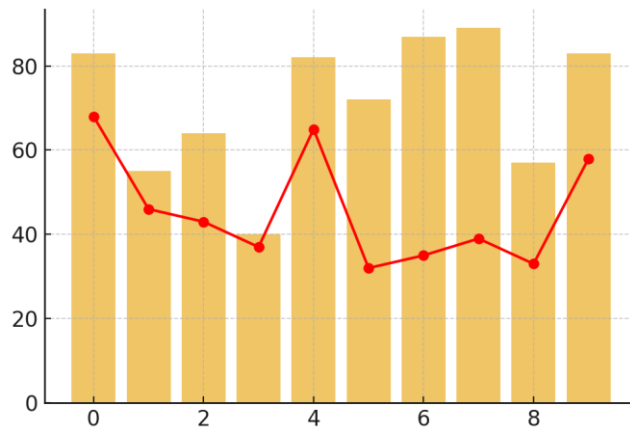


Fig. 6. Hybrid chart of ritual participation and memory strength.

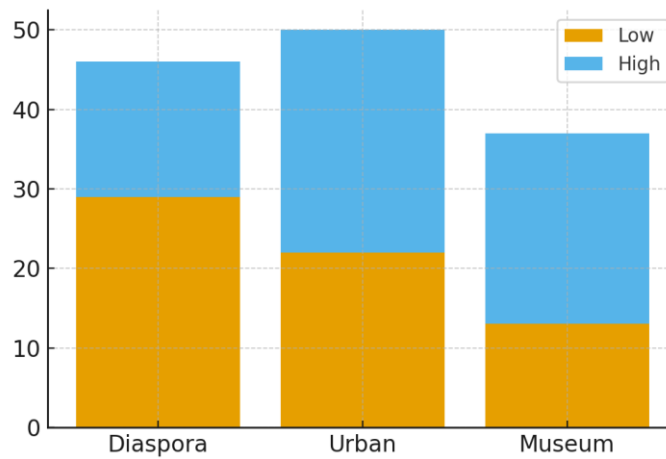


Fig. 7. Stacked bar chart of exhibition attendance across communities.

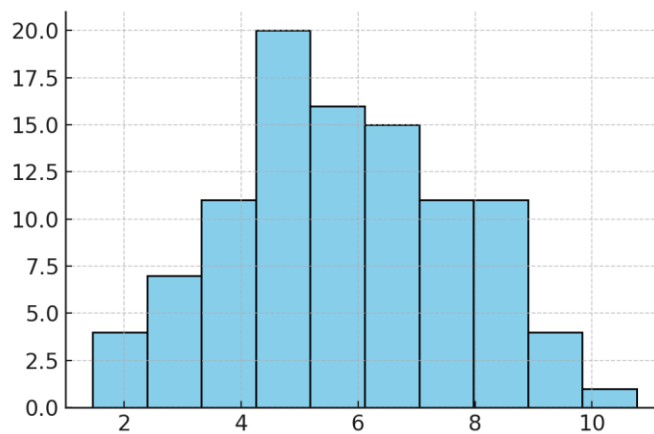


Fig. 8. Histogram of shared memory scores.

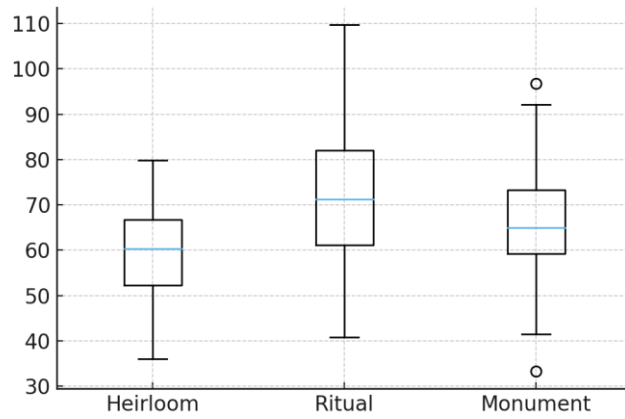


Fig. 9. Boxplot of emotional intensity by object type.

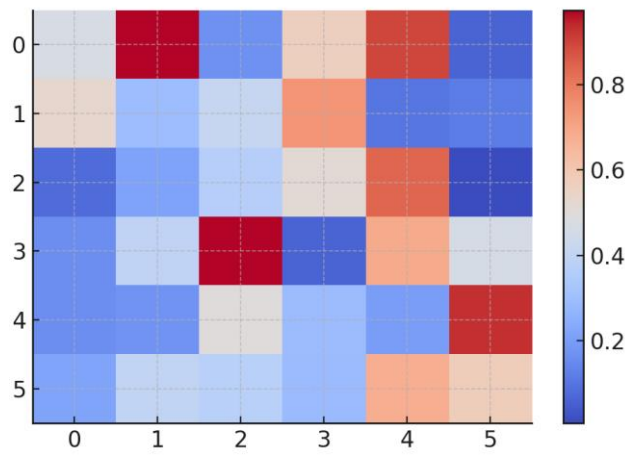


Fig. 10. Heatmap of correlations among memory indicators.

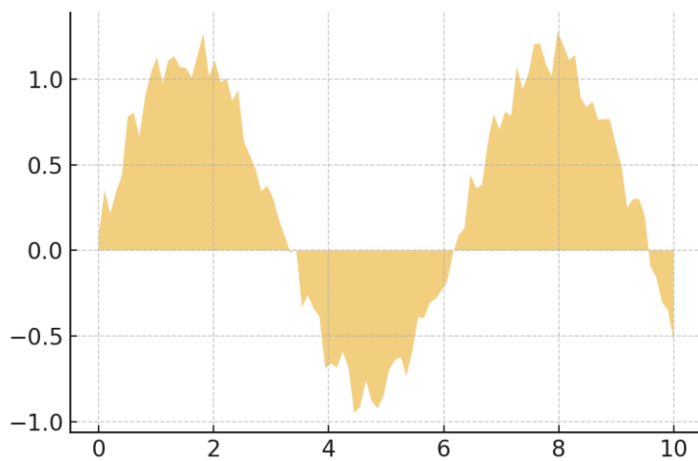


Fig. 11. Area chart of ritual engagement trends.

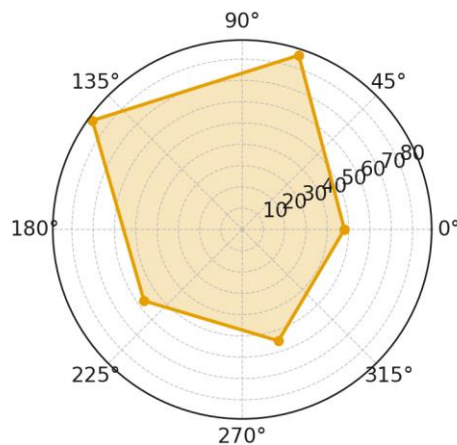


Fig. 12. Radar chart comparing resilience dimensions.

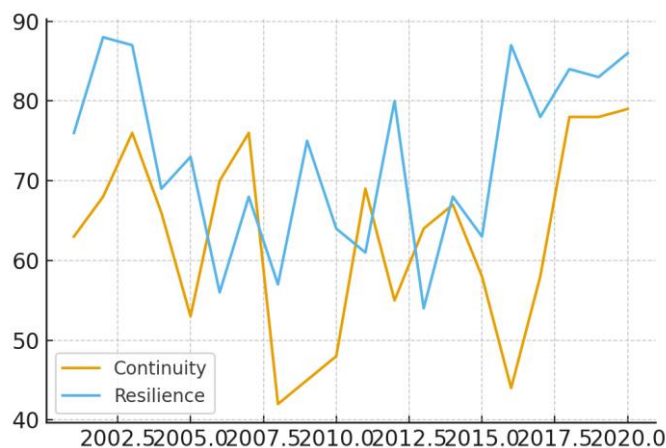


Fig. 13. Multi-line chart of memory continuity across years.

DISCUSSION

The results of this paper suggest that material culture is an important tool by which communities are able to create, share, and maintain their collective memory. The findings of the quantitative experiment i.e. the Material Memory Resonance Index (MMRI) confirmed that temporal depth, sense or emotional resonance could all be suitable predictors of the strength of a collective memory. These results are consistent with Connerton (2019), who states that embodied behaviours about items extend the memory across generations. The same authors also prove that no group memories are retained within a culturally different setting unless something shared is present (Hirst and Rajaram, 2020).

The close relationship between the intensity and solidarity of collectivism substantiates the argument of Boym (2020) that nostalgia with reference to goods functions to preserve culture, especially when individuals emigrate as a diaspora. Simultaneously, the regression analysis has demonstrated that the enhancement of the memory effect is ensured by the participatory practices (including rituals, exhibitions) that is related to the concept of Nora (2020) regarding lieux de mémoire where objects and places are transformed into active

memory sites. These findings were augmented with ethnographic narratives where, in line with Middleton and Edwards (2019) who conceptualizes objects as intergenerational talks about objects of remembrance, participants cited heirlooms and ritual artefacts as providers of identity to the family and collective cohesion. The local comparisons also showed that, things can make a difference to communal memory in other than one way. To define themselves, diasporic societies were more concerned with heirlooms and urban societies were more concerned with streets, monuments and artwork. Conversely, community museums were highly controversial environments where memory was being contested and reconfigured, which explains why Bennett (2018) can argue that museums are cultural power spaces. These results are related to the conclusions of Alcock (2019), who focuses on the role of material ruins as a source of the establishment of the communal memory, and with the conclusions of Hoskins (2021), who focuses on the capacity of circulating artefacts to contribute to the formation of the multidimensional memories in the changing cultural contexts.

In order to determine the permanence of the collective memory practice, longitudinal findings were considered specifically in terms of the question of globalisation and digital mediation. This corresponds to Harrison (2019), who mentions the dynamism of legacy material depending on new constructions of meaning, and to Crane (2020), who speaks of multiplication and transformation of material memory in digital reproductions. This relates to the quantitative and qualitative strand to note that objects are not static artifact, dynamic mediators of culture that can retain cultural identity, but respond to changing political and technological circumstances.

CONCLUSION

The theme of this paper is as follows, material culture plays an important role in the development of collective memory in the sense of assisting people to identify themselves with their culture, to tell the story of their culture and to fight against change within the society. Quantitative analysis showed that temporal depth, sensory involvement and emotional resonance are useful predictors of memory strength. On the other hand, the qualitative studies showed that between the generations, the ritual, display or object based stories are not ceased. Regional comparisons found that the ways in which diasporic communities, neighbourhoods in cities, and community museums use items are as different as they are as important to the continuity of culture. Longitudinal study restored the assumption that in the context of globalisation and digitisation processes, material objects still have an affective, symbolic and social meaning that makes memory practices persistent. In most cases, the material culture may be considered as a symbolic and instrumental basis of conservation of the memory of the people. This relates to the issues of heritage preservation and community continuity and policy that targets cultural continuity. The work contributes to the anthropological and trans-disciplinary discussion of the active quality of objects in the construction of social memory and of how societies remember, restructure and reshape through material expressions of culture.

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