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Reappropriation of Centrality and the Reproduction of Relationality in Emerging Core Urban Spaces

An Analysis of the Resilience and Territorialisation of Place-Based Social Networks in the Pseudo-Public Space of the Malled Metropolitan Centres of Auckland, New Zealand, During COVID-19 Lockdown

Manfredo Manfredini [1, 2,*] Jennifer Jie Rong[1,] Franco Manai[1,] Luciana Rech[3,] Jacky Yongjie Ye[4]

[1]*School of Architecture and Planning, The University of Auckland, New Zealand*
[2] *School of Architecture and Urbanism, Hunan University, China*
[3] *Federal University of Santa Catarina, Brazil*
[4] *School of Computer Sciences, The University of Auckland, New Zealand*
[*]*Corresponding author. Email: m.manfredini@auckland.ac.nz*

ABSTRACT

COVID-19 restrictions have exacerbated the effects of an urbanisation mode that, through the combination of rampant neoliberalism, pervasive translocalism and ubiquitous digital transduction, has produced a fragmented and enclavic space with high spatial inequalities. Threatening to enhance these inequalities, centres of public life, as shopping and entertainment malls, are subject to an inexorable process of creative destruction determined by transnational capitalist logics. The system of distributed centrality of the modern shopping centre is further polarised by the ultra-modern mega-enclosures. The ultra-modern mega-enclosures introduce a participatory transductive experientialisation that supplants the scripted eventfulness of the modern shopping centre. This form of experientialisation integrates consumption and production to exploit free labour and further dispossess the public and private local entities of their asset ownership and control. However, this new form of consumerism, here defined as post-consumerism, also seems to support a countering agency of the individual prosumer by providing infrastructure and materials for autonomous reproduction of socio-spatial relationality. Yet, if the resilience of the networks of these countering processes is uncertain, their vulnerability and readiness to cope with sudden disruptive changes are unknown. An observational study on the effects of COVID-19 pandemic lockdown shed light on the hybrid actual–virtual realities that are strongly anchored in places with a high degree of participatory transductive experientialisation. Crowdsourced Instagram data from two case studies, a modern and an ultra-modern centre in Auckland, New Zealand, were comparatively analysed. Findings showed that during the period of closure, the networks of the ultra-modern centre maintained the sustained autonomous activity of the previous period, while those of the modern centre saw a sharp activity decline. This indicates a stronger resilience of the relational networks of the ultra-modern centre, here described as a place of superlative abstract civicness, suggesting a higher individual appropriation and association of its meta-stable spatialities, underpinning a critical affirmative interpretation of the post-consumerist urban condition.

Keywords: *Public Space and COVID-19, Shopping Centres, Spatial Data Analysis, Instagram, Auckland, New Zealand*

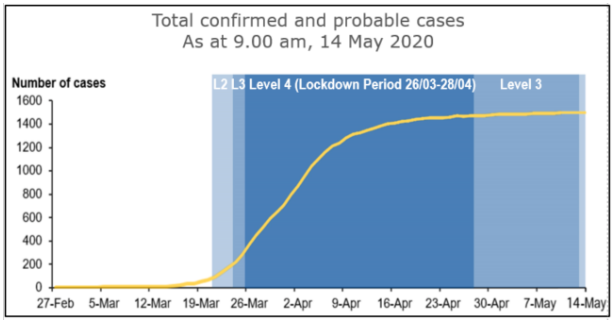
1. INTRODUCTION

1.1 New Zealand's COVID-19 response and the affected groups

The New Zealand response to the pandemic has been internationally recognised as one of the most effective for both its health and wellbeing results. Restrictive measures were based on a four-tier alert system framework whose highest level, *Eliminate*, introduced a strict lockdown at a very early stage (Figures 1 and 2). The lockdown resulted in a swift regression of the transmission rate, preventing a crisis of the health system, containing the number of fatalities and reducing the health impact of prolonged isolation periods (Ministry of Health Manatū Hauora, 2020b).

The strong priority given to supporting people's welfare, wages, income and health, which involved investments compared to GDP larger than most international economies, guaranteed high wellbeing standards to most New Zealanders (The Treasury Te Tai Ōhanga, 2020). This eventuated in a peculiar distribution of the infection among the population.

Substantially inverting the structural socio-economic inequalities in health of both the general health in the country (Wilson et al., 2018) and the specific COVID-19 disease in most countries with widespread diffusion, in New Zealand the most affected was the group of the privileged, according to the data of the Ministry of Health Manatū Hauora (2020a). Europeans, the ethnic group with the highest income, outnumbered by far all other ethnic groups combined (Stats NZ Tatauranga Aotearoa, 2020). Millennials in their 20s had the highest percentage of cases, at 23% (Ministry of Health Manatū Hauora, 2020a).



Figures 1 and 2. New Zealand coronavirus epidemic curve (Ministry of Health Manatū Hauora, 2020a).

1.2 Auckland's public space in ultra-modern enclosures of superlative abstract civicness

The geographical incidence of the infection has been uneven with the prevalence of urban areas and with a concentration in Auckland, the largest city in the country, accounting for 36% of the cases. As with other New Zealand cities, Auckland is characterised by a low and distributed population density where decades of neoliberal regime have weakened the urban commons, increased the geographical polarisation of socio-economic inequalities and created locally disconnected urban centres (Figures 3 and 4) dominated by large enclosures for shopping and entertainment of very different quality that concentrate the social infrastructures (Manfredini & Jenner, 2015).

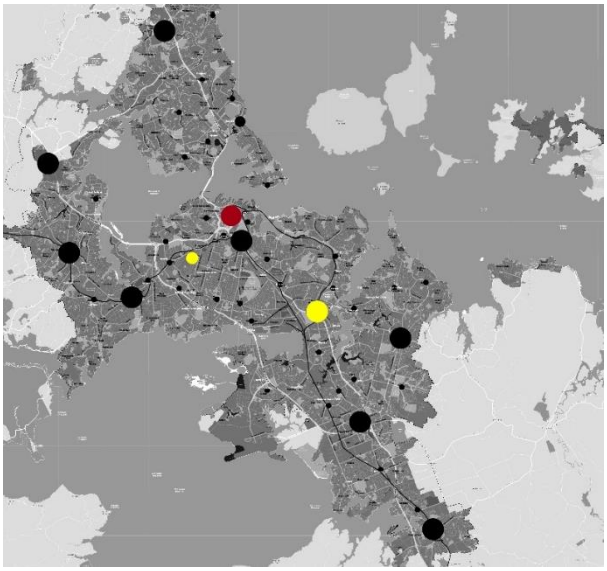


Figure 3. Auckland Plan 2050: Development Strategy—Existing Urban. Map showing the City Centre (red circle) and the nine Metropolitan Centres (others large black circles with Sylvia Park highlighted in yellow) and the town centres (small circles with St Lukes highlighted in yellow), (Auckland Council, 2012).

Figure 4. Sidewalk to "Erewhon" (nowhere): one abrupt interruprion of the pedestrian network on the main street of Sylvia Park Metropolitn Centre (M. Manfredini, 2020)

This urbanisation mode has progressively produced an enclavic fragmentation of the city (Shane, 2005) that geographically translates the concentration of power and wealth in the hands of few, often private transnational organisations. A prime example of civic commodification is Sylvia Park, one of the top 10 formally designated metropolitan centres of Auckland, whose area is entirely occupied by a single shopping mall owned and managed by the New Zealand's largest listed property fund (Figures 5 and 6). In recent years, the *malled* centres underwent a major systemic reset. Their leading retail sector is anticipated to face a process of creative destruction (Harvey, 2006; Ritzer, 2003) determined by the unrelenting market erosion by online retail that may lead to the outright disappearance of the shopping centres (Ritzer & Degli Espositi, 2020). This threat comes in the aftermath of the major reorganisation consequent to the advent of experience economy that has transformed these centres into eventful places of creative consumption (Manfredini & Jenner, 2015). A new 'spatial fix' (Harvey, 2012) to address this crisis is necessary to lure back and expand consumption flows into their spaces. The new economic model that requires this transforms the modern mall, focused on shopping and entertainment, into a different structure: the ultra-modern enclosure of comprehensive superlative abstract civicness (Manfredini, 2019b).

Figures 5 and 6. Auckland's Sylvia Park emerging malled Metropolitan Centre. Auckland Plan 2050 (Auckland Council, 2012); 2016 Auckland Unitary Plan and Building footprint map (Auckland Council, n.d.)

Figure 7. The Plaza, Dining Lane of Sylvia Park's ultra-modern enclosure

The ultra-modern enclosure fully accomplishes the task of commodifying the civic initiated by the modern mall by replacing and vigorously activating the entire social, communal, cultural and recreational infrastructures of the city. This includes not only public instituted structures, but also antagonist surrogate facilities of private domestic practices, particularly in the sectors of wellness, conviviality and children care (Manfredini, 2019a) (Figure 7). With the resulting comprehensive financialisation, displacement, abstracted experientialisation and simulation of urban infrastructures, the ultra-modern enclosure has exacerbated the effects of the neoliberalist structural intersection between capitalist forces and states. This amplifies social and civic disconnectedness, strengthens the marginalisation and displacement of antagonist and misaligned groups (Hubbard, 2004) and furthers the dispossession of the public and private local entities of their asset ownership and control (Harvey, 2019).

3. Post-consumerist hybrid public space in the digital age

Customers of the ultra-modern enclosure of superlative abstract civicness experience a new form of consumption. What emerges is a post-consumerist behaviour based on the combination of three digitally pervasive phenomena that foster reproduction of socio-spatial relationships: *prosumption*, *translocalisation* and *multiassociative transduction*. Prosumption expresses a form of participatory consumption that coalesces processes of production and consumption where prosumers consume what they partially or entirely produce (Ritzer, 2014; Ritzer & Jurgenson, 2010). Translocalisation is the constant redefinition of territorialisation patterns due to an increasing mobilization of people and things that reconfigures territorial patterns on all spatial scales, from the local to the global, with progressive temporal instability (Kazig et al., 2016). Multiassociative transduction is a transmutative operation that implies the coming together of heterogeneous forces that restructure given domains into metastable spatialities that become increasingly powerful due to the capacity of augmented and mixed realities to create fully immersive and intensely evenemential instances (MacKenzie, 2006).
These three digitally pervasive phenomena have implemented a reality–virtuality continuum that transforms the actual public space into a highly performative interconnected hybrid realm (Milgram et al., 1995). By embodying the digital sphere, the spatial augmentation opposes the segregational power of the enclosures and, particularly with the contribution of locative mobile applications such as Twitter, Instagram and Sina Weibo, grounds in place their space of flow and opens them to the political sphere. By enabling the simultaneous presence and action of local and remote actors, including the translocal, the marginalised and the antagonist, the augmentation importantly increases the relational capacity of individual and collective prosumers to independently appropriate and associate the otherwise abstracted territories of their daily life (Manfredini, 2017).

2. EMPIRICAL ANALYSIS OF DIGITAL PUBLIC SPACE DURING LOCKDOWN

Although certainly not devoid of elements of assimilation and complicity with the hegemonic logics of capital

reproduction (Miles, 2012), the spatialities of the ultra-modern enclosure provide individual prosumers with abundant elements that exceed the realm of exchange value of commodities. Pleasure and desire, basic materials for the elaboration of sign values (Miklitsch, 1998), foster reidentification processes both co-producing and co-produced by the extensive networks of relationality whose resilience is regulated by the interplay of disbanding translocal dynamics and assembling digital transductive interaction. Yet, if their capacity resists the domination agenda of the hegemonic powers countering the recolonization of their somehow liberated territories, their vulnerability and readiness to cope with sudden disruptive changes is unclear.

To shed light on such a vulnerability, an impromptu exploratory study was carried out on Auckland's crisis of public space during the COVID-19 pandemic. A structured observational study set out to investigate the digital relational behaviour in these centres during the lockdown period. It drew upon theoretical framework and methodology of the *Give Us Space* research project that explored usage issues of key semi-public spatialities in the metropolitan centres of the main New Zealand cities, and showed that digital relational life in the public sphere relies on networks strongly grounded in places of high public relevance (Manfredini et al., 2019).

Consistent with the discussion above, this study had three interconnected operating questions:

1) Was there a relevant difference between the activities of the digital relational networks situated in the two centres during their lockdown closure?

2) Does this difference indicate the affirmative public reception of the (pseudo)civic role of the centres introduced to creatively destroy the mall sector?

3) Did the activity during lockdown show evidence of independent socio-spatial reproduction with territorial association between users and the hybrid spatialities of the new centre resulting from the creative destruction process?

Data analysis and interpretation concentrated on the detection of relationships between different forms of interaction by dissecting their networks to identify their socio-spatial reproduction capacity. The study used the methodology and results of a previous research on digital space (Manfredini et al., 2019), which developed analytical tools to investigate network formation and spatial perception in hybrid actual–virtual spatialities using crowdsourced data from Instagram, the most popular geolocated visual-based social media (Statcounter, 2020).

The study areas of this project are Auckland's main urban centres representative of the two types: Kiwi Property Group's Sylvia Park Shopping Centre (hereafter Sylvia Park), the largest shopping mall in the country, opened in 2006 and constantly upgraded and expanded since, is the ultra-modern metropolitan centre of superlative abstract civicness *par excellence* in the Auckland's urbanity; Scentre Group's Westfield St Lukes Shopping Centre (hereafter St Lukes), a shopping mall opened in 1971 with a major redevelopment plan in the pipeline, is a good example of the modern town centre in Auckland. These two centres best represent the comprehensive spatial sublation of the COVID-19 lockdown, since the prohibition of moving from home unless for accessing essential businesses such as supermarkets, pharmacies and clinics (Ministry of Health Manatū Hauora, 2020c), affected most of the ordinary and extraordinary everyday practices of the large portion of the population that inhabits and gravitates around these central (semi)public spaces. Most importantly, these areas denote the highest instances of outright spatial negation, since nearly all of their squares, lanes, atria and corridors were heavily fenced and policed to prevent public access (Figures 8 and 9). Moreover, these areas are particularly relevant for the unique coincidence between their primary users and individuals most affected by the pandemic: the privileged, the young adults and the urbanites. Their visitors include the main users of the digital media services used for the analysis, people who massively turned to social media to maintain their networks after their face-to-face interaction was drastically interrupted by the sudden lockdown (Statcounter, 2020).

Figures 8 and 9. The "SEART Park" under the South Eastern Arterial motorway overpass and the Foodstuffs supermarket, the only large facility of Sylvia Park centre open during lockdown (J. J. Rong, 2020)

Collection of data involved Instagram's public posts of the location tags in the centres. As with many other social media platforms, Instagram's posts engage three participant types: author, commenter and liker. Information on each post was collected and categorised, as in the previous research (Bueno et al., 2019; Manfredini et al., 2019), by retrieving data of their ID (post URL, date and author's username), media (type and number of images and videos), caption (content of text and hashtag/s), comments (number and username of commenters and text of the comment), and likes (number and username of likers). Data were collected in two periods of equal length, the 33 days of the lockdown period (26th March to 27th April included) and the preceding 33 days (22th February to 25th March included), and compiled into MS Excel spreadsheets. The URLs were collected to enable quick access to posts at any stage during the analysis, as well as providing a base for further post information retrieval.

Data were collected from location tags of the centres following a preliminary analysis of their activity. Results showed that each centre includes multiple location tags with very different usage frequency. While many tags have low or moderate activity, one tag in each centre had users greatly outnumbering all the other users of that centre combined. The analysis also showed that most of the non-primary tags have one main single user, which is usually associated with local businesses, and a shared content polarised around a subject related to the commercial activity of the primary user. Overall, this preliminary analysis confirmed findings of previous research conducted on the same malls (Bueno et al., 2019; Manfredini et al., 2019), showing a positive correlation between location tags' popularity and three variables: descriptive efficiency, frequency and diversity of commercial activation. Descriptive efficiency refers to the degree of comprehensiveness and unambiguity of the hashtag name, which favours retrievability and recognition of the place amongst the public. The frequency and diversity of commercial activation of their domains refers to the intensity and variety of the spectrums of promoted products and services, recurring activities and special events, which sustain public interest and engagement. The analysis also showed that the proportion of commercial activity in the domains of the tags varies substantially. Most popular tags have a rather small percentage of commercial activity due to the high quantity of non-commercial activity. Most of the other tags have prevalent commercial activity. Given to these findings, the analysis was conducted only on the most popular location tag of each case study, respectively "Sylvia Park Shopping Centre" for Sylvia Park and "Westfield St Lukes" for St Lukes. The quantity of their interaction guaranteed their representativeness. The prevailing presence of non-commercial activity in their domains reduced the risk of inaccurate evaluation of the independent activity.

The analysis started with a data-cleaning phase that minimised non-autonomous, redundant and irregular interaction instances. Posts, comments and likes were analysed and coded to make it possible to exclude the irrelevant when needed. Regarding items of a commercially origin, recognition was carried out by triangulating information from different sources (username, visual content and caption often explicitly reveal their origin) and by analysing posting intensity and frequency (commercial activity tends to be numerically higher than average and uploaded with regularity). Particularly efficacious to verify findings was the access to previous activity of the Instagram account of the authors (accounts established for marketing purposes consistently pursue their commercial scope). Regarding redundant instances, the analysis detected multiple superfluous or vain data in protracted comment trails. This was addressed in the network analysis by using the number of commenters instead of that of comments. Irregularities in posts, likes and comments, such as duplications (reposting of visual content), was also identified and excluded. Abnormal posting, commenting and liking were not considered valid grounds for exclusion. This was the case of one post uploaded during the lockdown which received an exceptionally high number of likes but an average number of comments.

Commercially driven interaction, though not central to this study, provided relevant side information. Analysis showed significant differences between the two case studies. In Sylvia Park this kind of interaction displayed little activity during the pre-lockdown period and almost disappeared during lockdown period (it moved from 4.2% to 0.3% of the total interaction). In St Lukes it had high intensity during the pre-lockdown period (24.8% of the total interaction) but it substantially dropped during lockdown (3.8% of the total interaction). In Sylvia Park, there was no evidence of the commercial activity constantly generated by the central management at other times. In St Lukes, the prominence of commercial posts during pre-lockdown may be attributed to the larger marketing capacity of the management of the centre (its key owner has a portfolio with 42 centres compared to the 6 of the former), whose identified posts were responsible for the large part of the 474 commercially driven interactions generated over both periods. The variation in the proportions of this kind of interaction reflects the above-discussed difference between the modern and ultra-modern centres, confirming the strong consistency of the autonomous everyday practices with the designed ones.

The overall engagement analysis focused on distribution and differences between the number of interaction instances, constituted by the number of posts, the number of commenters and the number of likes. Only autonomous interaction activity consequent to identified non-commercial posts (i.e., excluding commercial posts and related comments and likes) was considered. Findings showed relevant differences in the performance of the two centres. Sylvia Park maintained a sustained intensity over both periods, with the overall autonomous daily activity instances moving from about 146 (4,808 in total) during pre-lockdown to 130 (4,296 in total) during lockdown. The moderate reduction in total interactions (-10.5%) resulted from a sharp decrease of primary communicative instances (-75.7% of posts) compensated by an increase of secondary instances (+124.7% of comments per post ratio and +281.1% of likes per post ratio). St Lukes had a comparably lower interaction intensity, with the overall autonomous

daily activity instances sharply decreasing from about 41 (1,367 in total) during pre-lockdown to 18 (606 in total) during lockdown. The sharp decrease in total interactions (-55.7%) resulted from a moderate-strong decrease of primary communicative instances (-66.7% of posts) and a weak response of secondary instances (-38.4% of comments per post and +43.2%) (Figure 10).

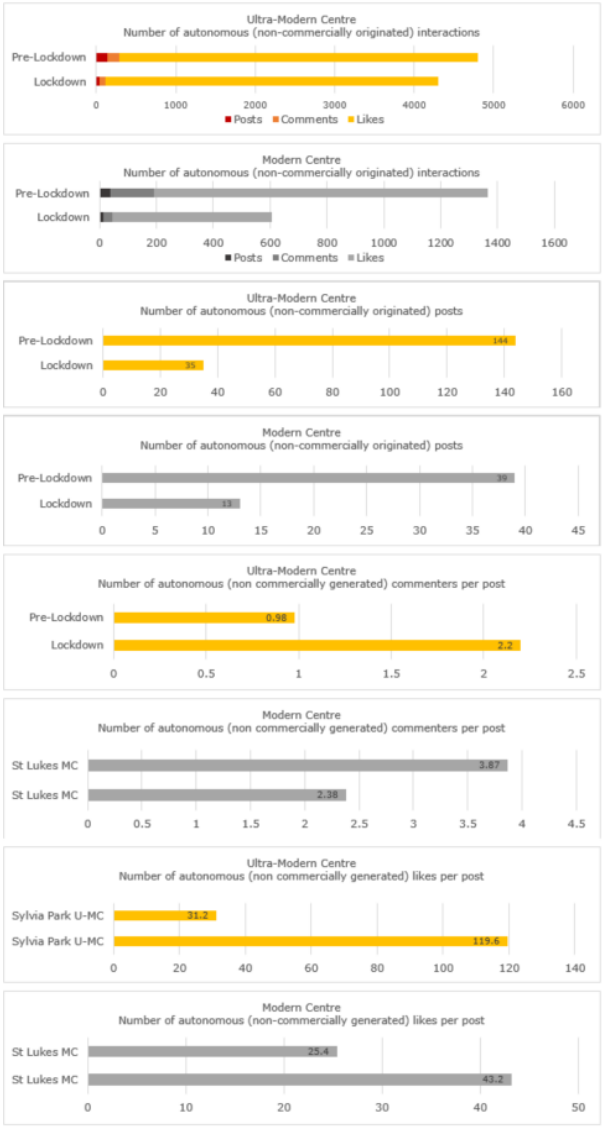
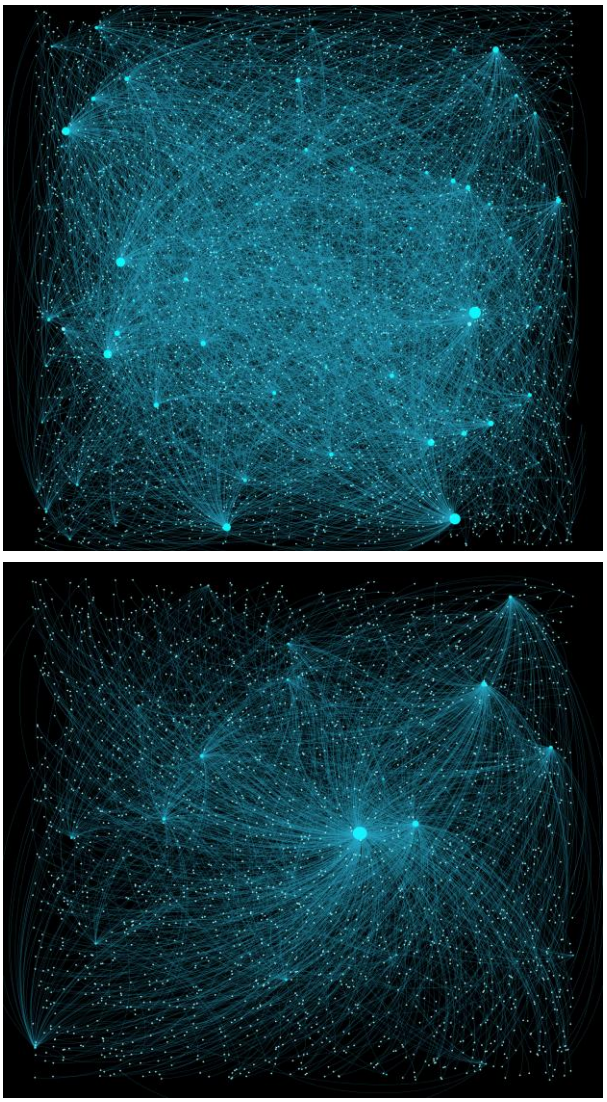


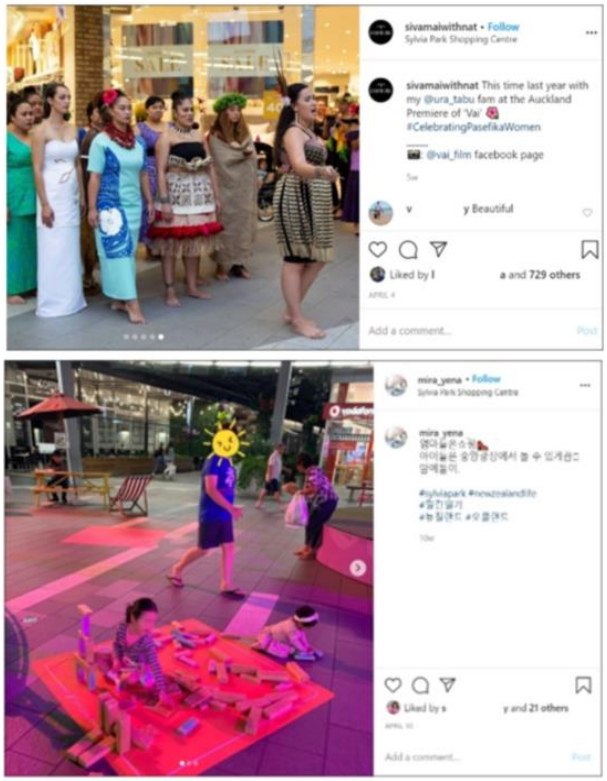
Figure 10. Charts visualising user interaction (crowdsourced Instagram data) during pre-lockdown and lockdown (J. J. Rong, J. Y. Ye and M. Manfredini, 2020)

The structure of the digital network was explored by addressing the relations between users. This analysis focused on Sylvia Park, as its novel set of urban spatialities requires in-depth analysis before progressing to comparison (it is worth noting that the limited quantity of data available for St Lukes would create problems of analytical reliability and validity). Individuals' role in the networks were investigated by analysing the relationship between them (i.e., the interaction links via comments or likes). The centrality of each user was estimated by assessing the intensity of interactions and the reach of their links. A visualisation of these patterns was obtained by plotting graphs that use nodes and edges as in previous research (Bueno et al., 2019). A node represents an Instagram user who is either an uploader, a commenter or a liker. An edge is the link connecting two nodes and indicating the relationship between them. This method required the formation of lists for nodes and edges. The node file was created with categories for ID number, label (username) and type (poster, commenter or liker). The edge file was arranged to include directions, with source and target associated with ID numbers. Sources are poster nodes, targets are either commenters or likers who have interacted with the post nodes. Both of them have individually assigned ID numbers. Different graphs displaying the total size of the networks were produced for the pre-lockdown and lockdown periods.



Figures 11 and 12. Diagrams visualising network centrality during pre-lockdown (top) and lockdown (bottom) (J. J. Rong, J. Y. Ye and M. Manfredini, 2020)

The network analysis enabled the detection of its centrality degree. In a bimodal network built upon nodes and edges, indication of centrality is determined by the number of immediate connections that associate the nodes (Bueno et al., 2019). As the data collection captured Instagram users in receiving and giving out comments and likes, the immediate links of a node could point towards or away from it. In this analysis, the centrality degree is measured in two different ways, indegree and outdegree centrality. The former represents the amount of connections directed to each node, while the latter corresponds to the number of connections departing from each of them. The graph uses size variations to represent change in the centrality value of each node (change in value is proportional to the change in size), adopts different colours to distinguish poster-nodes and liker/commenter-nodes, and displays the direction of connections using arrows. Findings show a strong difference between the pre-lockdown and lockdown structures and centrality patterns of the networks. As is visible in the graphs, the distribution of edges is relatively even in the former and strongly polarised in the latter. The strong polarisation in the lockdown map is determined by the limited number of sources which, consequently, have a much higher level of indegree centrality (Figures 11 and 12).



Figures 13 and 14. Sample of posts representing strongly associative moments with spatialities of the centre documented before the lockdown (sivamaiwithnat, 2020, left, and mira_yena, 2020, right).

The representational space analysis of visual content was conducted on Sylvia Park only, for the same reasons informing the centrality analysis, and primarily considered the lockdown period, to shed light on the nature of the spatial referentiality of the inaccessible spaces of the centre. Based on previously used methods (Manfredini et al., 2017), the data were used to detect representations of spatial instances that identify meaningful places of the centre. This involved triangulating information from different sources: images and videos, captions, comments, hashtags and, when necessary, previous activity on the Instagram account of the users. Spatially relevant posts were coded as such and further analysed to determine the most relevant characteristics of placeness based on their capacity to represent identifiable and meaningful material: social and cognitive spatialities of the site in its everyday becoming. Findings, compared with previous research (Manfredini et al., 2019), showed an unusually high prevalence of spatially relevant posts (83%) over the usually predominant generic content focused on goods and services provided by the centre, such as food, garments and personal care. Further analysis of the spatially relevant posts revealed another atypical characteristic: the outnumbering proportion (58.8%) of visual content originated from personal experiences of the centre produced before the lockdown rather than those produced during the lockdown. Most of these not only deliberately represented locally situated events, but moments of strong personal involvement with the context, when the centre had normal operations (Figures 13 and 14). The remaining spatially relevant content was chiefly composed of images, probably concurrently created and posted, representing highly identifiable spaces of the centre in the peculiar lockdown situation (the most common case being long queues of distanced people waiting to enter the only major open amenity, the supermarket, in the extensive corridor geared with unmistakable advertising boards).

3. DISCUSSION AND CONCLUSION

Notwithstanding the limited statistical validity of the results due to the multiple limitations of this study regarding data access and analytical articulation, the findings provided an affirmative answer to the first research question on the difference between the activities of the digital relational networks situated in the two centres during their lockdown closure. Evidence of the resilience of the relational networks grounded in the ultra-modern centre and of the crisis of those of the modern centre was found. The communities of the former showed a much higher resistance to the exacerbated fragmenting agency of the lockdown, which has interrupted their access and operations.

This evaluation of the results is strengthened by considerations related to the second question on the public reception of the (pseudo)civic role of the centres introduced to creatively destroy the mall sector. The different capacity to bounce back shown by the autonomous networks of the two centres indicates that the meta-stable spatialities of the ultra-modern centre support their vitality. The response to the combined agency of the key phenomena sustaining the disruptive abstracted civicness of the ultra-modern centre—

prosumption, translocalisation and multiassociative transduction—has generated sizeable counterspatialities in the digital public sphere. The decrease in primary communicative acts (i.e., the lowered number of posts, which is unquestionably consequent to the interrupted visitation) was compensated for by a very strong increase of their response ratios in both secondary levels of engagement (i.e., comments and likes). Conversely, in the modern centre, where the autonomous activity is intertwined with a much higher presence of commercial communication, the overall level of relationality reproduction strongly declined. Such a difference between the modern transactional (i.e., shopping-based) centre and the ultra-modern post-consumerist (i.e., pseudo-civic) centre seems also to obliterate the effects of the intrinsic inertia of consumers' daily practices in the changing scenario due to cultural lag. Consistent with the previous, the content analysis of the representational space in the ultra-modern centre provided evidence to affirmatively answer the third question regarding the territorial association between its users and spatialities. The large number of locally situated representations not only vastly outnumbers the proportion found in the previous longitudinal study on the same area, but it also articulates the associative capacity of desire by explicitly representing recombinant moments of appreciation and pleasure.

Overall, this study indicated that during the period in which the COVID 19 restrictions exacerbated the socio-spatial disruption of the modern urbanism the response of the emerging, autonomous, hybrid, networked relational practices of the meta-stable spatialities of the ultra-modern centres guaranteed continuity to their processes of socio-spatial reproduction of relations. This attests to the capacity of the progressively translocalised urban communities to defend their Right to the city (Harvey, 2008; Lefebvre, 1996) by deterritorialising and reterritorialising dispossessed centralities, and underpins a critical affirmative interpretation of the post-consumerist urban condition.

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