

Mapping the spatial distribution of public funding for arts, culture and heritage in South Africa: Mzansi's Golden Economy and the Cultural and Creative Industries

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Abstract

Although cultural mapping studies are growing in popularity, the use of geographic information systems (GIS) to analyse spatial data from multiple sources is relatively rare in cultural research. GIS maps have great potential as policy analysis tools because they can show relationships between variables in a visual way that can help to identify creative hotspots and comment on funding equity. This paper demonstrates how this can be done using data from the Mzansi Golden Economy (MGE) funding programme between 2015 and 2017. Findings show that, as expected, creative industries tend to cluster around larger cities, as does the allocation of public funding. However, some funding categories, such as the Provincial and National Flagships category, are much more geographically dispersed, and sometimes occur in areas where there is little other cultural activity, thus contributing to equitable cultural funding in South Africa. The data also shows that the CCIs and MGE funding allocations occur more frequently in areas with better socioeconomic status (measured by the percentage of households with income above the poverty line). Within metropolitan areas, CCIs and MGE funding is seen to cluster, especially around designated cultural quarters.

Keywords: Cultural and creative industries; funding; GIS, mapping, South Africa.

1. Introduction

The cultural and creative industries are increasingly being recognized for both their social and economic potential. A recent study by the South African Cultural Observatory (2018) found that the creative economy in South Africa accounts for 1.7% of GDP, and grew at an average annual rate of 4.9% between 2011 and 2016, compared to a 1.6% average growth rate for the whole economy. Cultural occupations accounted for 2.5% of all jobs in the economy in 2016 (Hadisi and Snowball, 2018).

One of the principles of sustainable development is the equitable distribution of public resources. In South Africa, this means balanced regional development, which requires distribution of funding across all nine provinces, and funding in rural areas and small towns, as well as metropolitan areas. Within cities, a balance between funding cultural activities in formerly white central business districts (CBDs) and townships is also important. Given the multicultural nature of South Africa, the distribution of funding is also linked to cultural diversity, and issues of social cohesion. Despite the growing interest in the spatial dimensions of cultural funding, there have been relatively few studies that have used mapping tools, specifically geographic information systems (GIS) to investigate them (Brennan-Horley *et al.* 2010).

The aim of this report is to examine the spatial distribution of public funding for the arts at a national level, using the Mzansi's Golden Economy (MGE) programme as an example. The analysis combines data from multiple sources with a view to making policy suggestions related to equitable geographic spread in terms of provinces, rural and urban areas, and metropolitan areas.

2. Spatial distribution of Arts and Culture funding

Feder and Katz-Gero (2015:91) state that “The patterns of government funding of arts organisations over time represent priorities driven by cultural policy”. South African cultural policy is currently still subject to the 1996 White Paper on Arts, Culture and Heritage. The White Paper (1996) put great emphasis on increasing access to culture for the black population who had been largely excluded from government funding and support during the Apartheid era. This involved reducing funding to the Provincial Arts Councils, who were allocated a significant proportion of public funding, and establishing the National Arts Council to diversify the genres that were funded, and open the space to previously excluded African cultural forms. Although the 1996 White Paper acknowledged the potential of the cultural and creative industries, the values it

focused on were mostly those related to identity formation, social cohesion and intrinsic artistic worth.

A recent paper by Bonet and Negrier (2018) suggest that there are four distinct cultural policy paradigms, each with different conceptions of what “participation” means. Internationally, cultural policy has tended to shift from exclusive ideas of “cultural excellence” towards “cultural democratisation”, which emphasises audience access, and “cultural democratisation”, which also includes amateur participation and has a strong focus on cultural diversity. In parallel to these paradigms is the “creative economy”, with its focus on the economic impact and creative industries, with participation being linked to consumption. South African cultural policy, and thus its funding focus, has also shifted from an exclusive cultural excellence approach towards a more inclusive, redistributive focus on wide, multicultural participation and access.

Following publication of the Cultural Industries Growth Strategy in 1998, however, culture was specifically linked with development and economic growth, and there was also an emphasis on its potential for rural development through poverty alleviation and investment in providing “skills and markets” to cultural entrepreneurs in rural areas. However, as the draft White Paper released in 2017 as a discussion document notes, “While large in scope and successful to a degree in that they reached the disadvantaged and empowered rural communities, especially women, the youth and people with disabilities, [these projects] nevertheless suffered from capacity-related and management challenges, leading to an inability to develop sustainable projects. The DAC’s research suggests that, unfortunately, the projects on the whole created a culture of dependency (White Paper, 2017).

This may be because the limited disposable income of many rural communities hampers the ability of rurally based cultural and creative industries from developing a local consumer base that can support them. De Beukelaer (2015), in his study of creative industries in Ghana and Burkina Faso, points out that these circumstances can lead to a “broken value chain” and the prevalence of “subsistence entrepreneurship” in the CCIs. Indeed, a South African study of the relationship between regional development and the presence of the CCIs in municipalities without large cities show that not all rural areas have the potential to harness the cultural industries for development (Drummond and Snowball, 2018). In these cases, publically funded arts and culture may be the only way for many rural populations to access the arts, since they are not able to be financially viable on their own.

It is well documented (Lazzeretti *et al*, 2010; Flew, 2010) that the cultural and creative industries (CCIs) tend to cluster around cities. One would therefore expect funding to also follow this trend to some extent. Porter (2000) defines a cluster as “a geographic concentration of interconnected companies...and institutions in a particular field that compete, but also co-operate”. Clusters can be an indication that a particular sector has a comparative advantage in that location, and can be more productive as a result of sharing specialist skills and innovation spillovers. Both internationally and in South Africa, cultural clusters have been identified as potential local or regional economic development drivers.

Feder and Katz-Gerro (2015) show some evidence that geographic location makes a difference to the amount and frequency of public funding to arts organisations. As suggested by Florida (2004), clustering of creative institutions, which usually occurs in cities, can be important contributors to the growth and job creation of the region in their own right, as well as attracting the highly educated and mobile “creative class”.

The Feder and Katz-Gero (2015) review of determinants of public spending on the arts shows that the international evidence is mixed, and has many variables. For example, left-wing governments may favour more geographically equal spending on culture because of their philosophy of redistribution, but demand for arts and culture may be higher in areas where levels of income and education are greater. Their findings showed that cultural institutions at the “center” were more likely to receive public funding, and received higher amounts of funding, than those on the “periphery”.

Evans (2016) argues that arts participation research has tended to focus on the demand side, without also linking supply – that is, the locational availability of arts and culture. He points out that most surveys on cultural participation have focused on the characteristics of individuals, “in an otherwise cultural production and spatial vacuum” (Evans, 2016:4). In his study of determinants of arts attendance in the UK, Evans (2016) shows that arts funding is still focused on national art institutions, mostly based in London, which has done little to enable access and build wider participation.

Geographic Information Systems (GIS) mapping is an ideal tool for the identification of CCI clusters and linking them to other development indicators and the spatial distribution of public arts funding. However, GIS analysis has not been used very often in CCI research to date, but is increasing in popularity.

An example of the use of GIS from the small Australian town of Darwin (Brennan-Horley *et al.*, 2010) shows how spatial data can be used to answer questions about how applicable national and international creative industry policy frameworks were locally, and to identify opportunities for creative sector transformation. The Darwin study asked questions of creative industries workers like, “Where do you go for creative inspiration?” and then overlaid this data on a physical map of the city to show how Darwin’s particular features can act as a catalyst for the development of the creative industries.

Hristova *et al.* (2018) used 5 years of information from the photo-sharing site, Flickr, on location and cultural content to construct a “cultural capital” index for neighbourhoods in New York and London. The index included a wide variety of cultural forms including festivals, exhibitions, performances and public art. Using GIS mapping, they then showed how cultural capital was related to economic capital, and the extent to which urban development can be explained by both. Their finding showed that those neighbourhoods that had experienced the greatest economic growth were also those that scored most highly on the cultural capital index.

At a national level, Bakhshi *et al.* (2015) used GIS to identify clusters of creative and high-tech companies in regions in the UK, with a special focus on the sub-regional distribution of employment in these sectors. Their findings show that creative and high-tech companies tend to “co-locate” (cluster), especially around London. Within London, some areas had much higher shares of creative employment than others. They conclude that this kind of analysis can be used to design policy that investigates (and encourages) knowledge spillovers between related sectors (such as the creative and high-tech industries).

In South Africa, GIS mapping has been used to show the relationship between the presence of CCIs and socio-economic status households in municipalities without large cities (Drummond and Snowball, 2018). Using the Sarah Baartman District in the Eastern Cape as a case study, the research found that, even in more rural areas, there was a positive relationship between the location of CCI clusters and the welfare of residents (measured using municipal socio-economic data from Statistics South Africa). However, it was also shown that not all small towns can support cultural industries, and it is suggested that a certain threshold level of development is needed for CCI clusters to form.

Another recent paper by Gregory and Rogerson (2018) explores the location of creative industries within Johannesburg. Rather than the expected result,

which was that CCIs would be clustered in the inner city, they find that the majority of them are located outside of the city center in the suburbs. They also find evidence of clustering of particular sectors within the CCIs in the suburbs, such as the “new media” category being most heavily concentrated in Sandton. This study thus adds to the relatively small body of work using GIS in the study of the cultural and creative industries, with a special focus on how it can be used to analyse public arts funding.

3. Context: Mzansi’s Golden Economy (MGE) funding

The South African Department of Arts and Culture (DAC) funds a wide variety of arts, culture and heritage initiatives under the Mzansi’s Golden Economy (MGE) programme. MGE’s objectives are:

- To stimulate demand in arts and culture
- Audience development and consumption
- Building heritage resources
- Information gathering
- Human capital development
- Developing cultural entrepreneurs.

(Mzansi’s Golden Economy (MGE) Guidelines: Criteria, Eligibility, Processes & Systems 2015/2016 – 2016/2017 version 1.0).

Eligible projects are divided into five main categories: National and Provincial Flagship Events; Festivals and Events; Touring Ventures; Public Art Programmes and Miscellaneous Art Projects. Each programme has somewhat different aims and funding criteria, discussed further below.

An examination of the national Department of Arts and Culture budget from 2011/12 to 2016/17 shows that it has increased in nominal terms from R2.5b in 2011/12 to just over R4b in 2016/17 (an average growth rate of 10.7% per year). In real terms (using the CPI to express all amounts in the prices of 2011), the DAC budget has still increased, but at an average of 2.5% per year, with a drop of nearly 7% in the 2016/17 period. The DAC budget has four Programmes: 1. Administration; 2. Institutional Governance; 3. Arts and Culture Promotion and Development; and 4. Heritage Promotion and Development. By far the largest spending category is Heritage Promotion and Development, which accounts for an average of 56% of the budget between 2011/12 and 2016/17. The second largest category is Programme 3 (an average of 31% of the budget between

2011/12 and 2016/17), which includes the MGE programme within the category “Cultural and Creative Industries Development”.

Within Programme 3 are the funding agencies, such as the National Film and Video Foundation, the National Arts Council and other Performing Arts Institutions, as well as language services and the Language Board, which made up more than 75% of this funding category in 2011/12. From 2013/14 on, however, the CCI Development category (which includes the MGE funding programme) made up a larger and larger proportion of Programme 3 spending, so that by 2015/16, it accounts for nearly 35% of spending. In nominal terms, this reflects an increase from R175.8m in 2011/12 to R338.2m in 2015/16. While it is acknowledged that funding for arts, culture and heritage is also provided in many other ways, such as through the Lottery, the Provincial Departments of Sport, Art, Culture and Recreation, and private sponsors, the MGE funding stream is becoming a much more important funding source in South Africa.

3.1. Combining cultural and socio-economic data using GIS

The MGE funding data used in this study was obtained from MGE programme directors at the Department of Arts and Culture (DAC), as part of a larger scale research project on the impact of the MGE programme (Kamilla-SA, commissioned by SACO for the DAC, 2018). The data was cleaned and normalized, and Google Earth was used to identify the coordinates of each funding recipient. QGIS (Quantum Geographic Information Systems) was the mapping software used to create the spatial data, giving the recipients a geolocation on the map. The data was then combined with other spatial data such as municipal and provincial borders and Google Earth imagery to create maps. Spatial analysis of the MGE funding recipients was done using shapefiles with attribute data such as annual household income figures from the Statistics South Africa Census 2011, and re-coded data from a previous Department of Arts and Culture (DAC, 2014) study on CCIs in South Africa.

Despite careful research and analysis, the study has some limitations, which are acknowledged here. Firstly, not all the funding could be spatially classified because the details of the organization or event that had received the funding were not always specific enough to determine where they were located. Of the total of 384 MGE funding recipients, 54% (206) were spatially located. Some of the Touring Ventures that received MGE funding were located, but the grant was for travel outside of South Africa, so they are not included in the map. The funding recipients included in the analysis represented 58% of MGE funding

over the three years of the study (2014/15; 2015/16 and 2016/17). The national census is only done every 10 years and the last one was done in 2011. As a result, the annual household income data may be slightly outdated, but it gives an indication of what the relationship between MGE funded events and annual household income is.

TABLE 1: BREAKDOWN OF MGE FUNDED EVENTS INCLUDED IN THE ANALYSIS

Category	No. of events	MGE Funding	% MGE Funding
Festivals and Events	82	R49 654 000,00	35,62%
Flagship Events	23	R60 337 065,00	43,28%
Miscellaneous and Community Arts	33	R14 355 000,00	10,30%
Public Art	17	R5 319 500,00	3,82%
Touring Ventures	35	R9 738 633,00	6,99%
Grand Total	190	R139 404 198,00	100,00%

As shown in Table 1, the largest MGE category of those recipients included in this analysis was Festivals and Events, which made up 43% of the sample (82 observations), and accounted for 36% of MGE funding (R49.6m) in the study period. Although Flagship Events made up only 12% of the sample (23 events), the way they are funded (further details provided below) meant that they accounted for 43% of the MGE funding (R60.3m). This was followed by Touring Ventures, Public Art and Miscellaneous and Community Arts.

The research was specifically focused on MGE funding over the last three years. Of course, cultural activity is funded from a wide variety of both public and private sources, such as national funding bodies, like the National Arts Council, provincial, district and municipal government funding, as well as private sponsors, which are not included here. In addition to showing the distribution of MGE funded events and activities, a strength of GIS mapping is that it can be used to show how the distribution of MGE funding is related to other socio-economic variables, such as population density, household income in different areas, and economic activity (cities and more rural areas).

The number of MGE funded projects in a particular area can be an indicator of cultural activity or cultural vibrancy, and may point towards, or link to existing cultural clusters. The amount of funding (size of the grants) gives some idea of the financial resources available from MGE funding in a particular area. The study thus also analyses the spatial distribution of MGE funding amounts,

and incorporates information from a previous Cultural and Creative Industries mapping study to identify cultural clusters.

4. Mapping cultural vibrancy, cultural resources and cultural clusters

Results are divided into three broad areas, illustrated by examples of the maps produced (the full report is available on the South African Cultural Observatory website):

- *Cultural vibrancy*: These maps show the spatial distribution of the number of beneficiaries by MGE funding category and all funding categories together;
- *Cultural resources*: These maps show the spatial distribution of the amount of MGE funding, and take into account the population density (MGE funding per person) of the country, as well as household socio-economic status (percentage of the population living below the poverty line);
- *Cultural clusters*: These maps analyse the spatial distribution of the number of MGE funded activities with specific reference to factors including: Metropolitan areas compared to areas outside of the metros, distribution of funding within selected metros, and the alignment of MGE funded events with the presence of cultural and creative industries.

5.1. Cultural vibrancy

Festivals and Events are the largest category (in terms of the number of events funded). The MGE Festivals and Events Grant Programme aims to help local organisations host a wide range of arts and cultural events, which are intended to increase audience exposure and provide more opportunities for South African artists to showcase their work. MGE funded Festivals and Events have a wide geographical distribution (Map 1), with at least one festival or event in each province. As expected, there is some clustering around larger cities (Johannesburg and Cape Town), but with a number of events funded in more rural provinces as well (for example in the Eastern Cape and Limpopo).

MAP 1: MGE FUNDED FESTIVALS AND EVENTS



MAP 2: MGE FUNDED NATIONAL AND PROVINCIAL FLAGSHIP EVENTS



National and Provincial Flagship events are funded at a higher level, and in the case of National Flagships, on a longer-term basis (3-year funding cycle) than other festivals and events. Each province nominates up to two Provincial flagships, while National Flagships are identified and funded by DAC. The aims of this work stream are similar to other festivals and events: upscaling existing events and/or founding new ones; contributing to economic growth and job creation; building social cohesion; audience development; and showcasing artists. However, in addition, they are expected to have some regional impact in terms of tourism and cultural development – on the province in the case of Provincial Flagships, and on the country as a whole in the case of National Flagships (DAC, 2016).

Provincial and National Flagships thus automatically have a good distribution in each province (Map 2), even in those areas where there is little other MGE funded cultural activity (such as the Northern Cape). There is a significantly high number of Flagships in Gauteng Province. The Western Cape is somewhat under-represented for its size (it has four Flagships based mostly around Cape Town), even compared to the Eastern Cape Province (which has five Flagships, quite dispersed, along the coast in bigger cities, such as Port Elizabeth and East London). In both Gauteng and the Western Cape, Flagships are concentrated around the metropolitan areas.

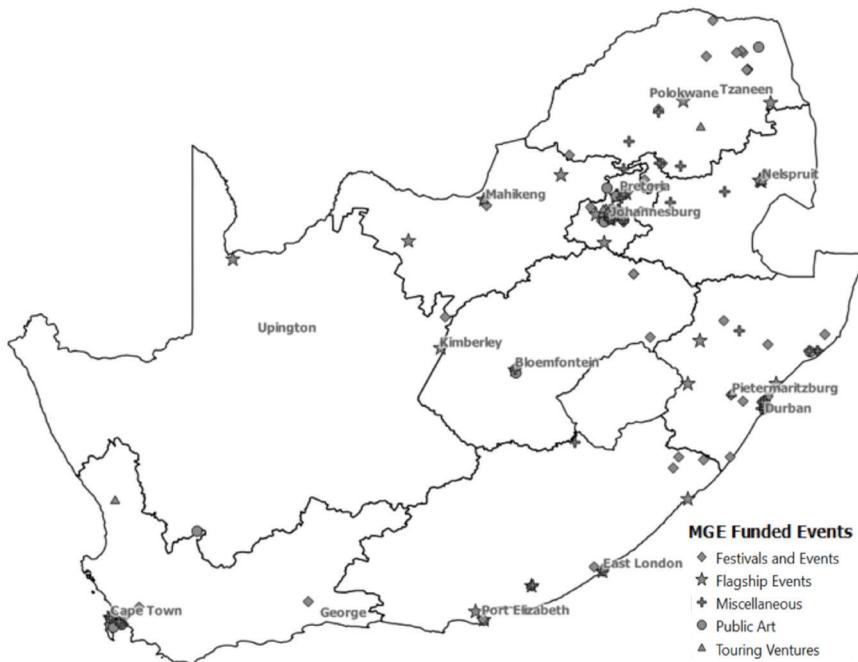
Funding in the Miscellaneous and Community Arts category was mostly related to once-off cultural events / activities at Community Arts Centres, including training, education programmes and workshops. The projects in this category need to fulfil MGE objectives, but are not covered by the other four MGE work streams. Projects funded in this category have good spatial distribution, with at least one event funded in each province, and events funded both around larger cities and in areas that are more rural. However, there is significant concentration in the north of the country especially Gauteng and Limpopo provinces, followed by KwaZulu-Natal.

MGE Public Arts events and activities included mostly visual arts and exhibitions displayed in public spaces. Like the other MGE work streams, this programme aims to increase audience access as well as to develop the skills, and display the work of, South African artists. It also has a specific spatial development mandate related to improving community well-being and health. As such, applications from non-metro areas are specifically encouraged (DAC, 2016).

Of the 39 MGE grants made in this category in the three-year study period, geographical data was available for 46%. Most grants were given in Gauteng Province, followed by the Western Cape (concentrated around Cape Town). It thus appears that, while this funding category is achieving some of the MGE aims, it is not managing to fund as many rural and small town projects as the aims envisage. In addition to the MGE goals of fostering social cohesion, economic growth, job creation, audience education and showcasing artists, funding for Touring Ventures aims specifically to “support wider, cost-effective opportunities for the nation’s cultural outputs to be viewed, observed and enjoyed around the country and beyond”.

A challenge in mapping this category of funding is that the destination of travel could not always be determined, only the location of the office of the applicant organisation, or vice versa. So while some touring ventures were located, they were mapped outside of South Africa, as the destination was known but not the point of origin within South Africa of those travelling. In addition, a particularly large number of the recipients who received MGE funding in this category could not be spatially located (81 recipients), making this part of the analysis less reliable. For those events where the location within South Africa could be determined, they were focused around metros, especially in Gauteng.

MAP 3: CULTURAL VIBRANCY – MGE FUNDING IN ALL CATEGORIES

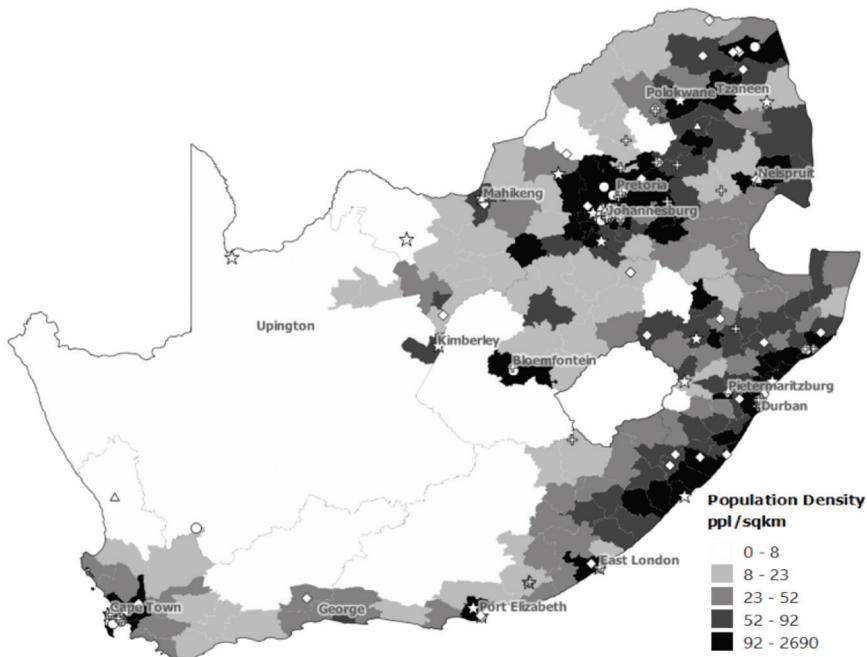


Excluding Provincial and National Flagships, MGE funded events and activities are quite concentrated in provinces with bigger cities, such as Gauteng (very dominant), Western Cape (around Cape Town) and KwaZulu-Natal (somewhat more dispersed). In provinces where there is not one dominant metropolitan area, MGE funded activity is somewhat more dispersed, for example in the Eastern Cape, Limpopo, and even, to some extent, KwaZulu-Natal. Including the Flagships improves the spatial distribution of MGE funding quite considerably.

5.2. Cultural resources

It is acknowledged that MGE funding makes up only a part of funding available for cultural events and activities in South Africa, and that many other funding sources, both public and private, are available. Nevertheless, the MGE programme does disburse large amounts of funding, and as such can be considered one of the most important sources of cultural funding in South Africa. The spatial distribution of MGE funds can be a useful indicator of an important part of public funds for culture, and as a way of encouraging balanced regional development.

MAP 4: POPULATION DENSITY PER MUNICIPALITY



Map 4 shows the relationship between population density and MGE funded events in the sample. What is immediately apparent is that areas with higher population density (shown as darker areas) are also those with a higher number of MGE funded events. For areas with very low population density, the exceptions are the Flagship Festivals and Events. This result shows that, for the most part, MGE funded events occur in more highly populated areas, which makes sense from the point of view of reaching the most people as audiences and producers. However, areas with lower population density still do receive some MGE support, like Makana Municipality, which hosts a National Flagship Event, the National Arts Festival, and the Grahamstown Creative Cities Project in the Eastern Cape.

TABLE 2: BREAKDOWN OF MGE FUNDING RECIPIENTS BY PROVINCE

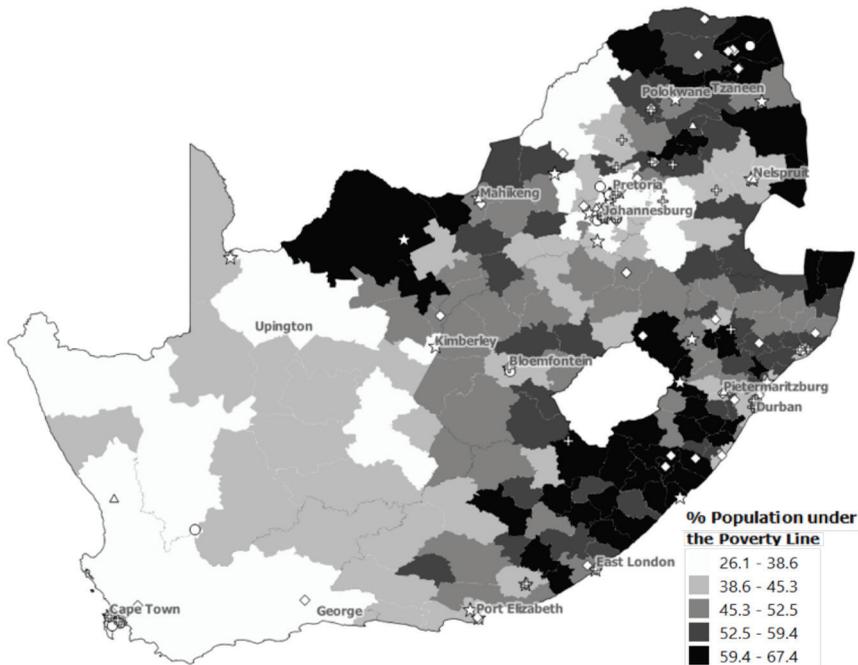
Province	No. of Recipients	MGE Funding	MGE Funding Received per person
Eastern Cape	16	R19 050 000,00	R3,62
Free State	10	R6 290 000,00	R3,26
Gauteng	74	R49 188 103,00	R5,59
KwaZulu-Natal	25	R12 974 625,00	R4,48
Limpopo	19	R12 689 970,00	R4,38
Mpumalanga	7	R4 370 000,00	R1,31
North West	4	R5 000 000,00	R2,10
Northern Cape	5	R5 350 000,00	R7,50
Western Cape	30	R24 491 500,00	R16,84
Grand Total	190	R139 404 198,00	

One can also examine equality in the amount of public funding per person by province. This is calculated by dividing the total MGE funding granted to the province by the population of the province. Table 2 shows that although Gauteng province hosts the greatest number of MGE funded events, the Western Cape receives the highest amount of MGE funding per person. Another surprise is that although the Northern Cape hosts a very small number of MGE funded events, because it has such low population density, it is actually quite generously funded on a per person basis. Provinces that receive the lowest MGE funding amount per person are North West and Mpumalanga, followed by the Eastern Cape and the Free State.

Map 5 shows MGE funded events in relation to the percentage of the population in each municipality that is under the poverty line (as indicated by

the Statistics South Africa 2011 Census data). The darker the area, the larger is the percentage of people who are regarded as very poor. What the analysis shows is that, although MGE events do tend to be in areas with fewer very poor households (lighter areas on the map), there is a considerable spread of MGE funded events in the very poor municipalities as well, especially in Limpopo province, the Eastern Cape and KwaZulu-Natal. Thus, while it may be true that private funding for culture is concentrated in wealthier areas, the MGE component of public funding is more evenly spread.

MAP 5: PERCENTAGE OF POPULATION UNDER THE POVERTY LINE



Assuming that those funding recipients that could not be spatially located are not clustered in any one particular area, and so would not substantially change the picture of spatial distribution, possible policy suggestions would be to encourage more MGE applications from, and to prioritise funding to, provinces with lower per capita funding. However, the overall impression from this analysis is one of relatively well distributed cultural resources, which take into account areas with higher population density where funding would benefit most people, but also considers more rural areas, and quite a high proportion of funding to poorer municipalities. in the labour market, cultural background and stereotypes.

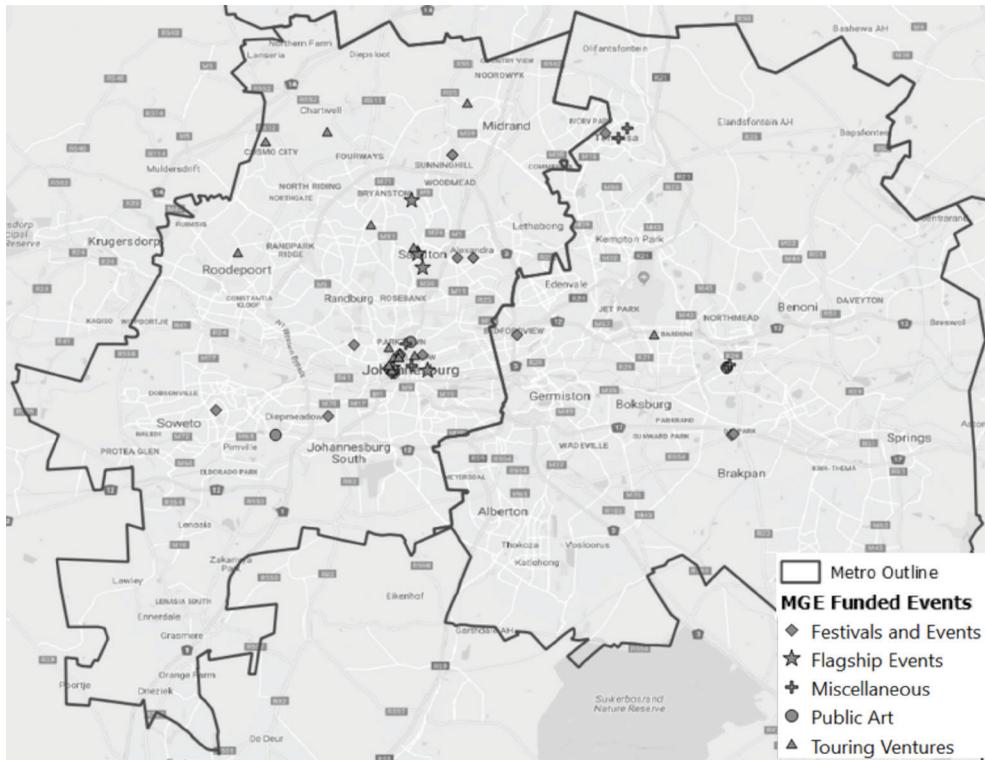
5.3. Cultural clusters and MGE funding

For all funded activity, within Provinces, there is significant clustering around cities. For example, in the Western Cape, there is very little MGE funded activity outside of Cape Town, even with Flagship Events included. While cultural clustering around cities is an international phenomenon and makes sense in terms of access to audiences and artists, it does tend to exclude areas with smaller towns and cities. In some provinces, such as the Western Cape and Gauteng, excluding MGE funded events in the metros dramatically reduces events in the province. It is noteworthy that, in Limpopo Province, there is a much more even spread of MGE funded cultural activity, perhaps because there is no one, dominant metropolitan area.

In terms of developing effective regional cultural policy, it may be important to consider how to spread the benefits of public funding to areas outside of the metros, perhaps by encouraging applicants from within the metros to collaborate with organisations located outside of the large cities. It should be noted however, that if the destinations of MGE funded Touring Ventures (which may have included taking cultural events to rural areas) could have been mapped, the picture may have looked more evenly distributed.

GIS maps can also be used to show the details of MGE funded events within metropolitan areas in South Africa, as Map 6 of Johannesburg and Ekurhuleni shows. Even within the metros, it is interesting that MGE funded cultural activity is quite tightly clustered. This phenomenon has been observed in other countries, and has led to the creation and encouragement of “cultural quarters” within cities. This is also the case in South Africa, with the development of the “Cultural Arc” in Newtown, Johannesburg, as a source of urban inner-city regeneration (Pieterse and Gurney, 2012). The Cultural Arc includes already-established artistic institutions and spaces, as well as a university. It was also the site with a rich historical heritage related to apartheid resistance. Cape Town and eThekweni show clustering at the waterfronts.

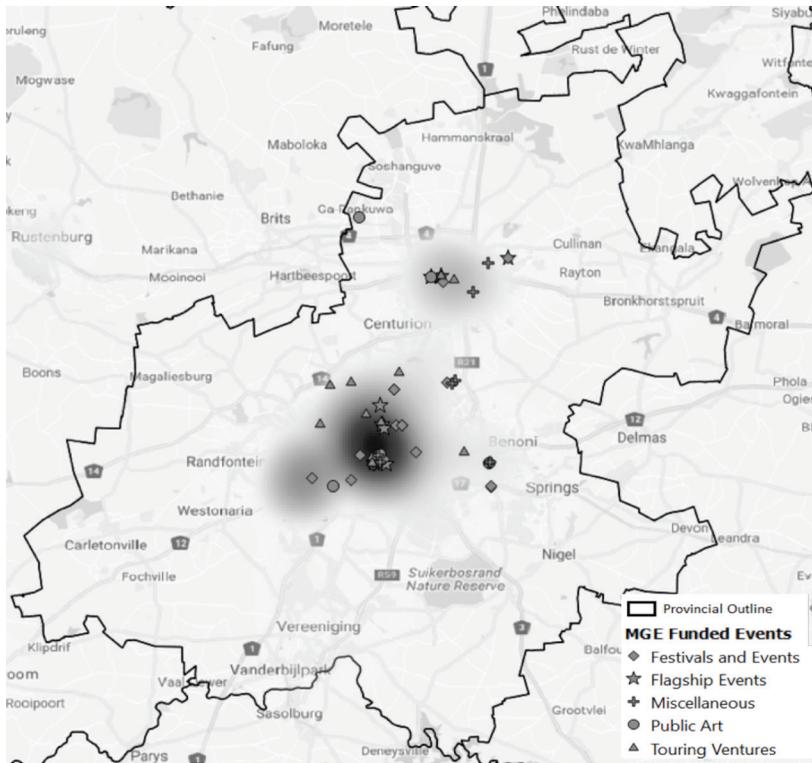
MAP 6: MGE FUNDED EVENTS IN JOHANNESBURG AND EKURHULENI



A good validity test for any research is to use multiple data sources for triangulation. In 2013, the South African Department of Arts and Culture (DAC) commissioned a study of the CCIs in South Africa. The method followed, consisted of two phases: (i) The construction of a CCI database and (ii) Interviews (face to face and telephonically) with a sample of 2 477 randomly selected CCIs. After extensive data checking and cleaning, the sample of CCIs that were contacted were mapped using GIS, where the data was used to create a heat map to show areas where the number of CCIs is largest as darker (hotter) spots on the map.

What the heat map analysis showed is that, at a national level, those areas that have the largest number of cultural and creative industries as measured by the DAC (2014) mapping study, are also those with clusters of MGE funded events. The CCI clusters occur around the larger metropolitan areas. It is again interesting to note that many of the Flagship festivals and events fall outside of these areas.

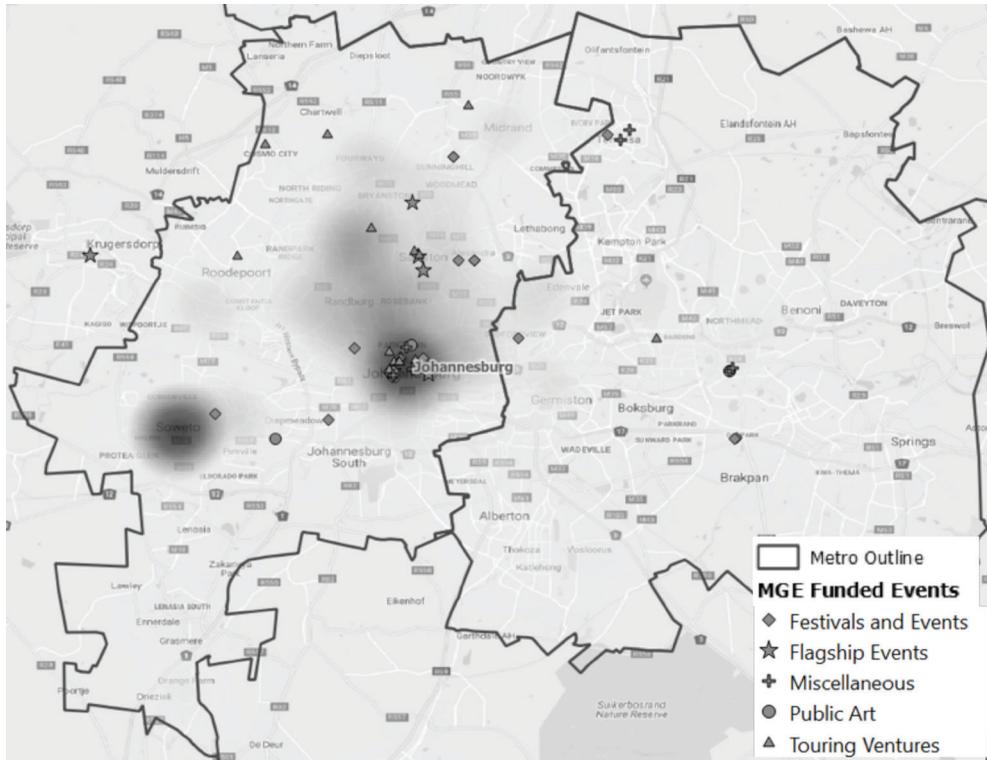
MAP 7: HEAT MAP SHOWING CLUSTERS OF CCIS AND THEIR RELATIONSHIP TO MGE FUNDED EVENTS IN GAUTENG



As an example of how this analysis can be applied at provincial level, heat maps for Gauteng and for Johannesburg and Ekurhuleni were also created. The Gauteng map (Map 7) shows a clear alignment of MGE funded event frequency with areas where there are more CCIs.

The heat map of Johannesburg and Ekurhuleni shows a slightly different picture (Map 8): While there is clear alignment between a CCI “hot spot” and MGE funded events near the centre of Johannesburg, there is also a CCI cluster identified in Soweto, which does not have MGE funded events clustered around it. A policy implication of this finding could be that, at a municipal level, CCI hotspots that are not currently associated with much MGE funding could be targeted for information days or roadshows to increase MGE funding applications from these areas, which clearly have CCI activity and potential for development. In general, what the heat map analysis indicates is that MGE funding is well aligned with those areas where CCI clusters are known to exist and have already been mapped, which is what one would expect: more applications from areas where there is more CCI activity.

MAP 8: HEAT MAP SHOWING CLUSTERS OF CCT'S AND THEIR RELATIONSHIP TO MGE FUNDED EVENTS IN JOHANNESBURG AND EKURHULENI



5. Conclusions and policy suggestions

Although cultural mapping studies are growing in popularity, the use of geographic information systems (GIS) to analyse spatial data from multiple sources is relatively rare in cultural research. GIS maps have great potential as policy analysis tools, because they can show relationships between variables in a visual way that can help to identify creative hotspots and to comment on funding equity.

This paper demonstrates how this can be done using data from the Mzansi Golden Economy (MGE) funding programme (Department of Arts and Culture) on the number of applicants who received funding, and the amount of funding received between 2015 and 2017; population density and household economic status from Statistics South Africa; and a database of cultural and creative industries (CCIs) in South Africa. An acknowledged limitation of the research is that only about half of the MGE funding recipients in the three years of the study could be spatially located within South Africa. One of the recommendations

from the study is that a knowledge management system for MGE funded events should include more exact locational data, which would enable further analysis of funding patterns as an aid to equitable decision-making.

Findings showed that, as expected, MGE funded cultural events and activities tend to cluster around metropolitan areas and larger cities, which is equitable in terms of population density and linked to the goal of economic growth and job creation. To improve funding to more rural areas, DAC could encourage MGE funded projects in cities and metros to partner with cultural producers in more rural areas, as well as encouraging more applications from rural areas themselves. However, the overall picture from the analysis of Cultural Resources is of well distributed funding, which takes into account areas with higher population density where funding would benefit most people, but also does include more rural areas, as well as providing quite a high proportion of funding to poorer municipalities.

Mostly, areas with higher population density are those with more MGE funded events. This makes sense in terms of demand and participation, which depend on having a large enough target market, and in terms of access to suppliers and artists.

There is some concentration of MGE funded events in the northern parts of the country in what appear to be (in terms of numbers) culturally vibrant areas. In particular, Limpopo has a wide variety of diverse and geographically spread MGE funded projects, even though (or because of) the absence of a dominant metropolitan area. A suggestion for further research would be to explore what has contributed to Limpopo's success and how it could be applied in other provinces.

In the Western Cape, although MGE funding per person is at a high level, MGE funding recipients are highly concentrated around Cape Town, with almost no other MGE funded projects in the rest of the province. While this aligns with the spatial location of other cultural and creative industries, a policy suggestion could be to encourage and prioritise applications from areas outside the metro in order to improve equity and/or encourage MGE applicants in the metro to partner with co-applicants from the rest of the province.

Areas that have been designated as sites for cultural development, such as Newtown in Johannesburg, and the Grahamstown Creative City project, do have a higher density of MGE funded projects supporting them. Cultural funding internationally is paying more attention to funding spatially organized cultural quarters, cultural cities and cultural clusters, which have been shown to be more effective in encouraging growth and development than stand-alone projects.

A policy suggestion could be that, in calling for MGE funding applications, applicants could be encouraged to link themselves to a cultural cluster or quarter by giving priority (or additional funding) to these applications. Alternatively, MGE funding could be provided to a group of clustered applicants, rather than to individual events.

National and Provincial Flagships improve funding distribution significantly, occurring in areas where there is otherwise little other MGE funded cultural activity, or the presence of other CCIs, sometimes in very impoverished areas of the county. While funding to culturally vibrant areas in metropolitan areas with high population density makes sense from an economic point of view, cultural funding to more rural, poorer areas is important from an equity and development perspective. A policy suggestion following on from this finding is the continuation of the Flagship programme, with possible extensions, such as allowing nomination of more Provincial Flagships in under-represented provinces.

Biographical notes

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