

Development process of geotourism in the Kanawinka Region in the context of the Australian geopark movement

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Abstract

This study explains the development process of geotourism in the Kanawinka Region by analysing the relationship between the Australian geopark movement and the tourism development efforts of the region. The Kanawinka Region is generally recognized as only minor tourist destination and has attempted to increase tourism development by implementing geotourism with a discovery trail comprising a variety of volcanic landscapes. This region is unique in that it practices geotourism systematically, through collaboration between industry, government, and citizens. After the restructuring the national geopark, the Kanawinka Geopark Board intends to implement new geotourism attractions such as field science by establishing renewed networks between academia as well as industry, government and citizens. Accordingly, the Kanawinka Region has been in the progress of change into the local-oriented geopark movement and a variety of students have been there to experience the field science through practicing geotourism. Thus it can be pointed out that implementing geotourism has been regarded as not just a meaning of the tourism development but the provision of novel education opportunity in the context of the geopark movement.

Key words: Australia, geotourism, geopark movement, organisational management, tourism development

1. Introduction

Recently, researchers have increased their discussions of geodiversity and geoheritage, focusing on ecosystems and on the geological and geomorphological features of particular locations (Gray 2008). As a result, sustainable tourism through geotourism has been developing worldwide (Kikuchi *et al.* 2011; Dowling and Newsome 2005). Kikuchi and Arima (2011) have surveyed the existing research and identified the following three elements of geotourism: the conservation of geosites, the educational use of geosites, and sustainable development. Dowling (2011) considers geotourism the new paradigm of sustainable tourism and recognises that regional development can be advanced through geotourism. Geopark is a site of geoheritage with scientific value, having characteristics such as

unique landscape or landforms. These sites operate under the guidelines of the Global Geoparks Network (simply, GGN) supported by UNESCO (Kikuchi *et al.* 2011). Geopark aims not only to conserve and preserve earth heritage, while supporting the teaching of geoscientific disciplines, but also to contribute to sustainable regional development through geotourism (Dowling and Newsome 2005).

Geographical studies of geotourism and geopark are categorised by research perspective into three main types: those that focus on the definition of terms (Farsani *et al.* 2011; Hose 1995; 1996; 2000; Iwamatsu and Hoshino 2005; Joyce 2010a; Mokudai 2009; Yokoyama 2008; 2010; Watanabe 2008; 2009); those comprising research reports (Kohmoto 2014; Lewis 2010; Pforr and Megerle 2005; Zouros 2010), and those on possibility to have a chance of certifying geopark (Amano *et al.* 2011; Calnan *et al.* 2010; Suzuki 2014). Under the circumstances, Kikuchi and Arima (2011) argue that theoretical discussions require an analysis of the relationship between geoparks and regional resources through geotourism. In addition, Kikuchi and Arima (2011) emphasise the importance of human geographical studies that elaborately and systematically analyse the relationship between the region and the geopark, because cooperation among regional actors is essential for achieving sustainable regional development.

Previous researches of geotourism and geopark were of two main types: the first explored the relationship between the geopark and local people. As to the former type, Takenouchi (2011) analysed the way in which the certification of the Itoigawa Global Geopark as the GGN changed the thinking of local people. Residents of Itoigawa City began to appreciate the value of their natural environment, history, and culture, acquiring a newfound pride in their hometown. This attitude helped to advance sustainable regional development in the Itoigawa Global Geopark. Azman *et al.* (2011) showed how local people and visitors to the Langkawi Global Geopark in Malaysia benefitted from educational activities that compensated for a general lack of knowledge. They advised local people to become volunteers at the geopark in order to develop their knowledge and understanding. Isono (2015) analysed the relationship between the geopark and local people, with a view to developing nature guide activities. Geoparks encourage local people to reevaluate their own hometowns, fostering a re-

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newed passion that can help to develop geopark activities.

As indicated above, there are a variety of studies related to geotourism and geopark. However, it can be pointed out that few researchers have argued how geotourism has been developed in geopark territories so far. It is therefore necessary to clarify the tourism development aspect because geoparks require the sustainable regional development through geotourism (Dowling and Newsome 2005). This study explores the development process of geotourism in the context of the geopark movement. In this study, the 'geopark movement' is considered to include all activities undertaken to create certified global geoparks, introducing geotourism to particular regions.

To achieve tourism development through implementing geotourism in a geopark, an organisation made up of local stakeholders including residents and local government should be established; there should also be a decision-making body to manage it. This study examines the role of geopark management and the way it has changed by ana-

lysing: the management body, the geopark managers' decision-making process, and the record of geopark management.

Study area is the Kanawinka Region in Australia. Australia is one of the world's most advanced sustainable tourism area and began very early to conserve and promote geosites as educational and tourism resources for regional development (Kikuchi and Arima 2011). Under the circumstance, the Kanawinka Region was chosen as the prime candidate of geopark in Australia as will become apparent below. For this reason, the Kanawinka Region in Australia, as a sample, can provide an ideal case study. The Kanawinka Region is located in the southeastern part of the Australian Continent and has an area of approximately 26,910 km² with seven local government areas: City of Mount Gambier, District Council of Grant, and Wattle Range Council in the state of South Australia and Shire of Glenelg, Shire of Southern Grampians, Shire of Moyne, and Shire of Corangamite in the state of Victoria (Fig. 1).

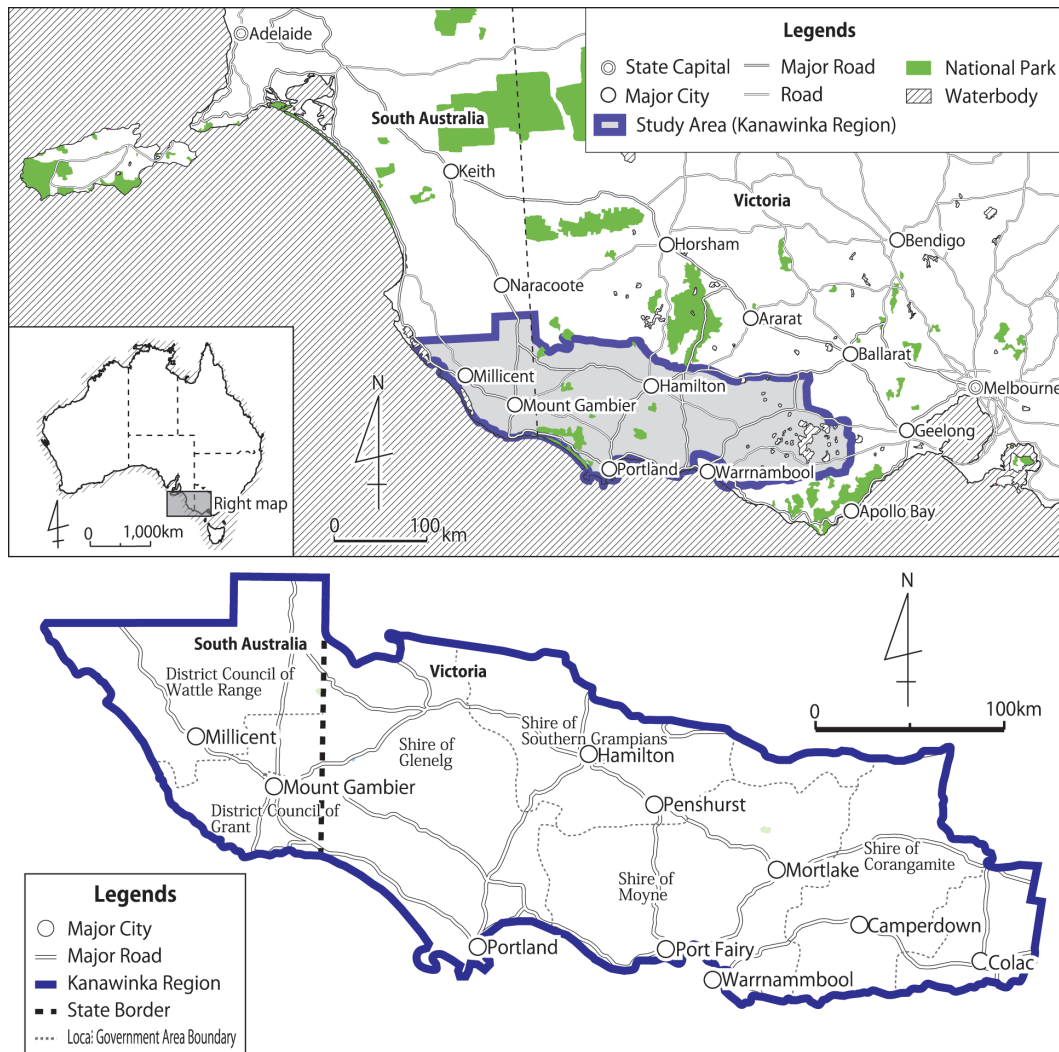


Fig. 1 Study area

The region tends to depend on primary industries but, since the 1990s, each local government and community has tried to develop tourism using regional resources, in particular its volcanic landscapes. The Western District of Victoria and the southeastern part of South Australia constitute the third largest volcanic plain in the world (Martin 2010). Kanawinka contains the part of the rural region of Western Victoria and the southeastern part of South Australia, known as the Newer Volcanic Province and incorporating an area that stretches from Red Rock at the City of Colac to the Town of Millicent.

This study begins by explaining the growth of geotourism in Australia. Second, the geopark movement in the Kanawinka Region is analysed, with a focus on the efforts of local stakeholders there. Third, the author describes the management of geopark focusing on the characteristics of the geopark management body, the decision-making process, and the activities record. Finally this study discusses how geotourism has been developed in the Kanawinka Region. Fieldwork based on interviews and observation was conducted during October and November in 2012, February, September, and October in 2013, and May 2014. Representatives of the Kanawinka Geopark Board (simply, KGB) and seven local governments were interviewed about the Australian geotourism and geopark movement.

2. Geotourism and the geopark movement in Australia

In Australia, the Geological Society of Australia (simply, GSA) has made a huge contribution to geotourism and the geopark movement. This section explains the early work of the GSA based on a series of Joyce's studies and describes the characteristics of geotourism and the geopark movement in Australia, explaining how the geoheritage conservation movement developed and how geotourism was introduced to Australia.

The GSA was established as a non-profit organisation in 1952 to promote, develop, and support educational activities and academic research in earth sciences in Australia. In the 1960s, the first geological heritage studies were carried out by local GSA groups in Queensland and South Australia (Joyce 2010b). Divisions of the Society organized subcommittees of interested geologists and began a program to seek out and promote individual heritage sites in the mid-1960s. After the 1970s, with funding from government grants, programs were set up to identify, document, evaluate, and recommend approaches to the management of sites across the country. In this context, the establishment of the National Estate Grants Program in 1973 and the Australian Heritage Commission (simply, AHC) in 1975 made possible the first of a long series of Australian Government grants for the study of features of Australia's National Estate; key features were nominated

for inclusion in the newly established Register of the National Estate (simply, RNE). The RNE has three categories of sites, recognizing natural, historic, and Aboriginal heritage. The RNE was established to maintain such heritage sites for future generations. Selected sites are evaluated using federal government criteria based on aesthetics and scarcity. In the natural heritage section, methods of assessing significance at the regional, state, national, and international levels were developed by the AHC for the RNE, building in part on the expertise of the GSA subcommittees. In addition, new inventories based on the RNE have been proposed by organisations such as the GSA and AHC since the 1980s.

Since the 1990s, the GSA and other stakeholders have discussed ways to use Australia's geoheritage. Researchers advocated geotourism at the GSA's domestic conferences in 1996. Casey and Stephenson (1996) argued that simple language should be used to explain geology; descriptions should avoid jargon, and include links to indigenous (Aboriginal) legends, while also exploiting the public's interest in orchards and wineries. In their view, geotourism should make use of Aboriginal culture and livelihood, as well as using attractions such as wineries to turn moderately interesting geological and geomorphological features into tourism resources. Some Australian researchers have investigated case studies in National Parks and World Heritage Areas, including the Greater Blue Mountain Areas (Kikuchi and Arima 2011), the Great Barrier Reef Marine Park, and the Kakadu National Park (Mayer 1996), as well as renowned tourist destinations such as Wave Rock in the State of Western Australia (James *et al.* 2005) and the Victorian Alps in the State of Victoria (Scherrer 2010). In these areas, the authorities have found ways to link geological and geomorphological features (such as the continental origin of Australia) to the ecosystem or regional culture by 'telling a story'. The storytelling approach has dominated the geopark movement in Australia since the 2000s (Joyce 2010b). It grew out of discussions about the best direction for the geopark movement that lasted from the middle of the 1990s to the beginning of the 2000s. The GSA, AHC, and the Australian National Commission for UNESCO (simply, UNESCO Australia) in the Department of Foreign Affairs and Trade established the 'Geopark Project' and began the process of selecting suitable geopark sites (Turner 2013).

The Kanawinka Region was chosen as the prime candidate; it has a range of volcanic landscapes, including scoria cones and maars in the Newer Volcanic Province (simply, NVP), which cover a large part of the southeastern Australian Continent (Fig. 2). In the NVP, many lava shields are distributed widely, especially between the Mount William and Muckleford Faults. Many volcanic landscapes between

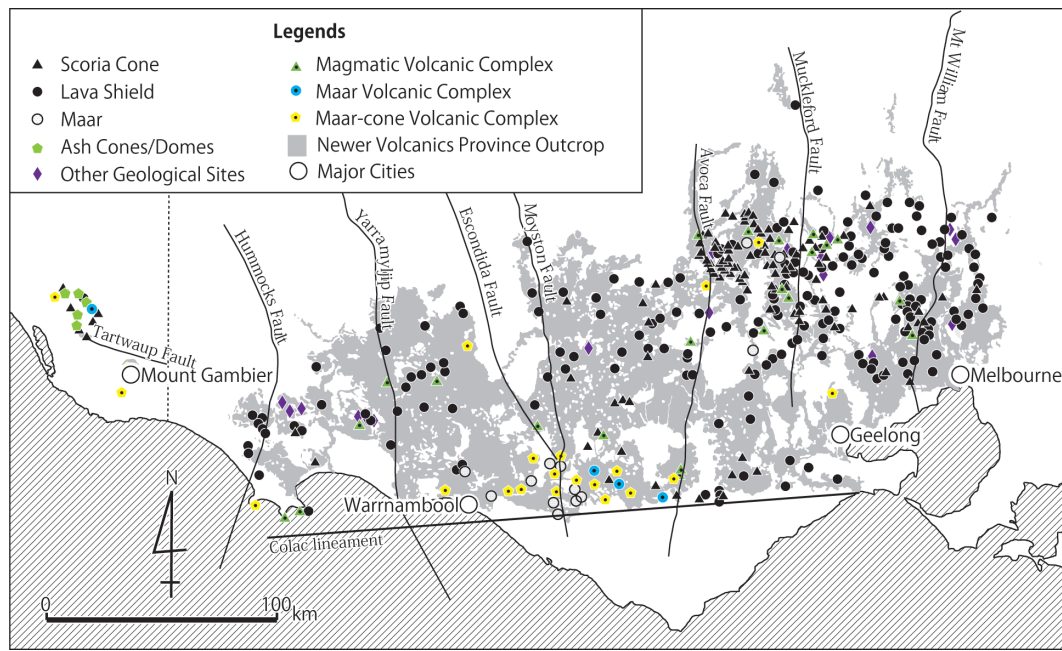


Fig. 2 Distribution of volcanic landscapes in the Newer Volcanic Province of the South-east Australia (Source: Joyce (1975) modified by the author)

the Muckleford and Avoca Faults feature not only lava shields but also scoria cones. Maar and maar-cone volcanic complexes can be found in the southern region between the Avoca and Moyston Faults. In the Kanawinka Region, to the west side of the Moystone Fault, there are 100 well-studied volcanoes ranging in age from five million years to just a few thousand years. The Kanawinka Region was selected as a geopark for the following two reasons. First, there were already some stories, including “The onset of aridity in Australia” and “Young volcanicity on an old continent”. Second, a voluntary organisation was in place to implement geotourism and play a role in managing geopark activities. The following chapter will describe how the geopark movement developed in the Kanawinka Region by focusing on the actual activities.

3. Geotourism and the geopark movement in the Kanawinka Region

3.1. Geotourism in the Kanawinka Region

As previously mentioned, there are a variety of volcanic landscapes in the Kanawinka Region. Some of them are registered with the RNE and managed by various bodies including the federal government, state, local governments, or private property. They are better preserved than those in the western part of the NVP, making it possible to see volcanic forms en masse (Fig. 3). For this reason, they have been used as landmarks or icons by each local government area in the Kanawinka Region and regarded as tourism resources since the 1990s. For example, in the City of Mount



Fig. 3 A case of volcanic landscape ‘Blue Lake’ in the City of Mount Gambier (2014)
(Source: taken by the author, May 2014)

Gambier, volcanic landscapes such as crater lakes and sinkholes have been regarded as symbols of the city, enabling the local government and local residents to set up interpretative signs to explain the significance of these features.

Other local governments in the Kanawinka Region have independently tried to use volcanic landscapes as tourism resources. To support these initiatives, in the mid-1990s, a park ranger at the Parks Victoria drew up a broad tourism development project that included the whole Kanawinka Region in a ‘story’ about volcanic landscapes. The park ranger held workshops to bring local residents and local government staff members into the project. Six workshops were convened between 1996 and 1997 in the following

cities and towns: Port Fairy (Moyne), Portland (Glenelg), Mount Gambier, Hamilton (Southern Grampians), Heywood (Glenelg), and Camperdown (Corangamite). The main participants were visitor information centre staff members, hotel owners, and tourism industry representatives, as requested by the park ranger, who wanted a range of different stakeholders to take part. The local government staff members and state officials also participated in the workshops, as it was necessary to secure funds to carry out this extensive tourism development project in the Kanawinka Region.

After two years of workshops, the Volcano Discovery Trail Committee (simply, VDTC) was established; it was made up of local residents and local government staff members, to carry out the project. The VDTC was supported financially by seven local government areas, which had opted to participate in this broad tourism development project. All of the local government areas recognized their less favored condition as tourist destinations, so it was very easy to progress from holding workshops to consensus building on the project. Figure 4 explains the three major tourist routes around the Kanawinka Region (the Melbourne-Adelaide Inner Route, the Melbourne-Adelaide Coastal Route, and the Great Southern Touring Route), which cover the outer edge and a few parts of the region. Most local government areas in the Kanawinka Region did not benefit much from these tourist routes. In addition, there are three internationally famous tourist destinations, the Naracoorte Caves National Park (a World Heritage Site), the Grampians National Parks, and the Great Ocean Road around the Kanawinka Region. Only a few tourists visit the Kanawinka Region from the state capitals of Adelaide and Melbourne. Under these circumstances, it makes

a significant difference to promote local tourism through a 'story' about volcanic landscapes, which distinguishes the Kanawinka tourism strategy from those of other regions. To create stories about the volcanic landscapes, it was necessary to strengthen the partnerships between local government areas. In the Kanawinka Region, the VDTC was formed without conflict and was able to begin developing stories gradually.

However, the City of Warrnambool and the Shire of Colac Otway, located near the Kanawinka Region, refused to participate in the work of the VDTC. The City of Warrnambool had no well-known volcanic landscapes; the local government area focused its tourism strategy on the Great Ocean Road because it functioned as the western gateway of the famous coastal destination. It has been pointed out that the Shire of Colac Otway has many major tourism resources such as the Otway National Park and the Cape Otway Light Station, which is the oldest surviving lighthouse in the Australian Continent, as well as the Great Ocean Road and volcanic landscapes around the northern part of the local government area (for example, in the City of Colac). In short, both local governments were favorably situated as tourist destinations and perhaps did not see the point of participating in a broad tourism development project.

3.2. Geopark movement in the Kanawinka Region

The VDTC, members discussed practical steps toward achieving this broad tourism development project and decided to hold a board meeting once every two or three months. The VDTC positioned the board as its most important decision-making body; members would report on each activity and design future plans. By holding several

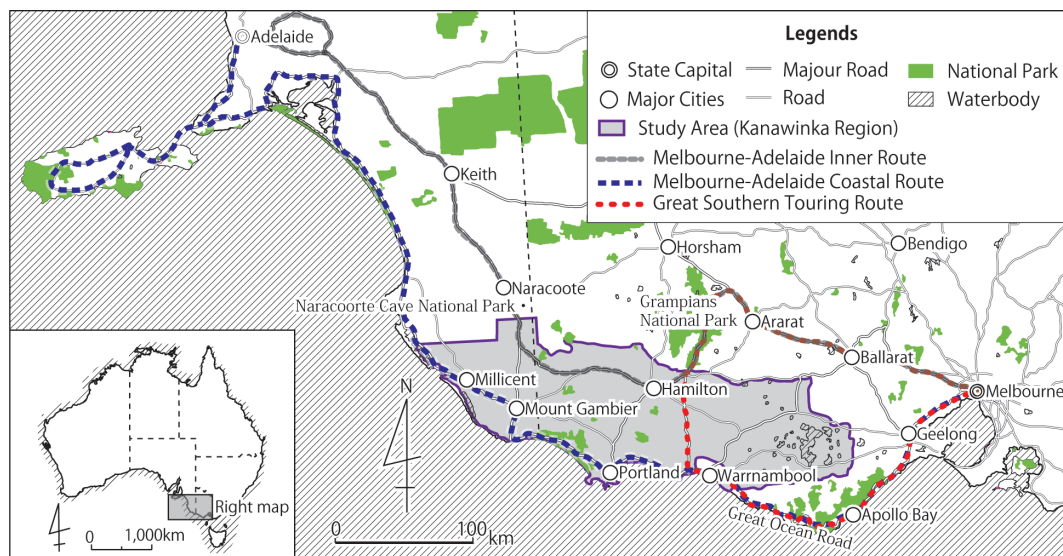


Fig. 4 Touring route map around the Kanawinka Region (2014)
(Source: Visitor Information Centre of the City of Mount Gambier)

board meetings, the VDTC worked out a Volcanic Region Tourism Development Strategy called the Tonge Report, which was a master-plan for broad tourism development, designed to turn the volcanic landscapes into tourism resources organically combined in the Kanawinka Region. The current and future framework for volcanic tourism was laid out in the Tonge Report, which discussed issues including significance, management status, and visitor interpretation levels (whether or not to have signs and accessibility). The VDTC used this to create a discovery trail, which was the best way to use volcanic landscapes for tourism. Yasujima (2001) said that the discovery trail would promote circuit tourism as a resource for the whole region. Building on this concept, the VDTC aimed to create a new tourist destination, 'the Kanawinka Region' by linking all of the different volcanic landscapes through the discovery trail.

Thus, the VDTC created a round-tour map based on the distribution of volcanic landscapes to attract tourists to the Kanawinka Region (Fig. 5). This map treated roadways as trails for the discovery of major volcanic landscapes and other volcano-related resources. To further promote circuit tourism, the VDTC set up some interpretative signs for tourists in the Kanawinka Region to explain the continuity (story) of the various volcanic landscapes (Fig. 6). Owing to the design of the discovery trail, some volcanic landscapes that had never before been considered tourism resources began to attract visitors. Drystone walls in the

Town of Mortlake, in the eastern part of the Kanawinka Region were a typical example. Drystone walls were rock-faces in which volcanic rocks were used to mark the boundaries between farmlands settled by Europeans at the beginning of the 18th century. Previously, drystone walls had been conserved and managed by the local government or local residents as private property. However these drystone walls had an important function in explaining the relationship between volcanic landscapes and human activities in the Kanawinka Region; for this reason, the VDTC decided to designate drystone as a major tourist attraction on the discovery trail. Landowners put up interpretative signs so that tourists could understand the relationship between the drystone walls and volcanic activities (Fig. 7).

The VDTC also made use of privately owned volcanic landscapes, turning them into tourism resources on the discovery trail. Tourists had never before visited the Giant Rock located in the western part of the Shire of Southern Grampians because it was on private property. The landowner appreciated the value and rarity of the Giant Rock, and hoped tourists to visit and enjoy the geological feature. He constructed a path across private farmland to the Giant Rock; now tourists can visit it freely.

The VDTC developed broad tourism by creating a discovery trail, in accordance with the recommendations of the Tonge Report. This work was evaluated by the GSA, AHC, and UNESCO Australia, and the Kanawinka Region was chosen as a geopark site in 2003. In 2005, the VDTC

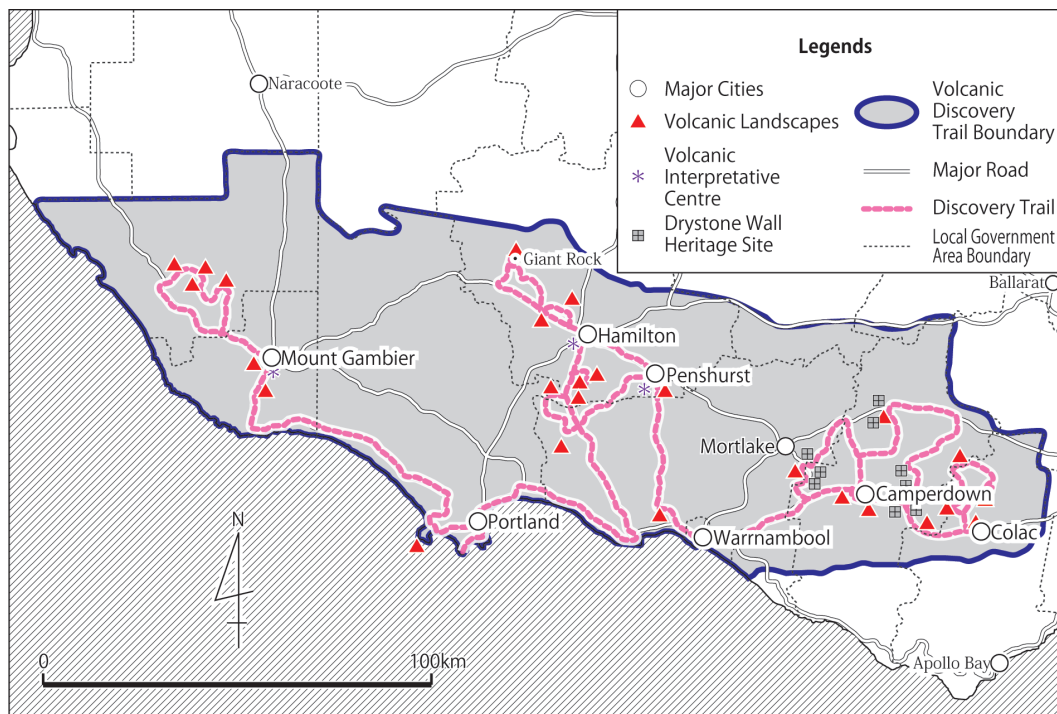


Fig. 5 Round-tour map by the Volcano Discovery Trail Committee (2006)
(Source: Kanawinka Geopark Board)



Fig. 6 Interpretative sign by the Volcano Discovery Trail Committee at the side of Valley Lake in the City of Mount Gambier (2012)
(Source: taken by the author, October 2012)



Fig. 7 Drystone wall and its interpretative sign at the Town of Mortlake (2013)
(Source: taken by the author, October 2013)

decided to apply to UNESCO for GGN and in 2006, they began to discuss the project with many stakeholders in the Kanawinka Region (Turner 2006). The VDTC changed its designation to the KGB and played a role in managing the organisation. The KGB used a board meeting to carefully discuss the proposal, and submitted a document adhering to the guidelines and criteria of the GGN to UNESCO. The Second Global Geopark Conference was held in Belfast, Northern Ireland in September 2006 and a representative of the KGB attended to make a presentation. After the presentation, the GGN committees visited the Kanawinka Region to carry out an on-site review.

In July 2008, the establishment of a Kanawinka Global Geopark was announced; it had evolved from its predecessor of the previous decade, the discovery trail, a well-developed tourism concept that encouraged tourists to drive across the highways of Western Victoria and over the border into South Australia via a series of outstanding volcanic landscapes (Lewis 2008). After being certified by the GGN, KGB actively participated in international conferences and also promoted international exchanges, establishing sister-geopark relationships with the Lushan Global Geopark (China), the Hong Kong Global Geopark, and the Bergstraße Odenwald Global Geopark (Germany).

In spite of accepted by the GGN in 2008, a change in the federal government has prevented it from receiving federal political support. During the 19th meeting of the Environment Protection and Heritage Council in November 2009, the federal government criticized the direct application for GGN without reporting to the Department of the Environment and Heritage, which holds jurisdiction over the natural and cultural heritages in Australia. The federal government requested the UNESCO to resign the Kanawinka Global Geopark and the Kanawinka Region lost the title of 'global' in January 2013 after a re-examination in 2012.

Therefore the Kanawinka Region was reorganized as a national geopark. Now the KGB does not work internationally, but it retains the traditional management form and focuses on the local-oriented geopark movement.

4. The management structure of the geopark

4.1. Geopark management body

The VDTC, which preceded the KGB, was run by local residents, including local government staff members, and tourist industry staff members. After receiving certification from the GGN, about 10 KGB members worked on geopark activities; although the director changed, there were few other personnel changes over time. After the reorganisation of the national geopark, the KGB's nine-person team continued its work.

Table 1 shows the qualifications of KGB staff members in 2013; the organisation consisted of four state or local government staff members (number 1, 2, 3, and 4), three visitor information centre staff members (5, 6, and 7), and two local residents (8 and 9). Member 1 (M1) was a hydro-geologist from the South Australian government's Department of Environment, Water and Natural Resources. He became the Director of the KGB in 2012 when the former director moved out of the area. M2 was also a hydro-geologist, while M3 was a local government staff member from Mount Gambier. Both of them were affiliated with the VDTC and had taken part in a wide range of activities, such as participating in international and domestic conferences. M4, M5, M6, and M7 were involved in promoting geotourism in the Kanawinka Region. M8 ran a web design firm in Macarthur, Shire of Moyne and now manages the KGB website; having previously observed a board meeting, he was formally inducted in 2010. M9 lived in Derrinallum and belonged to the Mount Elephant Community Management Group, which promotes the conservation

Table 1. Attributes of the Kanawinka Geopark Board Members (2013)

No.	Age	Affiliation (Local Government Area)	Primary role
1	60s	Hydro-geologist (Adelaide)	Director, Public relations
2	50s	Hydro-geologist (Mount Gambier)	Monitoring, Public relations
3	50s	Business manager (Mount Gambier)	Chairperson, Public relations
4	50s	Project officer (Grant)	Promoting geotourism (head)
5	50s	Tourism officer (Wattle Range)	Promoting geotourism
6	50s	Tourism officer (Southern Grampians)	Promoting geotourism
7	50s	Tourism officer (Moyne)	Promoting geotourism
8	50s	Private web-designer (Moyne)	Webmaster
9	70s	Retired (Corangamite)	Webmaster aide, etc.

Source: Interview by the author.

and use of Mount Elephant. His role on the KGB is to promote the best possible use of Mount Elephant for tourism.

Of the KGB members, M2, M3, and M4 live in Mount Gambier; as the KGB has no office, Mount Gambier City Hall (where M3 works) serves as its business address, giving Mount Gambier a central role in KGB affairs. KGB members fulfill three primary roles, taking responsibility for external affairs, promoting geotourism, and public relations. M1, M2, and M3 all work in external affairs; they take part in formal conferences, promote the geopark movement in Warrnambool and Colac Otway, liaise with local tourist centres, such as Naracoote National Park and the Grampians National Park, and encourage private geosite owners to attend board meetings. To promote geotourism, the KGB distributes booklets and maps of geosite features and routes for tourists, introduces the geopark to tourists and local residents, and asks every local government to design a tourism strategy that supports the geopark movement. When it comes to public relations, the KGB creates geopark advertising campaigns using their own website, as well as newspapers, radio, TV, and other media. As these activities are mutually interrelated, KGB members share in the management of the geopark.

4.2. Decision-making process of the geopark management

The VDTC members have respected the face-to-face decision-making process such as board meetings held every two or three months so far. After receiving its GGN certification, the KGB focused on promoting good communication, helping to exchange information and to design project programs for the future. They made regular brief reports by telephone, post, and fax.

The KGB aims to encourage local government areas and tourist industry staff members, as well as community members and local stakeholders with an interest in the geopark movement, to participate as observers in its board meetings. The KGB regards its board meetings as an opportunity to build a consensus among members and also to open a space for communication between the KGB and local

residents. For this reason, KGB board meetings are generally held in relaxed, open spaces such as lounges, usually in Mount Gambier but sometimes in towns of the Southern Grampians, such as Hamilton and Peshurst.

Most KGB members tend to participate in every board meeting. Clearly, the KGB attaches great importance to its board meetings, as to communicate face-to-face despite covering a broad geographical area through regional cooperation. Besides, the KGB invited local government staff members to a board meeting to generate understanding and explore opportunities for financial support. The KGB also invited tourist industry staff members, including a winery manager, visitor information staff members, and museum staff members. Some observers participating in the board meetings belong to the same museum, 'the Volcano Discovery Centre' in the Town of Peshurst. Through wide ranging board meeting participation, the KGB aimed to obtain the consent of local residents for geopark movement projects. As a result of this outreach, some local residents (for example, M8) became members of the KGB. Furthermore, the KGB has used financial arguments to try to build a consensus on the geopark movement at its board meetings, as well as using face-to-face communications to counteract the broad geographical spread and achieve regional cooperation.

4.3. Activity record of the Kanawinka Geopark Board

This section explains the record of KGB's efforts to clarify its geopark activities by analysing its finance records. The KGB is funded by seven local governments and spends 4,500-5,000 Australian Dollars (AU\$) a year, as described below. This study describes the financial condition for the period of June 2011 to May 2012. In 2011, the KGB spent most of its budget on promotional activities, updating maps and logos, distributing maps and brochures, and printing and advertising official visitor guides. The new Kanawinka Geotrail Map not only gave the locations of cities and tourism resources but also described the features of volcanic landscapes, making it a travel guidebook

of the Kanawinka Region. The KGB distributed this map in Adelaide, Melbourne, and the adjacent cities and towns of Ballarat, Appollo Bay, and Warrnambool, as well as sending copies to all visitor information centres in the Kanawinka Region. 120,000 copies of this map were printed in 2011, and so many tourists must have used it for Kanawinka Region circuit tourism.

The former director also incurred some overseas travel expenses by visiting the Hong Kong Global Geopark and inspecting another international geopark (the Dong Vang Karst Plateau Geopark in Vietnam) as a member of GGN. Her overseas travel costs were high in contrast to the organisation's local travel costs. It therefore seems that the KGB focused more on global than local activity in 2011. These global activities depleted the resources of the KGB.

In September 2012, the new director (M1) changed the focus of the KGB to prioritise regional or local, rather than global, activities. In practical terms, he tried to communicate with some local governments that had no awareness of the geopark movement, while reinforcing the relationship between the KGB and local sites such as the Naracoorte Cave National Park and the Grampians National Park. Although it had not yet embarked on a campaign of consensus building, the KGB had already exchanged opinions and raised the profile of the geopark movement.

To promote the educational value of the sites, the KGB designed and implemented science tours and introduced educational facilities within the geopark movement. For example, M1 persuaded a researcher at the University of Adelaide to give a lecture about the geopark activities in the Kanawinka Region as part of a regular class (Fig. 8). In this lecture, the researcher gave students a virtual tour of the Kanawinka Region using a variety of library photographs. Most students had never visited the Kanawinka Region or seen its wide range of volcanic landscapes. They became increasingly interested in Kanawinka's geopark

initiative and helped to design some field tours. Thus, even this lecture had some potential to increase the number of visitors to the Kanawinka Region by presenting the geopark as a place to carry out scientific fieldwork (Fig. 9). The use of the geopark for scientific fieldwork created a new form of tourism in the Kanawinka Region.

5. Conclusion

This study examined how geotourism has been developed in the Kanawinka Region by analysing the relationship between the Australian geopark movement and the tourism development efforts of the region.

In Australia, the GSA and AHC established a foundation for the promotion of geotourism and the geopark movement because some geological sites were regarded as geo-heritage sites and targeted for conservation and evaluation early on. Under the circumstances, the UNESCO and the GSA tried to design the geopark project in the 2000s with particular attention to the NVP, especially the Kanawinka Region. On the other hand, the VDTC had worked on a broad tourism development project utilizing volcanic landscapes through regional cooperation in the Kanawinka Region since the mid-1990s. All of the local governments recognized their less favoured condition as tourist destinations, so it was very easy to progress from holding workshops to consensus-building on the project. After discussions with the GSA, UNESCO, and VDTC, the local governments decided to officially promote the geopark movement in the Kanawinka Region. Despite being certified as part of the GGN in 2008, it was declared that the Kanawinka Region deserves to be an Australian national geopark by the federal government in 2013.

As for the geopark management, the VDTC has been engaged in the geopark movement, practicing broad tourism development for a long time. To be included in the GGN, the VDTC changed its name to the KGB. The KGB



Fig. 8 Promoting and educational activities of the geopark movement to the University of Adelaide (2013)
(Source: taken by the author, February 2013)



Fig. 9 Scientific fieldwork in the Kanawinka Region (2014)
(Source: taken by the author, May 2014)

has regarded the board meeting as the most important decision-making body since working as the VDTC. The board meeting is held once every few months, and observers such as the local residents and local government staff members as well as almost all of the committee members attend nearly every meeting. Each member of the KGB has emphasized face-to-face consensus-building in spite of being a part of the board's regional partnership for a long time.

Geotourism has been seen as an important source of tourism development in major tourist destinations such as the World Heritage Sites in Australia. In contrast, the Kanawinka Region, which the geopark movement has been developed, is generally recognized as only minor tourist destination. This region has attempted to increase tourism development by implementing geotourism with a discovery trail comprising a variety of volcanic landscapes. The Kanawinka Region is unique in that it practices geotourism systematically, through collaboration between industry, government, and citizens. After the restructuring the national geopark, the KGB intends to implement new geotourism attractions such as field science by establishing renewed networks between academia as well as industry, government and citizens. Accordingly, the Kanawinka Region has been in the progress of change into the local-oriented geopark movement and a variety of students have been there to experience the field science through practicing geotourism. Thus it can be pointed out that implementing geotourism has been regarded as not just a meaning of the tourism development but the provision of novel education opportunity in the context of the geopark movement. However, it may be noted that there are a number of geosites in various local government areas in the Kanawinka Region, each with regional differences in management, utilization, and geotourism policy. Coping with discussion of these differences presents a necessary future challenge.

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References

- Amano, K., Matsubara, N., Hosoi, J., Honda, N., Komine, S. and Ito, T. (2011): Activities of Ibaraki University in the North Ibaraki Geopark Project –Case study on the role of university in implementing the geopark project-. *Journal of Geography (Chigaku Zasshi)*, **120**, 786-802. (in Japanese with English abstract)
- Azman, N., Halim, S. A., Liu, O. P. and Komoo, I. (2011): The Langkawi Global Geopark: local community's perspectives on public education. *International Journal of Heritage Studies*, **17**, 261-279.
- Calnan, R., Brady, S. R. and Hill, W. (2010): Geoparks: Creating a vision for North America. *The George Wright*, **27**, 40-45.
- Casey, J. N. and Stephenson, A. E. (1996): Putting geology into tourism –some tips and practical experience. *Geological Society of Australia 13th Australian Geological Convention*, **41**, 79.
- Dowling, R. K. (2011): Geotourism's global growth. *Geoheritage*, **13**, 1-13.
- Dowling, R. K. and Newsome, D. (2005): Geotourism. London, Elsevier.
- Farsani, N. T., Coelho, C. and Costa, C. (2011): Geotourism and geoparks as novel strategies for socio-economic development in rural areas. *International Journal of Tourism Research*, **13**, 68-81.
- Gray, N. (2008): Geodiveristy: developing the paradigm. *Proceedings of the Geologists' Association*, **119**, 287-298.
- Hose, T. A. (1995): Selling the story of Britain's Stone. *Environ. Interpret.*, **10**, 16-17.
- Hose, T. A. (1996): Geotourism, or can tourists become casual rock hounds? In Bennett, M. R., Doyle, P. and Larwood, J.G. eds., *Geology on Your Doorstep*, Geological Society of London. 207-228.
- Hose, T. A. (2000): European geotourism–geological interpretation and geoconservation promotion for tourists. In Barretino, D., Wimbledon, W. A. P. and Gallego, E. eds., *Geological Heritage*, Instituto Tecnológico GeoMinero de Espana. 127-146.
- Isono, T. (2015): Regional development of nature guide activities in Oshima Town, Tokyo. *Journal of Geography (Chigaku Zasshi)*, **124**, 43-63. (in Japanese with English abstract)
- Iwamatsu, A. and Hoshino, K. (2005): Role of geoparks in conservation and good use of geological heritage. *Global Environmental Research*, **10**, 185-196. (in Japanese with English title)
- James, J., Clark, I. and James, P. (2005): Geotourism in Australia. In Dowling, R. and Newsome, D. eds., *Geotourism*. 63-77.
- Joyce, E. B. (1975): Quaternary volcanism and tectonics in

- southeastern Australia. *Royal Society of New Zealand Bull.*, **13**, 169-176.
- Joyce, E. B. (2010a): Australia's geoheritage: history of study, a new inventory of geosites and applications to geotourism and geoparks. *Geoheritage*, **2**, 39-56.
- Joyce, E. B. (2010b): Australia's geological heritage: a national inventory for future geoparks and geotourism. In Newsome, D. and Dowling, R. K. eds., *Geotourism –The Tourism of Geology and Landscape-*. 27-45.
- Kikuchi, T., Iwata, S., Watanabe, M., Matsumoto, J. and Koide, H. (2011): Preface for the special issue on "Geopark and regional development". *Journal of Geography (Chigaku Zasshi)*, **120**, 729-732. (in Japanese with English title)
- Kikuchi, T. and Arima, M. (2011): Construction of geotourism and its contribution to the sustainability of regional development in Australia. *Journal of Geography (Chigaku Zasshi)*, **120**, 743-760. (in Japanese with English abstract)
- Kohmoto, D. (2014): Significance and problems of administrative management of Sobrarbe Geopark in the Spanish Pyrenees. *E-journal GEO*, **9**, 50-60. (in Japanese with English title)
- Lewis, I. D. (2008): Australia's Kanawinka Geopark –volcanoes and lakes, limestone and sinkholes. *Proceedings of the Inaugural Global Geotourism Conference*, 251-256.
- Lewis, I. D. (2010): Kanawinka, Australia: Setting up, marketing and ensuring the future of a large geopark. In Dowling, R. K. and Newsome, D. eds., *Global Geopark Perspective*. 192-214.
- Martin, K. (2010): Walks of Shipwreck Coast and Volcano Country. Bayswater. Bas Publishing.
- Mayer, W. (1996): Geology and tourism. *Abstract of the Geological Society of Australia 13th Australian Geological Convention*, 41, 278.
- Mokudai, K. (2009): Geopark as a strategy for natural environment conservation. *Gekkan Chikyu*, **31**, 365-369. (in Japanese)
- Pförr, C. and Megerle, A. (2005): Geotourism: a perspective from southwest Germany. In Dowling, R. K. and Newsome, D. eds., *Geotourism*. 118-139.
- Scherrer, P. (2010): The Australian Alps: opportunities and challenges for geotourism. In Newsome, D. and Dowling, R. K. eds., *Geotourism –The Tourism of Geology and Landscape-*. 77-87.
- Suzuki, K. (2014): Geoparks as sites for dark tourism. *E-journal GEO*, **9**, 73-83. (in Japanese with English abstract)
- Takenouchi, K. (2011): Regional development in Itoigawa geopark. *Journal of Geography (Chigaku Zasshi)*, **120**, 819-833. (in Japanese with English abstract)
- Turner, S. (2013): Geoheritage and geoparks: One (Australian) woman's point of view. *Geoheritage*, **5**, 249-264.
- Yokoyama, S. (2008): What is geotourism? its possibility in Japan. *Proceedings of JITR Annual Conference*, **23**, 345-348. (in Japanese)
- Yokoyama, S. (2010): A study on the possibility of geotourism in Japan. *Review of Commerce and Business*, **50**, 3-16. (in Japanese with English title)
- Watanabe, M. (2008): Moving toward geopark activities in Japan. *Chiri*, **53**, 26-31. (in Japanese)
- Watanabe, M. (2009): Geopark – a place for coming across earth. *Kagaku EYES*, **51(2)**, 1-6. (in Japanese)
- Yasujima, H. (2001): Tourist destination and tourism resources. In Okamoto, N. ed., *Approach to the Tourism Study*. Yuhikaku Aruma, 311-333. (in Japanese)
- Zouros, N. C. (2010): Lesvos Petrified Forest Geopark, Greece: Geoconservation, geotourism, and local development. *The George Wright*, **27**, 19-28.

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