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MELBOURNE AUSTRALIA

*Accessible and inclusive cities: Exposing design and leadership challenges for Bunbury and Geelong*

This is the Published version of the following publication

Johnson, Adam, Tucker, Richard, Chau, Hing Wah and Jamei, Elmira (2022)  
Accessible and inclusive cities: Exposing design and leadership challenges for  
Bunbury and Geelong. Urban Planning. ISSN 2183-7635

The publisher's official version can be found at

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5 Article

6 **Accessible and inclusive cities: Exposing design and leadership challenges**  
7 **for Bunbury and Geelong**

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14

15 **Abstract**

16 This paper compares research identifying the systemic barriers to disability access and inclusion in two regional Australian  
17 cities, and discusses some of the leadership and design challenges that will need to be addressed by government and  
18 industry to embed universal design principles within the planning, development and redevelopment of urban  
19 infrastructure.

20

21 In Geelong, Victoria, the disability community sought a more holistic and consultative approach to addressing access and  
22 inclusion, given the often opaque decision-making dynamics at play in the urban planning and development of a city.  
23 Systems-thinking and a collective impact approach were used to identify the complex and interdependent structural,  
24 social, economic and political processes obstructing or driving change, and to generate recommendations for action.

25

26 At Bunbury, Western Australia, a similar project saw a group of people with lived experience of disability take on the role  
27 of co-researchers in analysing the various factors that obstruct the integration of universal design at a local government  
28 level. Their research produced recommendations around introducing critical safeguards for universal design at the  
29 executive and technical levels of decision-making. These included recommendations such as ongoing staff training and  
30 technical support for universal design, stronger policies and procedures, benchmarking best practice, and most  
31 importantly, engaging in co-design with people with disabilities.

32

33 We describe the process followed in Geelong and Bunbury to identify how, through collaborative and action-oriented  
34 research processes, they exposed the technical, cultural, political, and systemic changes required to achieve more  
35 equitable access and inclusion in the urban landscape.

36

37 **Keywords**

38 access; accessible cities; co-design; disability; inclusion; inclusive design; participatory action research; universal design

39

40 **Issue**

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44

45 **1. Introduction**

46 Achieving change in an ever more complex world is difficult, especially in the face of an array of complex ‘wicked’  
47 problems, from an ageing population to climate change to intergenerational cycles of economic and social exclusion. As  
48 Conway et al suggest, “it can often seem that these challenges are insurmountable and that we lack the ability to make  
49 meaningful change” (2017, p. 3). For those who continue to be excluded from access to and participation in the social  
50 and economic life of cities, the pace of change must increase substantially.

51  
52 In Geelong, a regional city of Victoria, Australia, the painfully slow progress faced by a knowledgeable, engaged and  
53 determined disability community who had for years lobbied for inclusion, visibility and improved accessibility suggested  
54 the need to move to a more holistic process for overcoming obstacles to change. The new approach drew attention to  
55 the complex system of underlying dynamics and patterns of interaction at play in their city. In this, systems-thinking was  
56 harnessed to a collective impact approach to create a solid understanding of the wicked, complex and interdependent  
57 structural, social, economic and political processes that obstruct or drive change. The collective impact approach aimed  
58 to maximise the sustainability of change by providing opportunity for a positive shift in attitudes towards disability.  
59 Systems thinking created a deeper understanding of the structural causes of inaccessibility and exclusion in the city and  
60 then identified the most effective actions to create change based on that analysis. By appreciating in this process factors  
61 like change dynamics, competing incentives and cultural norms, stakeholders were able to identify barriers to change,  
62 and find the routes around them.

63  
64 In Bunbury, a regional city of Western Australia, a similar project used participatory action research (PAR) to engage a  
65 group of people with lived experience of disability as co-researchers. They were tasked with the role of analysing  
66 structural and cultural factors impacting disability access and inclusion outcomes within the City of Bunbury (the local  
67 government authority). Through qualitative engagement with key decision-makers at the City, and narrative analysis, the  
68 group identified significant technical and cultural barriers operating at the design stages of public infrastructure, leading  
69 to inaccessible design outcomes and the experience of being ‘disabled by design’. Key recommendations, including  
70 training and technical support for universal design, stronger policies and procedures, benchmarking best practice, and  
71 engagement in co-design with people with disabilities were identified as key tools that the City could implement to  
72 facilitate change towards an enabling urban landscape, rather than a disabling one.

73  
74 This paper describes the process followed in Geelong to explain how a series of actions were identified by the disability  
75 community as those with the greatest possible impact and feasibility to affect change. This process and resulting actions  
76 are then compared to the process followed and outcomes arising in Bunbury to reveal clear similarities but also important  
77 differences. At the heart of this comparison is understanding the very nature of making change, in the context of the  
78 seemingly insurmountable challenges facing people with lived experience of disability within Australian cities.

79  
80 *1.1 Impetus for the research*

81 While both projects were conceived independently, they commenced with strikingly similar aims – reflecting a broader  
82 societal responsiveness towards disability access and inclusion. The City of Bunbury’s aspiration in 2014 was to become  
83 the *Most Accessible Regional City in Australia* (MARCIA); a goal underpinned by a desire to understand how disability  
84 access and inclusion in the city compared to other similar-sized regional cities in Australia. The need for benchmarking  
85 was attributed to the lack of indicators by which the local government could conduct a comparative baseline self-  
86 assessment regarding their progress towards disability access and inclusion.

87  
88 Five years later, the *Accessible & Inclusive Geelong Feasibility Study* (AIG) sought to ascertain the feasibility of making  
89 Geelong “a world-class accessible and inclusive city aligned with global benchmarks.” Like Bunbury’s aim, this was a highly  
90 aspirational goal that it became clear was difficult to measure. During the early stages of the project, a review of global  
91 evidence on benchmarking accessible and inclusive cities found that when it comes to measurement, accessibility is a  
92 slippery concept even when applied only to the built environment. While the United Nations Convention on the Rights  
93 of Persons with Disabilities (UNCRPD) (United Nations, 2007) did much to set an agreed definition of inclusion and equal  
94 access, the most direct explanation of built environment accessibility (Article 9) defines access only in terms of ‘equal’

95 access, the elimination of ‘obstacles and barriers’, the ‘implementation of minimum standards and guidelines’, and the  
96 provision of ‘appropriate forms of assistance and support’ (United Nations, 2007).  
97

98 Measuring inclusion might be said to be an even more boundless than accessibility, and there is certainly no agreed  
99 method (Neely-Barnes & Elswick, 2016). Taken together, lack of clarity about the concepts of accessibility and inclusion  
100 poses significant difficulties when applied to the task of defining the characteristics of an accessible and/or inclusive city.  
101 Without clear goals and baseline assessment, the achievements of both Bunbury and Geelong would be difficult to  
102 compare against other cities. However, both projects recognised the need to turn attention to uncovering the often  
103 hidden and complex dynamics of decision-making that were leading to inaccessible and discriminatory design outcomes  
104 in the first instance, and identifying key strategies that will facilitate lasting structural and cultural change.  
105

## 106 **2. Background**

### 107 *2.1 Models of Disability*

108 People with disabilities have been often felt stigmatised and segregated from the rest of society, mainly due to pervasive  
109 negative societal attitudes and barriers encountered in the built environment (National People with Disabilities and Carer  
110 Council, 2009). As we shall summarise here, the root of such discrimination originates in the way disability has been  
111 socially and culturally constructed through public discourse over the past 100 years.  
112

113 During 19th century, disability was largely constructed as personal tragedy or the result of some moral transgression.  
114 Disability was considered a burden to be endured, and even a eugenical threat to society (Mathieson et al., 2008). The  
115 dominant charitable response to disability was through the benevolent provision of institutional care (e.g., convalescent  
116 homes) for physically “disabled”, and asylums for the mentally “impaired”. The charity model, which typically involved  
117 forms of dislocation from one’s family and community, led to people with disabilities being kept ‘out of sight, out of  
118 mind’. Effectively, this removed any pressure from designers of the public realm to provide accessible or inclusive  
119 environments outside of the specialised institutions provided for people with disability (Imrie & Imrie, 1996; Kitchin,  
120 1998; Mathieson et al., 2008).  
121

122 Two world wars at the start of twentieth century saw rapid advancements in medical technologies, and a conversion or  
123 redevelopment of asylums into hospitals. The medical model offered people with impairment the hope of rehabilitation  
124 or recovery, and saw a massive rise in numbers of people with permanent disabilities effectively incarcerated. From the  
125 1960s Western governments began to re-integrate people with disabilities back into their families and communities,  
126 leading to the widespread closure of institutions (Carling-Jenkins, 2014; Cocks, 1996). However, after being locked in for  
127 so many decades, many people with disabilities found themselves locked out of society due to the overwhelming  
128 prevalence of physical and attitudinal barriers—even up to the present era (National People with Disabilities and Carer  
129 Council, 2009).  
130

131 The United Nations (UN) began articulating the rights of people with disability from 1975, aiming to highlight their needs  
132 in economic and social planning, in particular their right to a quality of life equivalent to the rest of the society (United  
133 Nations, 1975). In 1981, the UN raised concerns around the global phenomenon of inaccessible city scapes, and began to  
134 develop strategies for removing physical and social barriers to full participation in the community (United Nations, 2004).  
135 The social model of disability, developed from the late 1970s through to the 1990s, reframed the problem of disability by  
136 challenging charitable and medical model discourses that constructed disability as resulting entirely from personal  
137 tragedy or individual impairments. The social model instead critiqued the cultural and structural shortcomings in society  
138 that compound impairment, and even create it. Social model proponents argued that people experience impairment as  
139 a normal, expected condition of life, but that they become ‘disabled’ by society when barriers manifest in the form of  
140 physical barriers and attitudinal prejudices. The social model strongly influenced the creation of Australia’s first National  
141 Disability Strategy (2010-2020), which aimed to unite State and Federal Governments in the purpose of removing barriers  
142 to a full and inclusive life for citizens with disability (Australian Department of Social Services, 2011).  
143

144 More recently, the universalist model of disability, as an evolution of the social model, has defined ability in terms of a  
145 diverse spectrum, challenging the common binary of “disabled” and “non-disabled” (Bickenbach, Chatterji, Badley, &

146 Üstün, 1999). This shift has had significant implications for public design (Bickenbach et al., 1999) by positioning diversity  
147 as a core consideration for all design projects rather than an adjunct, and adding an imperative to carefully consider the  
148 full-spectrum of human abilities and limitations in all public design (Australian Network on Disability, 2015).

149  
150 *2.2 Disability participation in built environment design*

151 According to Owens, no policy should be developed or course of action taken without the full and direct participation of  
152 those who will be affected (Owens, 2015). People with disability should therefore be actively involved in design-related  
153 policy developments and decision-makings that enable them to defend their rights and lifestyles (Baum, MacDougall, &  
154 Smith, 2006). Accordingly, researchers, architects and urban planners have highlighted the need to foster participation  
155 in urban design by people with disability. It is argued that the presence of people with disability in informing the design  
156 of the built environment will mitigate the adverse stereotyping of disability, and promote wider cultural and social  
157 acceptance of disability as a normal human condition (Nirje, 1985; Wolfensberger et al., 1972), and in turn lead to  
158 empowerment (Taket et al., 2013).

159  
160 Out of new conceptions of disability as diversity have come strong advocacy for new approaches to built environment  
161 design for disability. Two commonly advanced approaches are worth describing here for their prominence in the results  
162 of the research described in this paper: Universal Design, and co-design.

163  
164 Universal Design (UD), also known as ‘inclusive design’, ‘design for all’, ‘accessible design’ and ‘barrier-free design’  
165 (Persson, Åhman, Yngling, & Gulliksen, 2015), is defined as “the design of products and environments to be usable by all  
166 people, to the greatest extent possible, without the need for adaptation or specialized design” (Mace, 1991). The message  
167 behind universal design is that the full range of human diversity can, and therefore should be anticipated in design, and  
168 that public designers should seek to educate themselves about the spectrum of human abilities (Steinfeld & Maisel,  
169 2012), and ‘learn from the margins’ (Rappolt-Schlichtmann & Daley, 2013). Despite growing acceptance of UD principles,  
170 their use in practice is still in its early stages (Steinfeld & Maisel, 2012).

171  
172 When people with disability are partners in the process of designing public spaces, via processes known as co-design or  
173 participatory design, public design becomes a natural expression of an inclusive and participatory culture. Such co-design  
174 is described as a ‘reflexive dialogue’ where the designer is able to shift the existing scenario into an optimal scenario  
175 (Sarmiento-Pelayo, 2015) – a process leading to trust, dependability, and increased social capital (Ho, Ma, & Lee, 2011).  
176 Yet there are obstacles to the inclusion of people with disability in design, such as their social isolation, their long history  
177 of oppression, and inaccessible urban environments, to name only a few. Moreover, Cook (2002) suggests that people  
178 with disability are perceived as ‘hard to reach’, not because of their impairments, but because of the unwillingness of  
179 authorities to involve them in decision-making processes in the appropriate manner.

180  
181 **3. Method**

182 *3.1 Principles and methodology*

183 Both research teams, faced with a lack of external benchmarks of accessibility and inclusiveness, turned to the people in  
184 their target communities to identify what needed to be improved and how. Participatory Action Research (PAR) provided  
185 a methodological starting point to inform approaches to data collection from these stakeholders. PAR positions the  
186 traditionally powerless and oppressed as researcher and activist, engaged in a concurrent process of learning, sharing,  
187 and influencing.

188  
189 In Bunbury, the study used PAR to investigate the facilitators of disability access in local government by facilitating the  
190 involvement of people with lived experience of disability as co-researchers. Over a period of 12 months, the team of co-  
191 researchers formulated research questions and engaged in deliberative dialogue with key design decision-makers  
192 working at the City of Bunbury local government authority, around how the organisation’s culture, policies and practices  
193 shaped access and inclusion. They then produced a report containing several recommendations for embedding Universal  
194 Design and co-design into the organisation as commonly accepted practice.

195

196 Similarly in Geelong, an emancipatory and inclusive research approach provided a conceptual, ethical and methodological  
197 starting point that necessitated the inclusion of people with disability throughout. This ensured that the issues examined  
198 were those identified by people with disability and that the outcomes would be owned by and more easily translated to  
199 inform social change by people with disability themselves. The harnessing of such a collective impact approach to  
200 systems-thinking was in line with the use of systems thinking to frame community-based participatory research to  
201 address complex health issues as well as to enhance the study of neighbourhood functioning (BeLue, Carmack, Myers,  
202 Weinreb-Welch, & Lengerich, 2012). The methodology offered three key advantages: (1) directly sharing knowledge and  
203 experience between people with and without lived experience of disability on the barriers to accessibility and inclusivity;  
204 (2) allowing diverse stakeholders to generate a mutually agreed plan of action for overcoming city-scale obstacles to  
205 accessibility and inclusivity; and (3) maximising sustainability of change through collective impact, by providing  
206 opportunity for positive attitude shift towards disability in the process of conducting the research.

### 207 208 3.2 Data collection and analysis

209 Two modes of primary data collection were used in Geelong: systems thinking workshops that used the STICKE (Systems  
210 Thinking in Community Knowledge Exchange) tool, and focus groups with people with lived-experience of disability.  
211 Trained researchers guided participants through a series of activities to examine the interdependent causes and effects  
212 of a given problem. Meadows' (1999) framework of leverage points in systems analysis was used to evaluate the priority  
213 actions identified in the STICKE workshops from most to least effective. Actions were synthesised into themes via use of  
214 Malhi et al.'s (2009) 'intervention level framework.' Here, Meadows's 12 leverage points were collapsed into five  
215 corresponding intervention levels – paradigm, goals, systems structure, feedback and delays and structural elements –  
216 to rank priority actions from most effective to least effective. Participants were asked their views on the feasibility  
217 evaluations made in the STICKE workshops, as well as with the leverage points analysis. This process allowed participants  
218 with a range of abilities to assess the analytical process performed by the research team and assess the wider stakeholder  
219 evaluations made in the STICKE workshops.

220  
221 In the Bunbury project, data collection involved the recording of facilitated dialogue between participants using a method  
222 known as 'appreciative inquiry', to identify current experiences of barriers encountered within the urban landscape and  
223 the how the City's design culture and practices were contributing to creating or eliminating barriers. This occurred over  
224 a 12 month period. The results were analysed using Framework Analysis, a form of 'thematic analysis' or 'qualitative  
225 content analysis' (Ward, Furber, Tierney, & Swallow, 2013), to identify thematic links and associations in the qualitative  
226 data, examine relationships between different parts of the data, and draw descriptive and/or explanatory conclusions  
227 clustered around themes (Gale, Heath, Cameron, Rashid, & Redwood, 2013). The themes identified via the process were  
228 used to guide further inquiry in an iterative process, and to articulate key findings and recommendations.

### 229 230 3.3 Stakeholders/Participants

231 In Bunbury, two key participant groups were identified: *Co-researchers* (people with lived experience of disability) (n=11);  
232 and *City Informants* (City of Bunbury employees or Councillors with influence over public design decisions) (n=32). The  
233 Co-research group was made up of six people with disabilities, three parents of people with disabilities, and two support  
234 workers, making eleven participants altogether. All group members had lived experience of physical, sensory or cognitive  
235 impairments resulting from spinal injury, stroke, learning difficulty, autism, low vision, or cerebral palsy. City Informants  
236 were City of Bunbury employees occupying positions ranging from CEO to on-the-ground technical officers, who held  
237 decision-making power in relation to urban development or redevelopment, and associated services.

238  
239 In Geelong, stakeholders from a range of backgrounds were recruited. The sample was necessarily diverse, including  
240 people with a range of ages, professions, and abilities. Participants in the STICKE workshops (n=49 in total across three  
241 workshops) were drawn from disability support organisations, existing service providers and key government personnel.  
242 Three focus groups were held with a mix of persons identifying as having a disability and living with a range of physical,  
243 cognitive and sensory impairments. The process was informed by best-practice principles aiming to overcome many  
244 barriers that have traditionally excluded people with disabilities from research: carefully considering the varied  
245 accommodation needs of the participants; positive attitudes and an inclusive stance on the part of the researchers (Kroll,  
246 Barbour, & Harris, 2007). Each focus group was made up of members of the local community: a customer reference group



247 for a disability support provider with 12 participants; six local members of a support group for survivors of stroke and  
 248 acquired brain injury; and seven representatives from a project taskforce set up from the beginnings of the project to  
 249 regularly advise the research team.

250

#### 251 **4. Findings**

252 At Geelong, the findings from STICKE workshops and focus groups were brought together into groups of nested actions  
 253 addressing obstacles aligned to different leverage points in the complex system which might deliver city-scale accessibility  
 254 and inclusivity. Identified were 5 Principles of Action, 6 prioritised actions and 28 interrelated actions grouped according  
 255 to their alignment with each of the Priority Actions. Importantly, none of the actions identified can occur effectively in  
 256 isolation, because they can only overcome systemic lassitude by being implemented in combination at different leverage  
 257 points in the system.

258

259 At Bunbury, it was found that certain accepted policies and practices resulted in a frequent disregard of Universal Design  
 260 in urban development processes. This was undermining efforts to achieve the stated goal of becoming the Most  
 261 Accessible Regional City in Australia (MARCIA). The researchers concluded that the City lacked sufficient and ongoing  
 262 training for staff in UD principles, lacked mechanisms or trigger points for engaging people with disabilities in co-design,  
 263 and lacked certain measures to safeguard UD such as fit-for-purpose design policies, the engagement of external  
 264 technical consultants with expertise in UD, and the benchmarking of best practice outcomes involving UD. These deficits  
 265 resulted in inconsistent and unpredictable outcomes in terms of UD in the urban landscape, with too much discretion  
 266 afforded to staff members with responsibility for such outcomes. The lack of such safeguards undermined community  
 267 efforts to educate and collaborate with the City, especially when sympathetic staff members moved on to other roles or  
 268 left the organisation, or if disability access and inclusion became a low priority for department managers.

269

270 Comparison of the recommendations of both studies is presented in Table 1.

271

272 **Table 1.** Recommendations of Studies in Bunbury and Geelong

<b>Aspects</b>	<b>Bunbury</b>	<b>Geelong</b>
Co-Design	Enable people with disabilities in decision-making about public infrastructure through co-design	Co-design as valuable and impactful method to achieve complex aspirational goals
Universal Design	Universal design as an important and relatable concept to revolutionise public design	Universal design as a means of overcoming access inequalities to built environment
Benchmarks	Develop best practice benchmarks for similar design contexts	Establish benchmarks for Geelong to become a world-class accessible and inclusive city
Incentives/ Accreditation	Incentives for achieving beyond minimum standards  Information and assurance to the public through accreditation	Incentives for achieving increased accessibility  Recognise best practices of world-class levels through accreditation
Employment/ Economic Participation	Equal employment opportunity policy in place with innovations in employment and progress towards the MARCIA aspiration	Engage people with disability to identify current barriers to participation in employment and the economy

273

274

#### 275 **5. Discussion**

276 According to the findings of both studies, becoming an accessible and inclusive city requires lasting structural and  
 277 attitudinal change that proactively fosters equitable access to, and participation in, the social and economic life of the  
 278 city for all. City-scale accessibility evaluation should include both quantitative and qualitative (user-centred) indicators of  
 279 mobility, proximity, transportation system connectivity, affordability, convenience and social acceptability. Measuring  
 280 inclusiveness is even more elusive than measuring accessibility and entails multiple indicators across each of the five city

281 domains. As with accessibility, the measurement of inclusiveness should include user perception and go beyond a focus  
282 of 'being present here' to one of 'belonging here'.  
283

284 While prioritising accessibility and inclusivity at a city scale necessitates a solid understanding of existing conditions, the  
285 measurement of these conditions remains elusive. Unfortunately, Universal Design, a framework that promises a user-  
286 centred perspective, is currently not measurable via recognised tools at either a building or city scale. An analysis by the  
287 Geelong study of documented initiatives revealed few concrete, measurable recommendations, timelines, evaluative  
288 criteria and/or budgets related to accessibility, with poor integration across initiatives, duplication and gaps in coverage.  
289

290 It was recognised that work is urgently required to engage people with disability at the planning, implementation and  
291 evaluation stages of future urban development projects. Such actions hold the promise of a more sustainable outcome,  
292 by positioning people with lived experience of disability as collaborators and co-designers. Both studies acknowledged  
293 that the two regional cities have the imperative, opportunity and clear capacity to provide exemplary access and  
294 inclusion, but that leadership in these areas will require these government and other key stakeholders to work directly  
295 with people with disability to identify current gaps or barriers, and to develop best practices to overcome these barriers.  
296 This is founded upon a theoretical framework of inclusion that: (1) builds on social model ideas about addressing disability  
297 barriers; (2) extends beyond spatial and place-based conceptions of inclusion to add a relational context; and (3) positions  
298 collective impact approaches for the continued research, implementation and evaluation of actions.  
299

300 The Bunbury study developed a new model of 'universal public design' to address the limited applicability of current  
301 definitions of UD to public realm design (see Center for Excellence in Universal Design, 2014; Mace, 1991), which typically  
302 describe the *outcome* of design rather than the *process* by which it might be achieved. By problematising the process,  
303 the focus is shifted away from evaluating design outcomes that tend to be context-specific, subjective and relative to an  
304 individual's impairment, towards an evaluation of the process by which the design is achieved. The argument is that a  
305 more rigorous process of public realm design – one that contains safeguarding measures for UD – will help to eliminate  
306 barriers at the planning stage rather than after the fact. The specific safeguards that constitute the model of universal  
307 public design are (1) ongoing training in U.D. and disability awareness; (2) contracting U.D. technical support specialists  
308 for complex public design work; (3) rigorous documentation of best practice benchmarks for UD; (4) enhanced policies  
309 and procedures related to UD (including checklists, reporting and accountability mechanisms); and (5) regular  
310 engagement of people with disabilities as design partners (co-design).  
311

312 The study emphasised the importance of all five steps in maintaining the integrity of the universal public design process,  
313 but places most emphasis on co-design. Likewise, the Geelong study emphasises co-design in Recommendation 1.1 and  
314 1.5. This is rooted in the participatory action research principles upon which both studies were founded, whereby those  
315 most affected by the issue at hand (people with disabilities) are empowered to participate as collaborators and equals in  
316 the process of inquiry, and to control the production of knowledge and its application. This is of critical importance  
317 because, historically, people with disabilities have been brutally excluded from discussion and decision-making about the  
318 shape of the world around them. Their expertise, distilled from years of overcoming barriers in the urban landscape on a  
319 daily basis, must be brought into dialogue with other more recognised forms of expertise, so that they can influence and  
320 control the outcomes that follow. Co-design follows this logic, and offers a place at the design table for people with  
321 disabilities alongside those with other forms of expert knowledge who help shape design decisions.  
322

323 Cited within the Bunbury study, Rob Imrie notes that most writings about design reinforce a concept of the end user as  
324 "a remote figure, external to the professional fields of the [designer], and conceived of as an object to be "acted on"  
325 rather than embedded into the design process" (Imrie, 2012, p.878). The Bunbury study found that, despite being  
326 ubiquitously present amongst the end-users of all public realm design, people with disabilities are largely excluded from  
327 the development process. Perhaps because they are highly diverse in terms of impairment, or 'hard-to-reach' owing to  
328 circumstance, people with disabilities are often treated as a 'niche' or minority group to be consulted only if the design  
329 brief specifically calls for it. Somewhat compounding the issue is the existence in Australia of minimum design codes for  
330 accessibility in built environments, producing the unintended effect of 'compliance mentality' in which compliance with



331 any specified minimum design codes is deemed sufficient for addressing public access and inclusion needs – negating in  
332 some minds the need for further consultation or co-design.  
333

334 Much emphasis is placed on the central importance of co-design in the Bunbury study. It is argued that achieving UD is  
335 critical to the success of every public realm design project, and that to achieve it, designers must engage in meaningful  
336 dialogue with those with lived expertise. The nature of this dialogue should be more than consultation, which engages  
337 stakeholders for a brief period and does not change the power relations between the two parties. Instead, the co-design  
338 should create multiple opportunities for ongoing exchange of expertise to ensure that UD aspirations are identified in  
339 the development stages, and integrated into the finished design as faithfully as possible. The Bunbury study recognises  
340 the challenges of successfully facilitating co-design in a local government context, and argues that skilled facilitation is  
341 critical to the process. The study suggests that those working in community development and public relations type roles  
342 are probably best suited to the work of facilitation, with appropriate training and support. It is also suggested that clear  
343 signals be sent from the leadership team about the organisation’s expectations of their employees in respect to co-design,  
344 including the implementation of policy measures, training support and performance indicators.  
345

346 Design culture is analysed, with the conclusion (drawn from the work of Robyn Eversole) that design is a social process,  
347 and those responsible for it (development practitioners) should not view themselves as the “sole architect of change”,  
348 but rather its “catalyst” working with “a broad range of social actors” who constitute a “largely untapped resource” in a  
349 “complex social landscape” (2012, p.133). Eversole argues that all design workers “must have the skills to work with a  
350 broad range of social actors to build relationships and mobilise resources for change” (2012, p.133), and therefore they  
351 will need to be trained not just in UD, but also in how to engage end-users with disability in co-design. Such a change in  
352 design culture represents a challenge to the ‘new public management’ paradigm in which the power base of leaders and  
353 decision-makers is rooted in their expertise and authority, and which has effectively “disempowered citizens by  
354 positioning them as individualised consumers at the end of a long supply chain” (Ryan, 2012, p. 322). Furthermore, it is  
355 recognised that co-design cannot succeed as a mainstream practice without changes to funding frameworks, policy  
356 frameworks, workforce skill levels, and an embracing of technologies such as online engagement.  
357

358 The Geelong study provides some specific examples of policy measures that could be implemented to enhance access  
359 and inclusion in the built environment, including a new Access and Inclusion Policy embedded within the Principal  
360 Planning Framework, a review of the Apartment Design Guidelines for Victoria, a new decision-making criterion regarding  
361 access for all abilities, and the implementation of a new Local Planning Policy. The study recommends other safeguards  
362 such as the establishment of an S.151 Advisory Committee Access and Inclusion in the Victorian Planning System, and  
363 employing a high profile disability advocate to engage policy makers. The study also broadens the scope to transport and  
364 housing, which are typically controlled by the State Government, and recommends better resourcing to address current  
365 gaps, as well as taking a planned approach to auditing, shortlisting, and rectifying significant barriers (in collaboration  
366 with people with disabilities)  
367

368 Both studies recommended that organisations work to identify and cultivate champions for access and inclusion,  
369 including from within the organisation and within the community. These champions would work to promote values of  
370 inclusion and collaboration, and provide training and guidance around UD.  
371

## 372 **6. Conclusion**

373 Geelong and Bunbury exist as microcosms of the broader Australian urban landscape, and present with typical challenges  
374 from a UD point of view. This comparison of the two independent studies has highlighted the complex interplay of factors  
375 that impact UD and social inclusion outcomes, including leadership, design culture, and design safeguards. Lasting  
376 structural and attitudinal change is required to overcome the current state of play, in which people with disabilities are  
377 distanced from the design of the world around them, and treated as an aberration or special interest group, rather than  
378 as part of the ‘norm’ or ‘mainstream’. Access and inclusion for all are fundamentally a design challenge that will involve  
379 explicit strategies on the part of governments and the design community to embed co-design, and strengthen UD  
380 safeguards. Similarly, stronger leadership is required from all levels of government to promote UD through policy  
381 development and cultural change.

382

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449 **Conflict of Interests**

450 The authors declare no conflict of interests.

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