How Can Youth Relevant Design Compliment Crime Prevention Through Environmental Design within Christchurch City

University of Canterbury

GEOG309 - Research for Resilient Communities

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Executive Summary

- Youth are often undermined in the design process of urban space. It is crucial to understand their needs and perspectives when designing spaces for the future.

- This study explores how youth-relevant design can complement Crime Prevention Through Environmental Design (CPTED) within Christchurch City.

- We aim to gain insights into the interception of the two concepts, along with the awareness of youth-relevant design amongst planning professionals.

- Research was conducted through qualitative methodologies such as interviews, focus groups, and secondary data analysis.

- We found significant overlap and conflicting factors between youth perspectives and CPTED principles.

- We created an infographic tool designed to bridge the gap between CPTED and youth-relevant design for planning professionals' reference.

- Our research established that it is essential to have a balanced approach to design by engaging youth early in the process and continuing engagement throughout.

1. Introduction

Youth account for approximately 18% of Christchurch's population (StatsNZ, 2023). Despite this, urban planning decisions often overlook their needs and perspectives. This research seeks to address how youth-relevant design can complement Crime Prevention Through Environmental Design (CPTED) in creating safer and more inclusive spaces for youth in Christchurch. The relevance of a youth's perspective on urban planning can be drawn out through the United Nations Convention on the Rights of the Child, Article 12, which specifies that children and young people have the right to express their views freely in all matters affecting them (United Nations, 1990). Additionally, the recent UN Pact for the Future, Youth and Future Generations 2024, highlights the importance of including youth in decision-making through Actions 35 and 36, strengthening "meaningful youth participation at the national level" (United Nations, 2024).

Since youth are limited in their influence and power over decision-makers, it raises the question of how we are incorporating youth voices into the decision-making process. This research intends to facilitate informed decision-making about crime prevention through environmental and youth-relevant design. It offers insights into how the two principles complement each other and the tensions between them, along with indicating the awareness of youth-relevant design among Christchurch's planning professionals.

Our report utilises qualitative methodology, which includes interviews, focus groups, and the analysis of existing audit reports provided by our community partner, ReVision.

2. Key Concepts

2.1 Definition of Youth

It's important to note that 'youth' is a broad term that can vary in age range depending on the country and context. In this review, 'youth' refers to individuals aged 12 to 24, defined by the Ministry of Health (2024).

2.2 Crime Prevention Through Environmental Design (CPTED)

CPTED principles are internationally recognised within urban design and policy frameworks for their effectiveness in crime reduction (Cozens & Love, 2015). These principles are executed in the design and manipulation of an environment to increase safety, awareness, sense of belonging and appeal (Armitage, 2018). For the purpose of this research, we have decided to focus on these five key principles: Natural Surveillance, Access Control, Territoriality, Maintenance or Image, and Activity Support.

Natural surveillance enhances visibility and observation to deter crime, while access control uses barriers and layout to restrict entry. Territoriality targets residents' sense of ownership and responsibility to encourage guardianship of an area. Maintenance or image promotes regular upkeep, signalling active use and care. Lastly, activity support promotes legitimate activities to increase presence and surveillance, making spaces less attractive to criminals (Cozens & Love, 2015).

2.3 Youth Relevant Design

The concept of youth-relevant design prioritises youths' social, physical, and experience-based needs in designing spaces, ensuring that areas are safe, welcoming, and practical (Evans, 2007).

3. Literature Review

3.1 Crime Prevention Through Environmental Design and Youth Perspective

CPTED principles have been widely acknowledged for their effectiveness in reducing crime, establishing an important place in modern urban design and policy (Cozens & Love, 2015). These include four foundational principles outlined by Jeffrey (1977): natural surveillance, access control, territoriality, and maintenance/image. Additionally, we include activity support as a fifth principle due to its relationship to youth (Cozens & Love, 2015). Ferrell (1997) emphasises the importance of urban spaces on youth identity formation. Heavy surveillance and access control can contribute towards anxiety development in youth (Lamoreaux & Sulkowski, 2020), whereas legitimate activity support assists youth with integrating into the community (Cozens & Love, 2015). Youth perceptions of safety can also be amplified through natural surveillance (Vagi et al., 2018; Lamoreaux & Sulkowski, 2021).

Existing literature has also assessed CPTED implementation across various urban and suburban locations, with two examples in Sweden and Iran (Askari & Soltani 2023; Iqbal & Ceccato, 2016). Both articles found significant relationships between CPTED principles and crime rates, with lower crime rates occurring in areas that reflect CPTED. Additionally, CPTED implementation was identified as effective in reducing the number of robberies in a historically high crime environment (Castell & Peek-Asa, 2023).

3.2 Youth Relevant Design

Youth-relevant design progression is vital in the intergenerational approach to urban planning. Literature found that successful cities and communities integrate young people's perspectives into decision-making, planning, and policymaking (City of SURREY, the Future Lives Here, n.d.). Abbott-Chapman and Robertson (2015) identified that youth-relevant design implementation must include community support, accessibility, and physiological support, such as available youth workers.

Specific tools and strategies were recognised to engage youth in meaningful connection. A report for positive youth development in Aotearoa (2021) highlighted the importance of the six C's: connection, confidence, character, caring, contribution, and competence, as seen in Figure 1. While others emphasise civic engagement and advocacy, towards youths' engagement in meaningful community changes (Action Station & AraTaiohi, n.d.).

Figure 1. The 6 C's of Positive Youth Development (Positive Youth Development in Aotearoa, 2021)

3.3 Ecological Design

Nissen et al. (2020) identified two key factors in Sustainable Development Goal 11 that are directly related to young people. These factors are transport and greenspace. Greenspace is recognised as a contributing factor to youth well-being, although this relationship is complex and dependent on sociodemographic factors, such as neighbourhood safety (Zhang et al., 2024). Additionally, amplified greenspace influences perceived safety and negatively correlates with violent crime (Garvin et al., 2013; Stevens et al., 2024). This demonstrates that ecological design, CPTED and youth-relevant design are all interrelated and should be studied and applied in consideration of each other.

The methodology utilised in these papers helped to shape our research project. Nissen et al. (2020) and Garvin et al. (2013) both conducted interviews to gain in-depth qualitative primary data. However, Garvin et al. (2013) also found secondary data analysis useful for gathering extra data in a short time frame, much like our project. Garvin et al. (2013) collated data provided by the Philadelphia Police Department on violent crime in the study location alongside insight from the local community through interviews. This approach served as an excellent research design example for our project.

3.4 Inclusive Design Frameworks

This review examined different design frameworks, such as universal design, inclusive design, and child—and family-friendly design, which all held key themes that prioritised safety, accessibility, and equity (Evans, 2007; Haider, 2007; Witten & Ivory, 2018). It was noted that design frameworks such as accessible and inclusive design looked at safety through a physical lens (Pinna et al., 2021; Preiser & Smith, 2011), while child and family-friendly design often prioritised the psychological and

emotional side of safety, such as not wanting their children to be around areas subject to crime or witness verbal abuse on streets (Krishnamurthy, 2019; Witten & Ivory, 2018)

Although these frameworks generally benefit youth, these principles do not specifically address youth issues. Youth is often lumped into the same category as children and families, where the focus is on either young children or parents. This approach misses the specific needs of this group and creates a social disconnect at a time when connection is essential for healthy development (Ardoin et al., 2014; Johnstone & Schowengerdt, 2022).

4. Methods

4.1 Research Design

This study employed qualitative methods to gather insights from urban design professionals and young people on CPTED and youth-relevant design. Data was collected through interviews, which were analysed alongside public youth audits provided by ReVision.

4.2 Interviews

Our research started by completing our ethical processes and consent forms so that we could contact and interview individuals and correctly store their data. We then identified the key information we wanted to gain to aid in creating our interview questions. This included how our principles complement each other, conflict, and the awareness of youth-relevant design. Interview participants were mainly sourced through Revision's project coordinator, which included planners, urban designers and community advisors. We also reached out to others in similar roles with perspectives of interest.

Overall, we were able to conduct eight interviews and one focus group of three people. These interviews included four Community advisors, three planners, three urban designers, and a youth advisor. The interview took approximately 30-40 minutes and was conducted over Zoom and Microsoft Teams. We aimed to receive answers to a range of questions, the most significant including knowledge of youth-relevant design and CPTED, the barriers and challenges they/their organisation experience when involving youth in their design process, and common and conflicting factors between youth-relevant design and CPTED and the intersection between the two (Appendix A).

Our analysis of the interview questions included using the transcriptions created from the interview via Microsoft Teams and Turboscribe to fill out a table for each interviewee. Using the headings outlined in Table 1, we combined answers by role and categorised quotes by subheadings and keywords. This led to the development of common and conflicting answers between the interviewees, which we processed to identify key themes.

Table 1. An example of a table used to identify key themes and quotes from the interviews.

Interviewee	Factors to consider	Ecological Design	Collecting Input	Knowledge of YRD	Is Youth Considered	Barriers and Challenges	Knowledge of CPTED	Is CPTED successful	Conflicting Factors	Complem-enting Factors

4.3 Audits

In their audits, ReVision takes groups of young people through sites, or site plans, in Ōtautahi. They gather feedback from their participants on the youth-relevant design aspects through focus groups and scorecards. These sites include urban buildings, urban spaces, recreation centres, parks, reserves and playgrounds. The feedback is categorised into five aspects: safe, appealing, accessible, resourced and youth-friendly. To address our objective of understanding the intersection and conflict between CPTED and youth-relevant design, we conducted a deductive thematic analysis on sixteen audits, involving a total of 119 participants (Appendix B). This involved analysing the youth feedback within the bounds of our chosen CPTED principles: natural surveillance, activity support, access control, territoriality and maintenance. To do this, we identified examples of these principles in each audit. These examples were put into a separate table for each site, alongside any other notable observations and limitations (Table 2). This allowed us to identify common themes throughout the audits.

Table 2. An example of a table used to identify examples of the CPTED principles; Natural Surveillance, Access Control, Territoriality, Maintenance/Image and Activity Support in a youth audit.

Natural Surveillance	Access Control	Territoriality	Maintenance/Image	Activity Support
Notes - Limitations -				

5. Results and Discussion

5.1 Audit Results

Activity Support

Activity Support is a pillar of Crime Prevention Through Environmental Design's (CPTED) framework, which is best utilised when other vital areas of CPTED are implemented, such as regular maintenance and natural surveillance (Cozens et al., 2005). Designing areas with sufficient activity support facilitates regular use and influences people to return and use the space; an example of this is ensuring an area has sufficient seating.

Analysis of ReVision's audits shows that activity support was a recurring theme throughout various spaces. Youth often called for areas to be better utilised with activities that appealed to a broader range of individuals and encompassed both high and low-energy aspects, such as interactive art attractions and calmer spaces for sitting with friends. For example, young people suggested the Hunter Terrance Pump Track could be improved by having more community activities tailored to all, "food trucks could come into the space regularly for the whole community to use" (Hunter Terrance Pump Track Audit, 2022). Similarly, audits for Te Kaha Stadium and the Performing Arts Precent plans revealed that youth favoured aesthetic activity activation supported by art. " It needs to have good photo locations, which include murals, interactive sculptures, and planted areas, especially if they are event-specific. This will turn the stadium into a "must-visit" location" (Te Kaha Audit, 2022). On the other hand, they also recommended calmer spaces "the desire for a quiet, "calming space" was suggested for some young people who may be looking for a place to relax or who have sensory disabilities." (Performing Arts Precinct Audit, 2022) this was reflected in audits for Te Kaha, Tūranga, and the Hornby Centre.

It was interesting to see that youth easily identified areas lacking activity support and linked it to safety, especially at night. The Columbo Street audit mentioned that "many of the auditors expressed that they would only walk through the area when accompanied by friends. To address this issue, the youth auditors wanted to see improved lighting and more foot traffic on the street at nighttime to make it feel safer" (Columbo Street Audit, 2022). This was also reflected in the Cathedral Square audit. There is a strong trend towards using art as an attraction while also fostering a sense of connection to the local area or culture to attract people, this is a good example of activity support and maintenance blending together.

Maintenance

Maintenance/Image emphasises that well-maintained spaces reflect active management and care. The results of our analysis indicate that youth prefer environments that are vibrant, clean, and welcoming. For instance, in the Columbo Street Audit, youth suggested improvements such as "including more colour in the streetscape, such as murals," which would not only enhance vibrancy but also reflect the local culture of Ōtautahi (Columbo Street Audit, 2022). Similarly, audits of Te Kaha Stadium and the Performing Arts Precinct revealed a preference for aesthetic activation through art, with participants noting that these spaces "need to have good photo locations, which include murals, interactive sculptures, and planted areas, especially if they are event-specific" (Te Kaha Audit, 2022). These aesthetic elements contribute to a lively atmosphere that attracts youth, fostering creativity and encouraging foot traffic.

Furthermore, cleanliness is a significant concern for young people; for example, one auditor proposed the formation of a community group to conduct monthly clean-ups, positing that such initiatives would "increase connection, ownership, and pride of place in the local area" (10 Shirley Road Audit, 2021). In addition, recommendations for increased greenery and natural light, such as "increased greenery, colour, and natural light would make the space more inviting," highlight the desire for environments that support well-being (Hornby Centre Plans Audit, 2021). These quotes emphasise the role of maintenance and image in shaping perceptions of safety and community among youth.

Natural Surveillance

Youth made it explicitly clear that well-lit areas increase their feeling of safety. Across all sixteen audits, consistent recommendations were made to improve lighting. For example, the youth auditors at Te Ara Ātea (2023) "agreed that the space would feel safer during [the night] if it was better lit." It was frequently mentioned that this is a particular concern both at night and in outdoor areas. Colombo Street (2022) is an example where safety concerns are exacerbated due to the combination of underdeveloped lighting and the area being outdoors. The auditors on Colombo Street (2022) "wanted to see improved lighting and foot traffic on the street at nighttime in order to make it feel safer." This was mentioned previously, as both natural surveillance and activity support can complement each other to enhance safety in public areas. Additionally, amenities like lighting can achieve the goals of multiple CPTED principles at once. In the Performing Arts Precinct (2022), youth suggested "more lighting solutions for both artistic value and safety considerations to make the space less sinister at night."

The audit analysis also highlighted that young people felt strongly about open space and high visibility. For example, they made "suggestions that lighting could be installed to brighten the area and that trees could be cut back to improve visibility throughout the space" (Parklands Reserve, 2022). Moreover, the youth auditors acknowledged that open space and high visibility made the area feel safer. At Cathedral Square (2022), "the plans performed well in regards to being an open space and well-trafficked, which the youth auditors noted would improve visibility within the space and in turn, safety."

Access Control

Access Control considers the design elements that move people through a place and limit access to restricted areas. Audit trends indicate that young people have conflicting views about the design elements used in transitional areas to avoid loitering. While this is effective crime prevention, it is noted that transitional areas are often used more frequently by youth who wait for transport, friends, or caregivers. Youth frequently perceive these areas as unwelcoming and unsafe, as the Te Kaha audit indicates, "They also noted that the venue will need to have transition areas for young people who may be waiting for a ride or cannot leave such events straight away. These areas will need to be monitored by staff, sheltered from the elements and well-lit so that they are safe for young people to use, especially at night." (Te Kaha, 2022), this was also reflected in the audits for the Bus Interchange and Pakorakiore Recreational Sports Centre. The bus interchange was identified as unwelcoming to youth as crime preventative measures were heightened during after-school hours, "In particular, they noted that the presence of security guards felt pre-emptive of youth misbehaving. This led to the young people feeling unwelcome in the space and as though they

were problematic patrons who were perceived differently compared to other users of the space."
(Bus Interchange, 2022).

Territoriality

Territoriality aims to clearly define who a space belongs to through its design elements (Jeffrey, 1977). It is a principle of CPTED that goes hand in hand with activity support; if a space is public, then it should be designed with facilities to support people of all backgrounds, abilities and ages, including young people (Evans, 2007). By implementing this, more people will feel connected to, and take care of, their environment in public areas.

However, young people also require their own spaces to flourish in a community. This was made apparent through the youth audits of community libraries. For example, in Tūranga (2019), "some youth auditors said they wouldn't hang out in the youth area if children were there, so wanted more specific places to hang out." Similarly, in the Hornby Centre Plans (2021), auditors expressed that they wanted to be "at arm's length but within arm's reach," and this could be achieved by the youth space feeling like "part of the community but have a degree of separation and purpose." Similar statements were made in Shirley Library (2021).

Over many audits, youth made frequent recommendations on how to create a community-oriented atmosphere. For example, urban spaces in Ōtautahi could increase cultural richness through "bilingual signage" (Te Kaha, 2022), "including pou whenua in the entranceway" (Linwood Pool, 2021) and seeing "diversity reflected in the staff working in the space" (Hornby Centre Plans, 2021). Community involvement was also a common theme that emerged from youth suggestions. In MacFarlane Park (2021), the young people wanted a community mural wall where they could "showcase their talents and give them a canvas where they would be allowed to do so" to "weave well into the community." A similar recommendation was made in Lancaster Park (2022). Furthermore, youth wanted to see the community come together to take care of public spaces, such as "a community group... to do a clean-up once a month, which would increase connection, ownership and pride of place in the local area" (10 Shirley Road, 2021).

Some places are not designed to be appealing to all groups of people, despite them being public. Youth noticed the presence of hostile design elements such as 'mosquito' devices that emit high-pitched sounds to irritate loiterers" and "hostile signage" with "threatening messages about occupying space" (Colombo Street, 2022). These elements "deterred young people from the space" (Colombo Street, 2022) as well as the targeted homeless people. Youth also noted that some areas felt unwelcoming to them specifically. For example, in Cathedral Square (2022), the auditors suggested including "both past and present" history to allow youth to "create [their] own meaning of the space," and avoid the "emphasis on heritage" feeling "territorially exclusive to young people."

5.2 Interview Results

After analysing transcripts from our eleven participants, we identified four key themes that were common across our responses. These themes included consultation, participation, sense of place & culture and policy & integration.

Consultation

When receiving community input, it was emphasised that the most effective way is through face-to-face communication or workshops. One interviewee stated, "…it is about outreach and relationship building to gather input." This makes the community and youth feel involved and ensures their voices are heard in the design process. In-person community input enables a deeper understanding of the needs of locals, allowing broad demographics to ensure a diverse range of perspectives and increases reliability in answers (Saloniki et al., 2019). An urban planner interviewee highlighted the importance of "prioritising reach to younger audiences, the generations that will be enjoying the spaces".

Participation

A common idea mentioned in nearly all interviews was a lack of youth willingness to participate in the design process. This is because organisations "lack money for incentives" or they "struggle to find time" to engage with youth. One interviewee mentioned that youth involvement is often seen "as an add-on, rather than essential". Many of the professionals interviewed mentioned that time was a barrier to youth participation. Alongside time barriers, there was a trend of youth not being willing to participate; one interviewee went into depth on the importance of having meaningful connections to avoid youth outreach becoming a tick-box activity and highlighted the benefit of approaching organised groups of young people "for direct conversations."

Sense of Place & Culture

Interviewees acknowledged young people need a sense of place and that including homegrown aspects can foster connection and pride for a place. Interviewees also acknowledged that place-based connection, through cultural design aspects and activity, brings spaces to life through social inclusion, "Social cohesion, creating a place that youth can connect with others, there are so many ripple effects to consider". Providing spaces that attract youth and opportunities through building connections and suited spaces ensures that there are "resources available for future generations of Rangitahi," as stated by a planner.

Policy & Integration

There appears to be a lack of policy for implementing youth-relevant design. Throughout our interviews, we noticed a lack of framework for including youth-relevant design processes. This is likely due to planners viewing youth-relevant design as an add-on or tick-box activity. However, most interviewees mention the need for youth-relevant design and its early implementation, as shown in this quote by a community advisor, "Bring young people into that planning stage, instead of making solutions in retrospective." Some planners mentioned they had already used ReVision audits in urban spaces, but often, these audits were conducted after places were built. This proved interesting as an acknowledgement of the audit process needing to be undertaken earlier was evident across interviews.

5.3 The Intersection of CPTED and Youth-Relevant Design

In the audits, young people expressed a clear preference for well-lit, visually appealing spaces that support diverse activities and foster a sense of belonging (Table 3). This clearly demonstrates that young people value CPTED, and there is significant overlap between CPTED and youth-relevant design. The wider literature supports this overlap; for example, Vagi et al. (2018) found that their results of the CPTED School Assessment were correlated with student-perceived safety and violence.
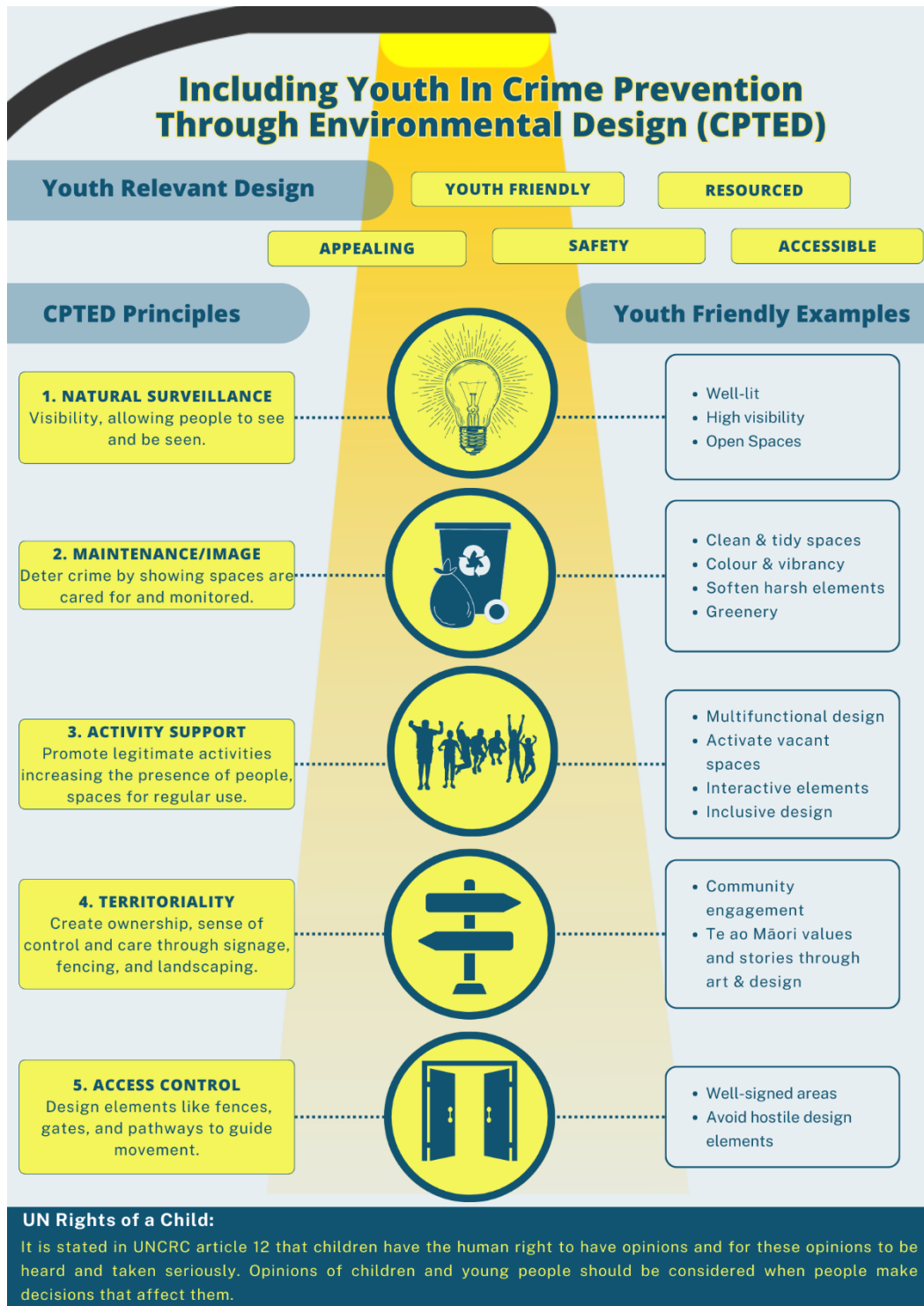
The auditors at ReVision consistently connected their preferences to perceived safety, as well as concerns about anti-social behaviour and crime. All interviewees also agreed that CPTED effectively enhances safety, although many expressed that this is only the case when applied correctly, as poor implementation can worsen safety. Cozens & Love (2017) delve into the "dark side" of CPTED, which includes the severe consequences of misapplying principles such as excessive target hardening, stand-off space and defensible space. This supports the insights provided to us by the interviewees and further emphasises the need for refining design frameworks to prevent poor implementation. One way to ensure CPTED meets its objectives is by gathering input from a diverse range of people, including youth.

After analysis of our interviews and audits, we collated our findings into an infographic (fig. 2). This infographic illustrates the interception between the two concepts. It is designed to advise and be a support tool for professionals to use when designing spaces that are youth-friendly.

Table 3. Quotes from interviews and audits supporting youth-relevant design, CPTED and the intersection between the two.

Youth-relevant design	Intersection	CPTED
Accessibility "The two things young people wanted to change about the library ... was around accessibility and the youth space." – Tūranga "... importance of sensible flooring and ground cover materials ... ensure that the space was accessible for wheelchair users and prams alike." - Hornby Centre Plans **Diversity and inclusivity** " Diversity reflected in the staff working in the space ... feel welcoming to young people from all kinds of backgrounds and walks of life... see the centre honour Te Tiriti o Waitangi and include Māori in all conversations." - Hornby Centre Plans "We use the 8-80 model, designing spaces for someone eight years old to someone 80. Spaces often designed by middle-aged people don't always reflect how younger people would feel in them." – Planner "Consultation page. So, all the projects that we're asking for, community feedback, they go up there, and it's a lot more interactive."- community advisor **Well resourced** "Youth are digital natives" – Youth Advisor "Offer free Wi-Fi throughout the venue" – Te Kaha "Install USB charging ports around the space, potentially under seats" – Te Kaha **Sustainable design & greenspace** "Developing strategies that consider environmental impacts like those on natural waterways" - Planner "Youth tend to go for low-carbon transport options as they don't have access to much else." - Youth Advisor "Climate resilient spaces... I think embed design that also accommodates for biodiversity." – Urban Designer "...the youth auditors were highly supportive of the environmentally friendly plans...but pushed for even more action... reprioritise bikes and pedestrians over cars was a correct move... further action could be made by including grass tram tracks and uncovering streams that used to run in the area." - Cathedral Square	**Safety** "Safety is an intersection between YRD and CPTED, ideally, you'd have respected planners, and a youth representative involved in the process." - Urban Designer "Consider open spaces, public safety, accessibility, and community engagement." – Urban designer "Youth input is acknowledged as crucial." – Urban designer **Visibility** "...Young people wanted to see anti-social behaviour deterrents installed... potentially by installing lights around the space, or possibly a security camera." - Pump track "The plans performed well in regard to being an open space and well-trafficked, ... would improve visibility within the space" - Cathedral Square "...the Interchange was in dire need of increased lighting to make the space feel safer." - bus interchange **Activity support** "A community group could form a clean-up once a month, increase connection, ownership and pride of place in the local area" - Shirley Playground "It's a place that they can connect with others... there are so many ripple effects to consider when working with the community and youth within." - Community Advisor **Well-maintained/ attractive** "When you create vibrancy and activations, they will deter anti-social behaviour." - Colombo St " Area appearing more polished and tidier would reduce anti-social behaviour." - Pump Track "If people were there, it would feel like a safer environment." – Urban Designer "Crime prevention of spaces had a bit more detail and thought" – Urban Designer **Sense of belonging** "There's a lot around identity and belonging, creativity, and ownership of spaces which contributes to the vibrancy." - Community Advisor "Outreach and relationship building is key to gathering input, particularly from groups often excluded from formal design processes" -Community Advisor "Those kids who would have been tagging... can be moved into more positive outlets... no tagging at all because it's homegrown pieces."- Community Advisor	**Hostile design** "...hostile approaches have been used to deter "streeties" from the area... design elements off-putting, ...also deterred young people from the space..." - Colombo St "'mosquito' devices that emit high-pitched sounds to irritate loiterers (used outside Trendz), removing seating areas, and installing hostile signage." - Colombo St **Implementation** "CPTED can be effective if applied in its entirety; improper use can worsen safety." - Planner "Excessive focus on crime can sometimes lead to difficulties in reducing crime and creating nicer places to be." - Community Advisor **Extensive Surveillance** "...the presence of security guards felt pre-emptive of youth misbehaving. This led to the young people feeling unwelcome... and as though they were problematic patrons which were perceived differently compared to other users of the space." - Bus Interchange **Exclusivity** "The emphasis on heritage in the space feels territorially exclusive to young people - we need an invitation to create our own meaning of the space too" - Cathedral Square "...designed for young people to use, but actively seems to deter them from staying any longer than absolutely necessary" - Bus Interchange "Younger people of that age group might not have as much expendable money ... spending more time in public spaces" - Urban Designer "...often CPTED results in young people being pushed out of public spaces, especially Māori, Pacifica, queer ... pushed out of places for the perceived safety of typically middle-class, middle-aged, white people. And often the feeling of safety that people describe is just an absence of young people..." - Community Advisor

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Figure 2. Infographic designed to guide planning professionals on the inclusion of youth-relevant design alongside CPTED in the designing of urban spaces.

Including Youth In Crime Prevention Through Environmental Design (CPTED)

Youth Relevant Design

YOUTH FRIENDLY   RESOURCED

APPEALING   SAFETY   ACCESSIBLE

CPTED Principles

1. NATURAL SURVEILLANCE
Visibility, allowing people to see and be seen.

2. MAINTENANCE/IMAGE
Deter crime by showing spaces are cared for and monitored.

3. ACTIVITY SUPPORT
Promote legitimate activities increasing the presence of people, spaces for regular use.

4. TERRITORIALITY
Create ownership, sense of control and care through signage, fencing, and landscaping.

5. ACCESS CONTROL
Design elements like fences, gates, and pathways to guide movement.

Youth Friendly Examples

- Well-lit
- High visibility
- Open Spaces

- Clean & tidy spaces
- Colour & vibrancy
- Soften harsh elements
- Greenery

- Multifunctional design
- Activate vacant spaces
- Interactive elements
- Inclusive design

- Community engagement
- Te ao Māori values and stories through art & design

- Well-signed areas
- Avoid hostile design elements

UN Rights of a Child:
It is stated in UNCRC article 12 that children have the human right to have opinions and for these opinions to be heard and taken seriously. Opinions of children and young people should be considered when people make decisions that affect them.

5.4 Tensions and Conflicts

Both interviews and audits revealed tension surrounding the negative perception of youth, who are often viewed as 'troublemakers' and have CPTED principles applied to mitigate their presence in urban spaces.

An example of this can be seen in the Bus Interchange and Columbo Street audits, where preventative measures such as a high pitch frequency that only young people can hear are emitted along the sidewalk to prevent loitering. Additionally, the bus interchange has limited group seating that is cordoned off after school when young people are most likely to use the area, making youth feel unwelcome in the city centre (Table 3). This was reflected in the literature where similar accounts of hostile design are implemented against teenagers, labelling them as undesirable or disruptive (Preiser & Smith, 2011).

Another tension we found encompassed young people's desire for additional green space, lighting, and activation of unused areas. Our interviewees acknowledged that they purposefully excluded attention-attracting measures to prevent antisocial behaviour, such as "flower boxes... used as toilets overnight."

This highlights how CPTED is viewed differently and can be linked to implementing hostile design. Youth consistently dislike extensive exclusive measures of access control, natural surveillance, and territoriality, preferring more open, welcoming spaces that encourage community interaction. While professionals recognise this, they often feel pressured to implement security-driven designs, creating tension between the balance of safety and freedom.

5.5 Youth Engagement

Youth engagement was the final concept that emerged from our findings. Both interviewees and auditors expressed the importance of youth input in the planning process (Table 3); this supports the idea that successful urban designs require active youth participation to foster safety, inclusivity, and a sense of belonging (Abbott-Chapman & Robertson, 2015).

One Community Board Member noted the importance of consulting with youth "in a way that's interesting for them and makes them feel like their voices are heard." This aligns with an overarching theme across audits; that professionals should "continue to engage with young people to evaluate programs and practices... [to] ensure that the space remains youth-friendly, as the needs and interests of young people evolve over time" (Hornby Centre Audit, 2021). The youth in the Hornby audit also suggested in-person consultation alongside a need for additional feedback incentives.

When consulting with youth, gathering diverse perspectives is crucial, as youth do not always share uniform views. For instance, in the Hunter Terrance Pump Track (2022), half of the auditors believed the space catered to youth, while the other half disagreed, highlighting the need to uncover what youth truly value in their environments. Additionally, several interviewees pointed out that making retrospective changes can be costly, reinforcing the need for early integration of youth insights in the planning stages (Table 3).

5.6 Future Recommendations

Considering the aforementioned factors, we recommend engaging with youth from the beginning to ensure their opinions are heard before important decisions are made. Due to the barriers to connecting with youth, this process could be streamlined with virtual QR codes. This would reduce financial barriers to meaningful engagement with youth and increase youth accessibility to provide their opinions.

We also recommend the implementation of a youth-relevant design framework as a standard approach in urban planning. By making this framework more widely known and integrated into the planning process, it ensures that youth perspectives are consistently included.

5.7 Limitations

The analysed audits included a diverse group of young people; however, the report did not include specific demographic variables. Future research should directly consult young people and ensure that ethnic and socio-economic variables are included.

Our interviews and focus group participants come from a wide range of professions. However, due to time constraints sample size was low, with 11 interviewees. As a result, the knowledge and perspectives observed may not reflect all professionals in the planning space.

6. Conclusion

Urban cities such as Ōtautahi should be safe and inclusive for all, including youth. Our research has identified the key areas of youth relevant design that both complement and contrast with the design principles of CPTED. These include the shared values of well-lit, maintained spaces that support legitimate usage for young people. Contrasting factors include the presence of hostile design features, alongside harsh security measures aligning with the existing literature. Through our interviews with professionals in urban planning adjacent roles, we found that professionals often struggled to engage youth due to lack of incentives and interest. It was noted that retrospective consideration is more difficult to execute and less efficient at meeting the needs of youth. We also observed a lack of resources and policy framework that encourages youth inclusion in the planning process, with youth often considered as an afterthought.

7. Acknowledgements

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9. Appendices

Interview Questions:

1. Can you briefly describe your role and involvement in Christchurch's urban design or public safety initiatives?
2. Do you know any specific examples of spaces around Christchurch, such as youth involvement or design initiatives?
3. What do you/your organization believe are important factors to consider when planning/designing urban spaces
4. Is ecological design an important factor that you consider in urban planning?
5. Does your organization receive input and opinions from the community about urban design?
   - If yes, how do you gather that data?
   - If no, who makes the decisions, and what are the decisions based off
6. What do you know about YRD?
7. Do you consider youth in the design process of a space?
   - If yes, is it included in the framework (planning documents, official papers)
   - If no, why
8. Are there barriers or challenges that stop you/your organization from including youth in the design process
   - If yes, what are the barriers or challenges
   - If no, leave it at that
9. Do you have any process in place that mitigates the challenges or barriers?
   - if yes, what process?
   - if no, why not?
10. What do you know about CPTED principles and their applications in the environment?
11. Do you think CPTED meets its objectives of preventing crime and promoting community safety?
12. Do you think YRD and CPTED intercept at any point?
13. Do you think there are conflicting factors between YRD and CPTED?
13. How do you see YRD complementing CPTED in design processes?

Appendix B

Audit Information

Place and Plan	Participants	Age Range	Diversity	Youth Friendliness Score	Net Promotor Score
Urban Buildings					
Te Kaha Stadium Plan, 2022	8	16-24	A broad range of backgrounds, interests and diversity.	35%	-12.5
Performing Arts Precinct Plan, 2022	8	16-22	A broad range of backgrounds and interests in the space. "Included in the audit team were young people who were involved with performing arts and who worked adjacent to the precinct. Also represented were young people who identified as Māori or were of Asian descent."	72%	25
Bus Interchange, 2022	7	14-21	"Amongst the young people were frequent and infrequent users of both the interchange and the wider bus service."	59%	-16.6
Te Ara Ātea, 2023	7	13-15	"Amongst the auditors were young people with a range of lived experiences, including those from within and outside the local area who identified as Māori, Pasifika, or of Asian descent. Within these groups were young people who were frequent library users and others who rarely used it."	82%	43
Turanga Library, 2019	12	13-23	Unspecified	95%	70
Hornby Centre Plans, 2021	7	13-18	Unspecified	99%	50
Shirley Library, 2021	6	12-18	Unspecified	64.5%	-50
Urban Spaces					
Columbo Street, 2022	4	19-24	Similar socioeconomic positioning and backgrounds	34%	-75

Cathedral Square, 2022	7	unspecified	Selected based on their background and interest in the space.	41%	-28.57
Parks, Reserves and Playgrounds					
10 Shirley Road, 2021	6	10-20	Unspecified	42%	-37.5
McFarlane Park Basketball Court, 2021	6	11-20	Unspecified	59.5%	0
Lancaster Park, 2022	13	14-22	Selected based on their background and interest in the space.		
Hunter Terrance Pump Track and Basketball Court, 2022	6	11-23	From the Beckenham and Cashmere area.	48%	50
Parklands Reserve, 2022	12	12-17	"Represented in the audit were young people with a range of lived experiences, many of who were from the local area. The audit also included young people of Māori, Pasifika, and Asian descent."	50.5%	-45.8
Recreation Centres					
Te Pou Toetoe-Linwood Pool, 2021	14	12-21	unspecified	78%	-18.18
Parakiore Recreation and Sport Centre Plan, 2022	9	13-23	"Several sub-cultures of young people were represented, including wheelchair users and Māori, and others with varying interest levels in sport."	75%	11