

Water Views: The Importance of Water on Urban Landscape Preference



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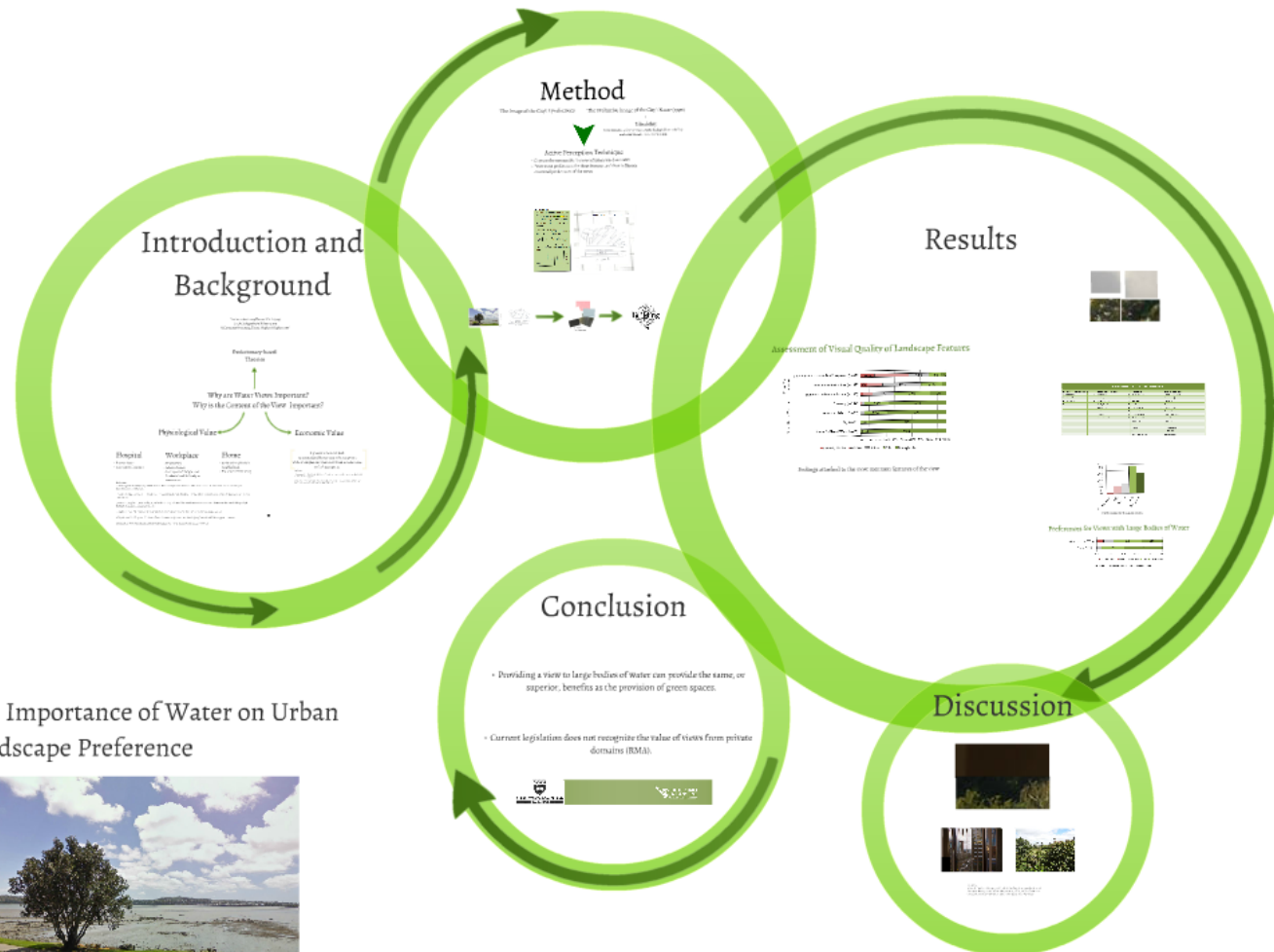
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THE UNIVERSITY OF AUCKLAND
NEW ZEALAND



Research Question: How do large bodies of water affect the quality of window views in Auckland?



Water Views: The Importance of Water on Urban Landscape Preference



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Introduction and Background

Psycho-evolutionary Theory (Ulrich (1985))
Biophilia hypothesis: Wilson (1984)
Information Processing Theory: Kaplan & Kaplan (1989)

Evolutionary-based
Theories

Why are Water Views Important?
Why is the Content of the View Important?

Physiological Value

Economic Value

Hospital

- Recover faster
- Less pain medications

Workplace

- Productivity
- Job satisfaction
- Less report of 'fatigue' and 'headache' and difficulty to concentrate

Home

- Satisfaction with their neighborhood
- The sense of well-being

A pleasant view can lead to a considerable increase in house price; while an unpleasant view could lead to a decrease in the house price.

References:

1. Brookberg, M. (2000). Windows and Offices: A Study of Office Worker Performance and the Indoor Environment. Technical Report, California Energy Commission.
2. Gifford, T., Phipps, M., Jelic, D., & Lohman, C. (2005). Windows in the Workplace: Analysis, Value and Occupational Stress, Satisfaction and Behavior. *Architectural Science*, 30(1), 1-10.
3. Gifford, T., Phipps, M., Jelic, D., & Lohman, C. (2005). The Workplace Window View: A Determinant of Office Workers' Work Ability and Job Satisfaction. *Architectural Science*, 30(1), 1-10.
4. Kaplan, R. (2002). The Sense of the View from Home: Psychological Benefits, Environment and Behavior. *Architectural Science*, 27(1), 1-10.
5. Tappin, N., & Tappin, P. (2002). View and discomfort from windows: Lighting Research and Technology. *Architectural Science*, 27(1), 1-10.
6. Ulrich, R. E. (1985). View through a window may influence recovery from surgery. *Science*, 224(4644), 420.
7. Wilson, E. O. (1984). *Biophilia: The Human Link to the Natural World*. New York: Basic Books.
8. Ulrich, R. E. (1985). *Environmental Psychology: Human-Environment Interactions*. New York: Plenum Press.
9. Ulrich, R. E. (1985). *Environmental Psychology: Human-Environment Interactions*. New York: Plenum Press.
10. Ulrich, R. E. (1985). *Environmental Psychology: Human-Environment Interactions*. New York: Plenum Press.



Co

Evolutionary-based
Theories



Why are Water Views Important?
Why is the Content of the View Important?



Physiological Value

Economic Value

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Evolutionary-based Theories

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1. Heschong Mahone Group. (2003). Windows and Offices: a Study of Office Worker Performance and the Indoor Environment: Technical Report. California Energy Commission.
2. Leather, P., Pyrgas, M., Beale, D., & Lawrence, C. (1998). Windows in the Workplace: Sunlight, View and Occupational Stress. *Environment and Behavior*, 30(6), 739–762.
3. Lottrup, L., Stigsdotter, U. K., Meilby, H., & Claudi, A. G. (2013). The Workplace Window View: A Determinant of Office Workers' Work Ability and Job Satisfaction. *Landscape Research*, 0(0), 1–19.
4. Kaplan, R. (2001). The Nature of the View from Home: Psychological Benefits. *Environment and Behavior*, 33(4), 507–542
5. Tuaycharoen, N., & Tregenza, P. R. (2007). View and discomfort glare from windows. *Lighting Research and Technology*, 39(2), 185–200.
6. Ulrich, R. S. (1984). View through a window may influence recovery from surgery. *Science*, 224(4647), 420.



Economic Value

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References:

1. Samarasinghe, O. E., & Sharp, B. M. H. (2008). The value of a view: A spatial hedonic analysis. New Zealand Economic Papers, 42(1), 59–78.
2. Yu, S., Han, S., & Chai, C. (2007). Modeling the value of view in high-rise apartments: a 3D GIS approach. Environment and Planning B Planning and Design, 34(1), 139.

How can window-view preferences be assessed?



Method

'The Image of the City': Lynch (1960)

'The Evaluative Image of the City': Nasar (1990)

+

Likeability

To be likeable, a feature must 'evoke feeling' (like or dislike)
and must 'stand out as memorable'



Active Perception Technique

- Capture the memorable features of urban window-views
- Determine preferences for those features and their influence on overall preferences of the views

F1. Drawing (Office)

1. By using your memory, could you please sketch or quickly draw the most significant elements of your office window view? What are the most significant features that jump to mind should i.e. a friend ask you about your window-view? (**Don't look out of your window!**)

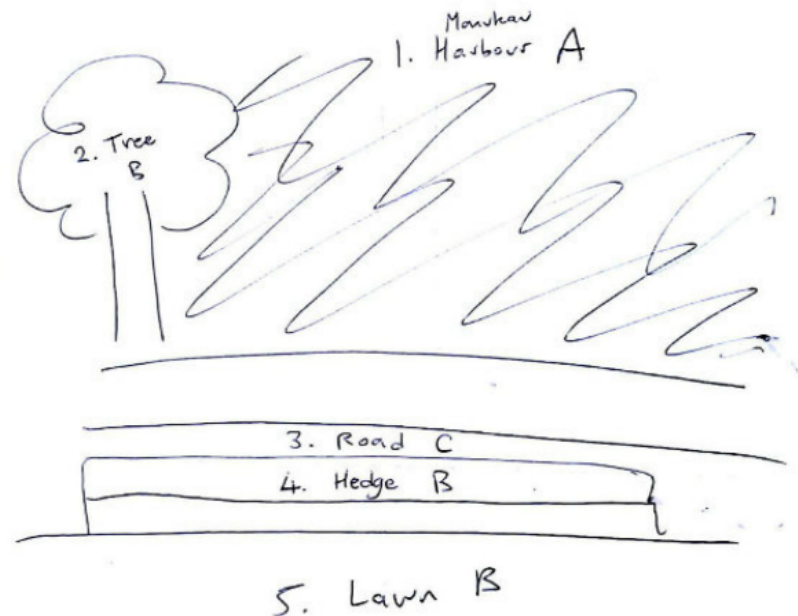
2. Please **rate** your emotional reaction to each feature in the view. ("Strongly Like", "Like", "Not Sure", "Dislike" and "Strongly Dislike")

A	B	C	D	E
Strongly Like	Like	Not Sure	Dislike	Strongly Dislike

3. Please describe your overall feeling about your Office window view and your workplace in general.

	Strongly Like	Like	Not Sure	Dislike	Strongly Dislike
Window view					
Workplace					

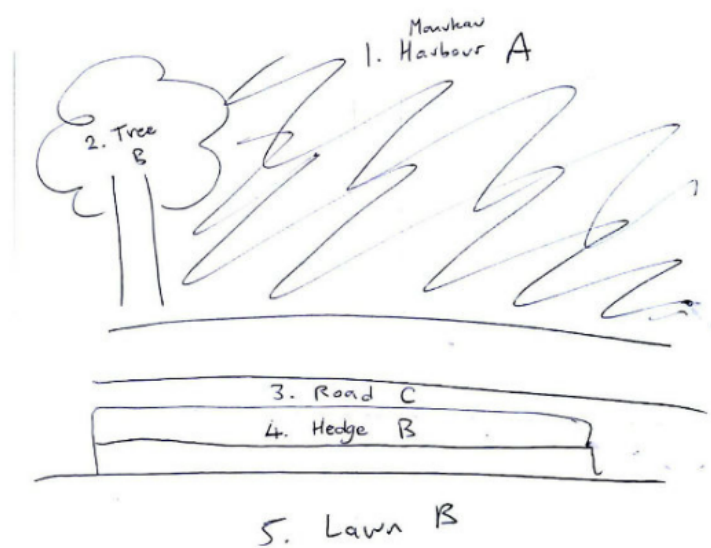
Please **NUMBER** and **LABEL** each element as you draw!

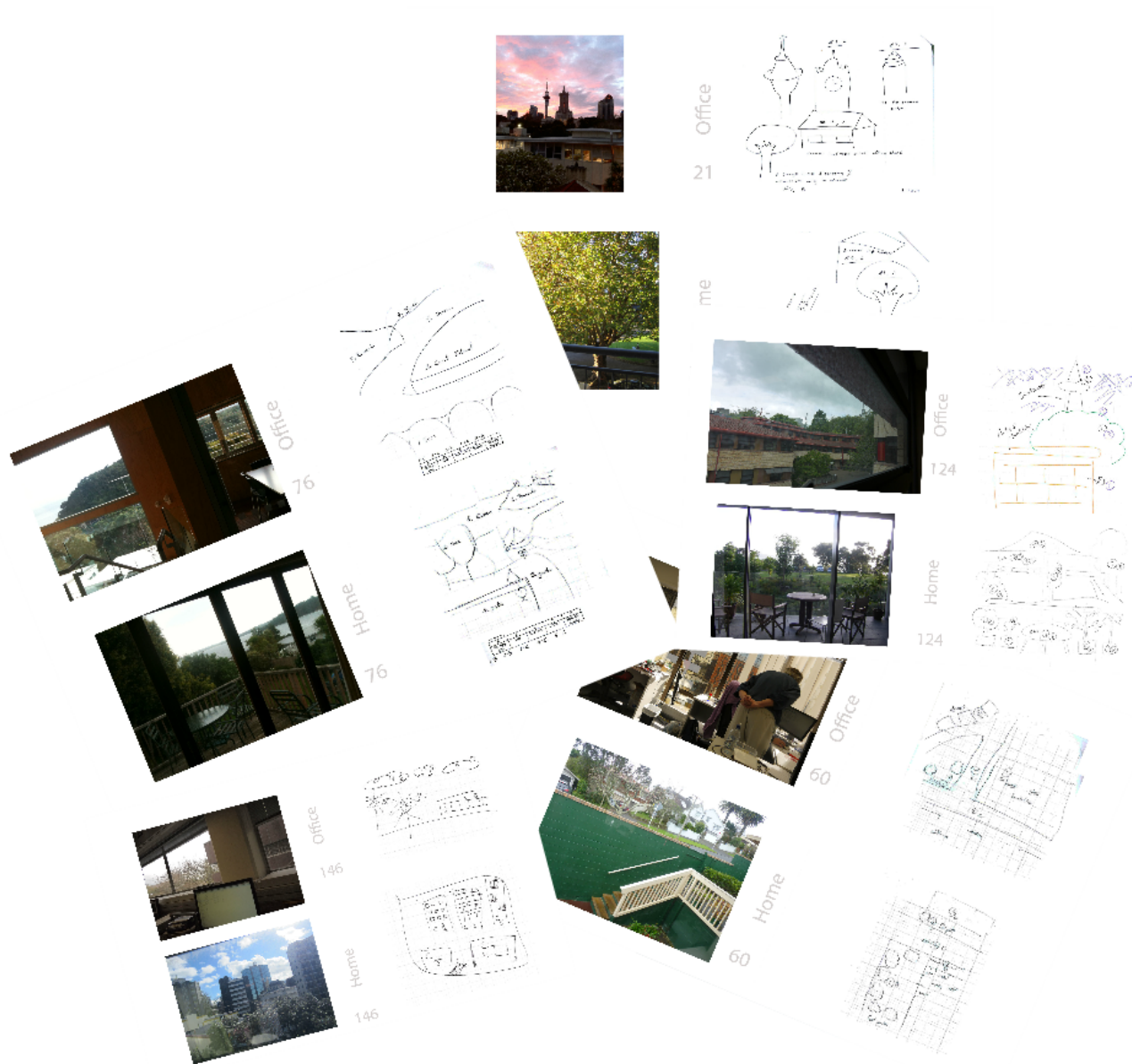




Home

31





310 Sketches
304 Photographs



building trees

Other words in the cloud include: rangitoto, driveway, bushes, church, domain, bench, distance, harbour, road, park, plants, skytower, engineering, apartment, fruit, blue, stairs, grass, carpark, path, sky, balcony, flower, flowery, hedge, island, traffic, neighbour, car, wall, fence, office, table, people, parking, lot, light, hospital, boat, garden, deck, hotel, og, og, auckland, mo, forway, bridge, roof, window, bird, rangitoto, driveway, bushes, church, domain, bench, distance, harbour, road, park, plants, skytower, engineering, apartment, fruit, blue, stairs, grass, carpark, path, sky, balcony, flower, flowery, hedge, island, traffic, neighbour, car, wall, fence, office, table, people, parking, lot, light, hospital.

Method

Lynch (1960) The Evaluative Image of the City; Nasar (1990)

+ Likeability

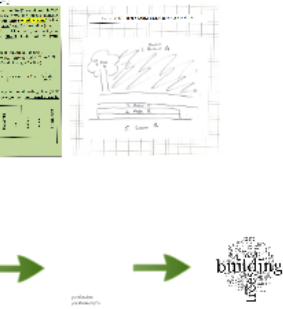
To be likeable, a feature must (evokes feeling like or dislike) and must stand out as memorable

Active Perception Technique

Identify the memorable features of urban window views

Rank preferences for those features and their influence

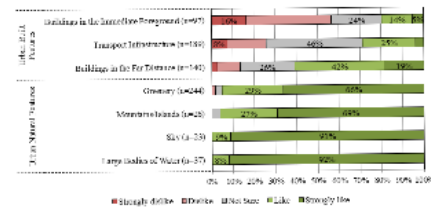
Overall preferences of the views



Results

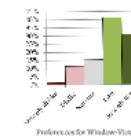


Assessment of Visual Quality of Landscape Features

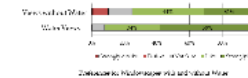


Feelings attached to the most common features of the view

Preferences for Views with Large Bodies of Water				
View Type	Strongly Dislike	Dislike	Like	Strongly Like
Coastal View	0%	0%	100%	0%
Bay View	0%	0%	100%	0%
Harbour View	0%	0%	100%	0%
Canal View	0%	0%	100%	0%
Lake View	0%	0%	100%	0%
Sea View	0%	0%	100%	0%
Waterfront View	0%	0%	100%	0%
Island View	0%	0%	100%	0%
Marina View	0%	0%	100%	0%
Port View	0%	0%	100%	0%



Preferences for Views with Large Bodies of Water

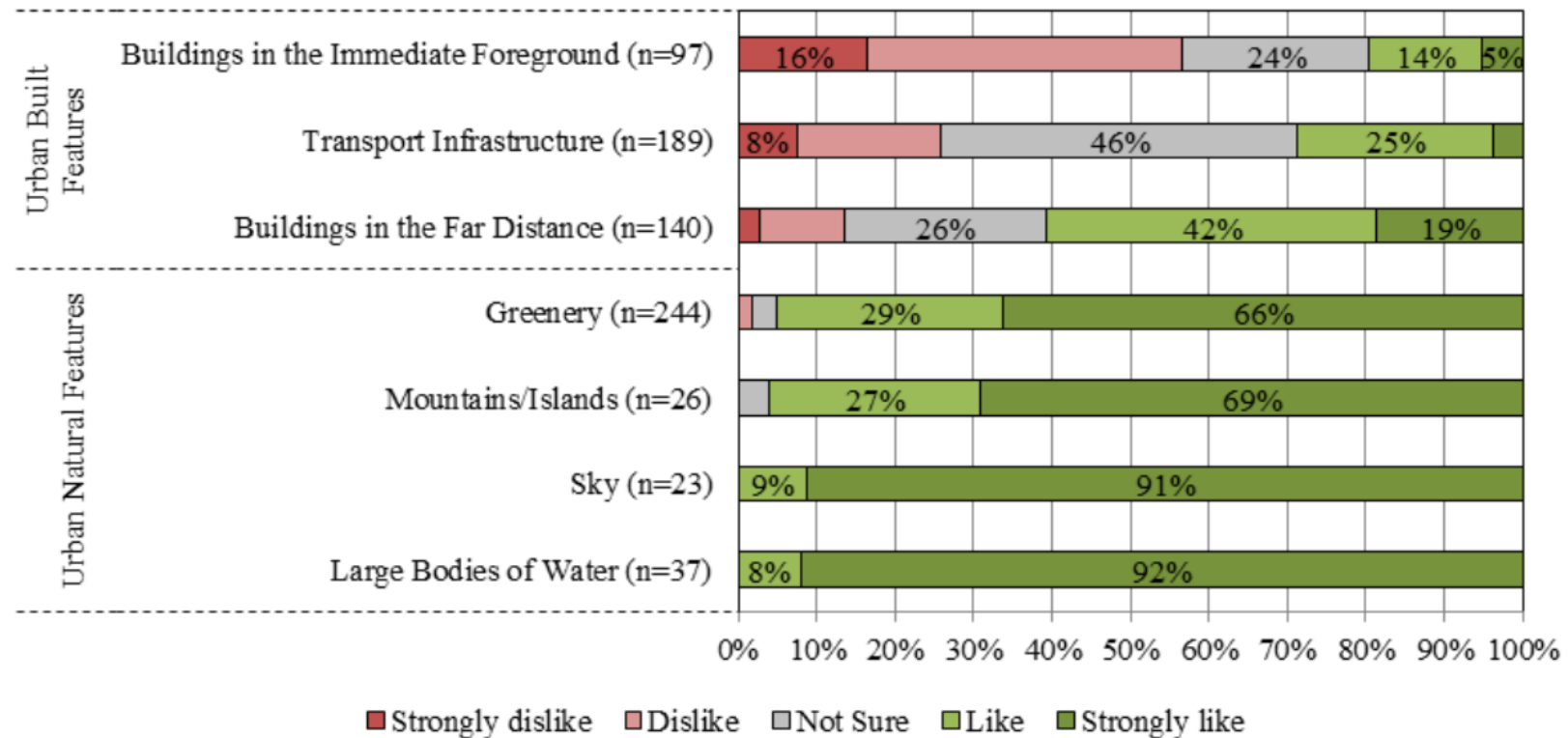


Conclusion

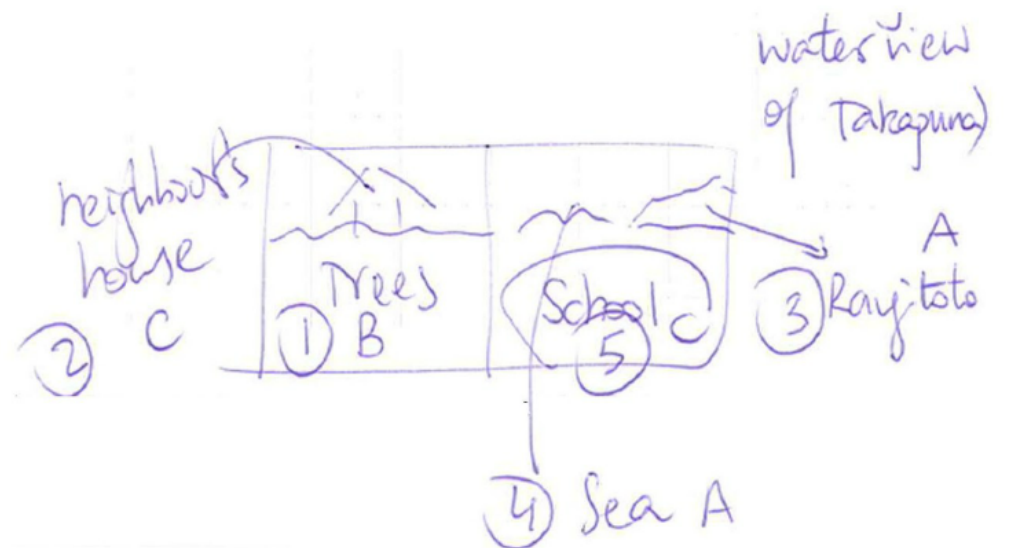
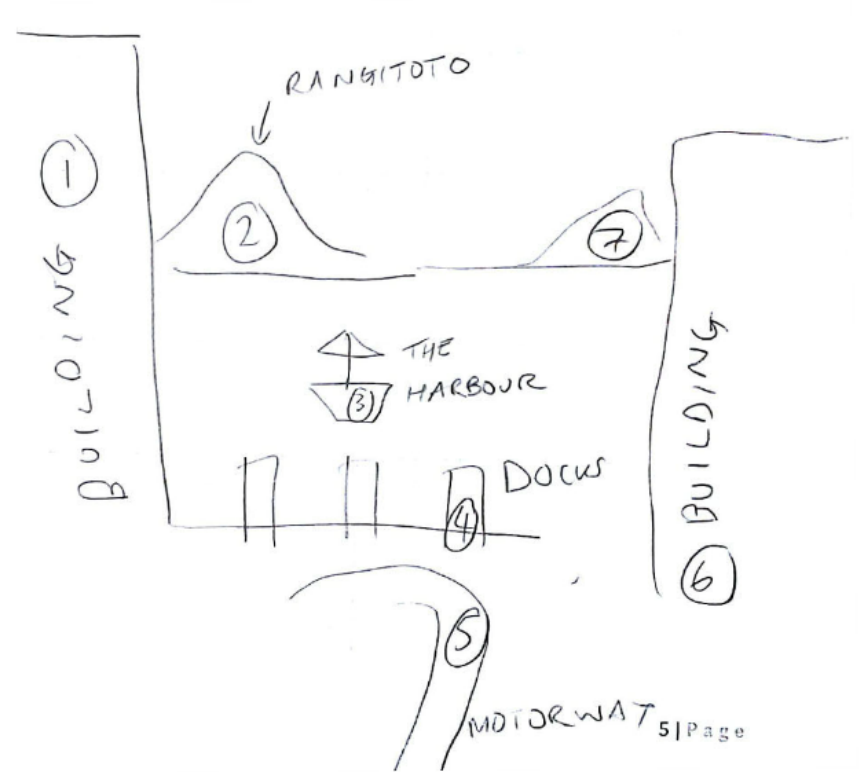
View to large bodies of water can provide the same, or better, benefits as the provision of green spaces.

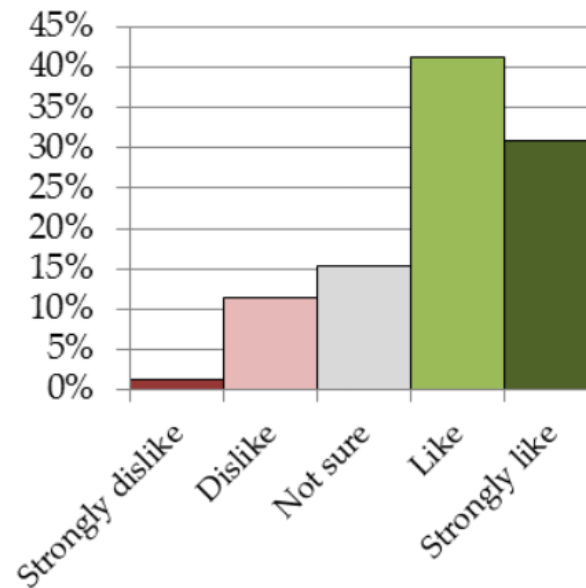
Discussion

Assessment of Visual Quality of Landscape Features



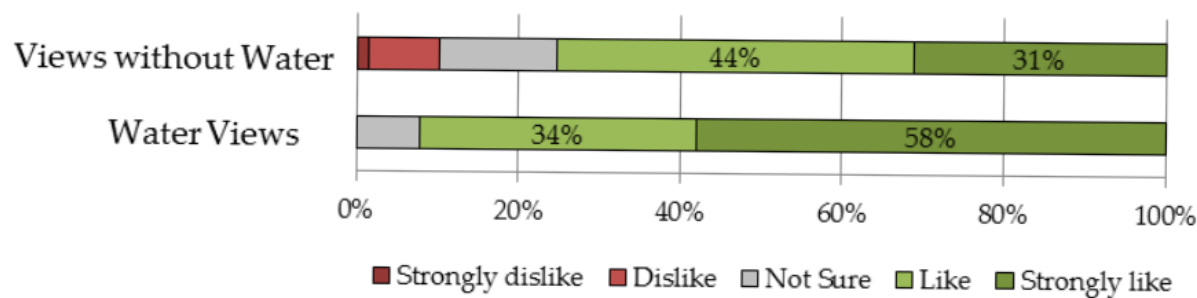
Feelings attached to the most common features of the view





Preferences for Window-Views

Preferences for Views with Large Bodies of Water

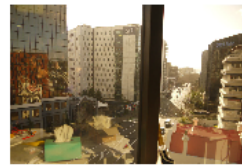


Preferences for Windowscapes with and without Water

Frequency of the Features Rated the Same as the Views

Disliked & Strongly disliked Views		Indifferent to the views		Liked views		Strongly liked views	
Blocking building	9	Road networks	14	Distant buildings	17	Large bodies of water	23
Road Networks	8	Blocking building	13	Borrowed trees	13	Own (Garden) trees	19
Parking facilities	4	Distant buildings	5	Landmarks	11	Domain Park	18
Borrowed trees	1	Parking facilities	4	Own Shrubs	11	Sky	16
		Borrowed trees	4	Road networks	10	Borrowed trees	16
		Landmarks	2	University Owned trees	10	Own Shrubs	16
		Garden trees	1	Blocking building	7	Islands/Mountains	11
		University own trees	1	Islands/Mountains	6	University own trees	11
				Domain Park	5	Landmarks	9
				Garden trees	5	Own lawns	8
				Own lawns	5	Distant buildings	5
				Sky	2	Road networks	2
				Large bodies of water	1	Blocking Building	1

Discussion



Office
48



Home
142

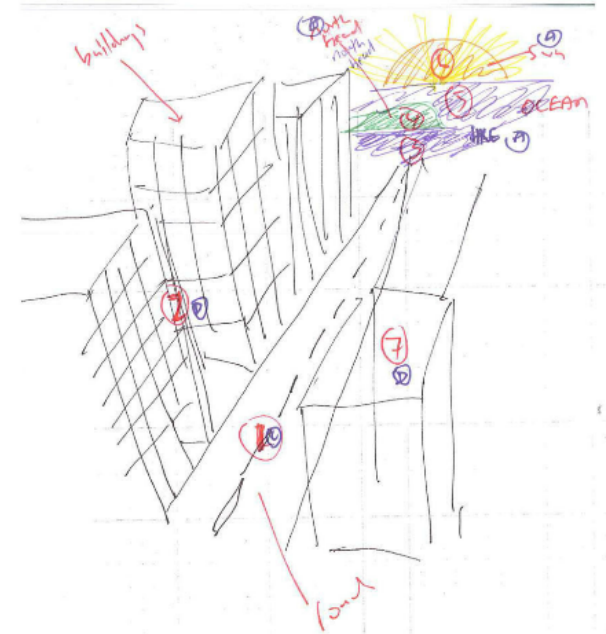


Reference:
White, M., Smith, A., Humphries, K., Pahl, S., Snelling, D., & Depledge, M. (2010).
Blue space: The importance of water for preference, affect, and restorativeness
ratings of natural and built scenes. *Journal of Environmental Psychology*.



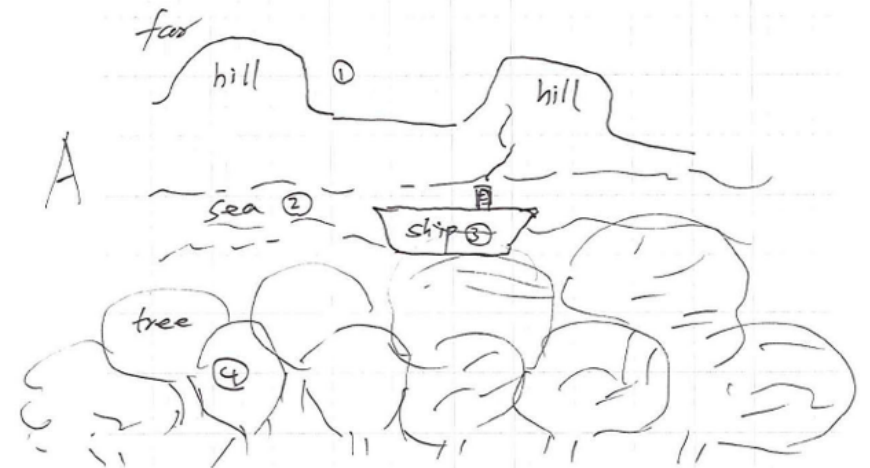
Office

48



Home

142





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ratings of natural and built scenes. *Journal of Environmental Psychology*.

Conclusion

- Providing a view to large bodies of water can provide the same, or superior, benefits as the provision of green spaces.
- Current legislation does not recognize the value of views from private domains (RMA).

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