Is there a correlations between human history of beaches and sea glass?

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Introduction

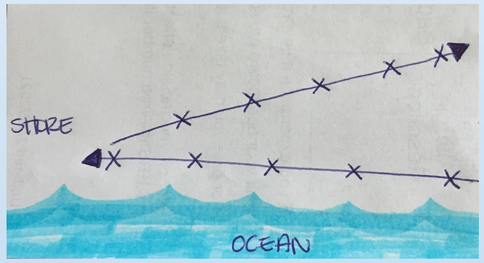
Research Questions: Is there a correlation between the human history of beaches surrounding the Salish Sea and the amount of sea glass?

Hypothesis: More sea glass will be found at older beaches because it takes a long time to transform from sharp broken glass to smooth sea glass.

Background: Sea glass begins as normal broken glass that is physically and chemically weathered. Sea glass takes 20-40 years and sometimes as much as 100-200 years to transform. Long shore drift and varying pH levels impact the wreathing process. (Wikipedia Contributors, 2021)

Methods

Procedure: Walk around each beach for 10 minutes writing down observations. After search for sea glass by taking 50 steps along the shore stopping every 10 steps to make observe and or collect glass. Then take 50 diagonal steps away from shore stopping every 10 steps to make observation and or collect glass. 10 observations at each beach.



Locations:

Washington State Park – Anacortes, WA (Figure A)

Sacred land of Samish Indian Nation and Swinomish Indian Tribal Community

Birch Bay State Park – Blaine, WA (Figure B)

Sacred land of Semiahmoo First Nation

Boulevard Park – Bellingham, WA (Figure C)

Sacred land of Lummi Nation and Nooksack Tribe

Washington Park	Birch Bay State Park	Boulevard Park
Est. 1915	Est. 1954	Est. 1980
19 pieces	8 pieces	7 pieces

Work Cited

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Washington Park

Figure A
Smaller more colorful sea glass. Most smooth and weathered. Beach location heavily populated wit small rocks along the shore. Almost no shells.

Birch Bay State Park

Figure B
A variety of different sized beach glass, most well weathered and smooth. Different size rocks at shore with many broken sharp shells mixed in. This beach smelled very salty.

Discussion

Observations: Sea glass was found at all beach locations just different sizes, amount of weathering, shapes and colors. All locations had people and pets present. More litter was found at Boulevard Park. Birch Bay State Park smelled the saltiest and had the most broken shells. Rock sized varied between beaches.

Interpretations: The largest sea glass was found at Boulevard park. Not all sea glass was equally weathered which means it likely varies in age. Older beaches had more sea glass that appeared smaller and more weathered which supports our hypothesis. Based on our finding we believe there is a correlation between the amount of sea glass and the age and usage of a beach.

Implications: Beach glass was easier to find while randomly walking along the beach than when actually searching for it following our method. Beach glass was harder to find at Birch Bay State Park – could have been timing/tides.

Boulevard Park

Figure C
Larger sized sea glass, well weathered but not as smooth. Mixed sized rocks and sharp broken shells along the shore. More litter was round here.

Limitations: Time constraint, accessibility challenges, variation in tides, transportation and funds, not enough background knowledge and difficultly finding resources.

Next Steps: Be mindful of glass consumption and recycle to help reduce ocean pollution. Search at less populated beaches and beaches out of state to compare findings. Make beach glass art just for fun.

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