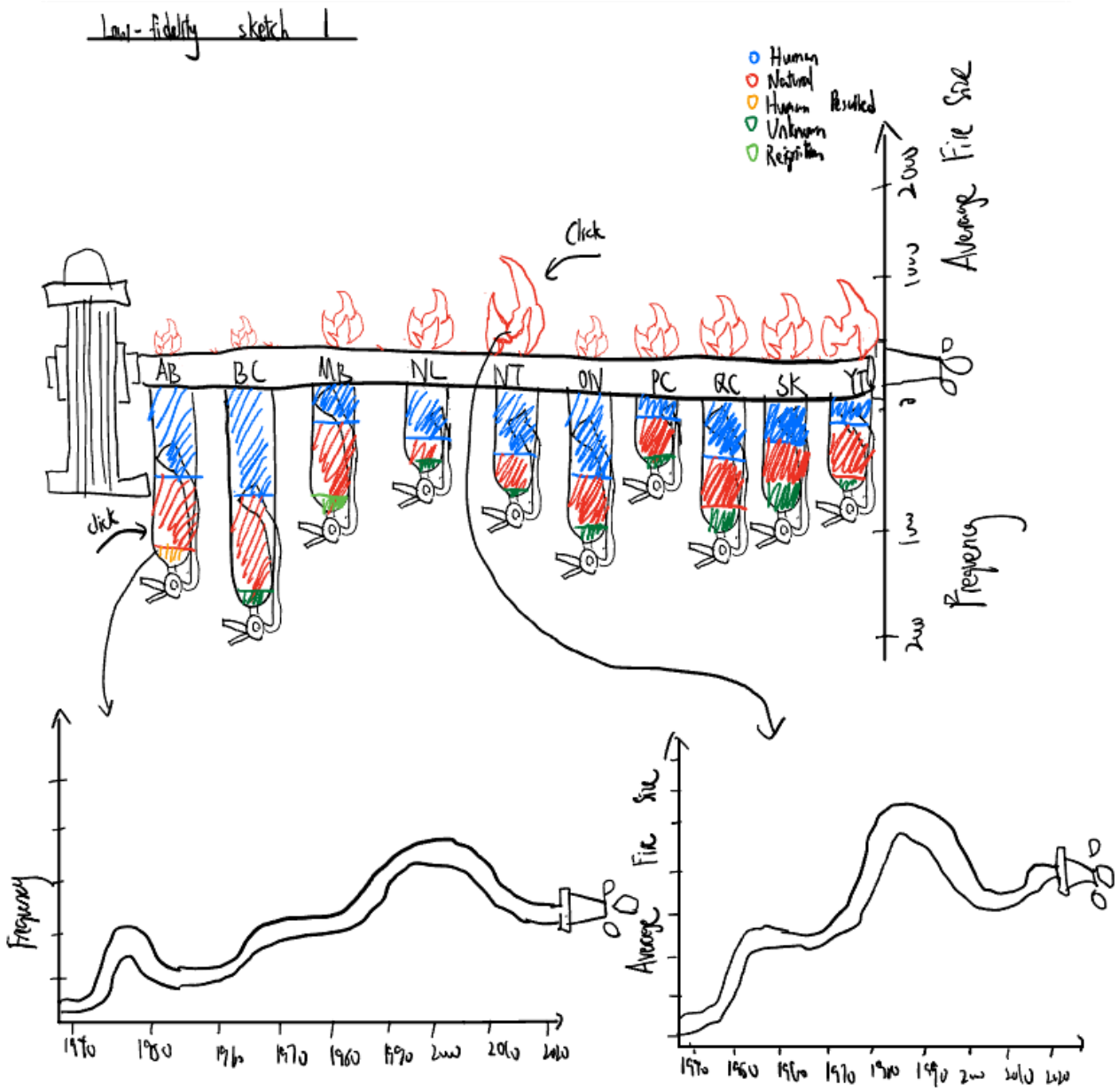
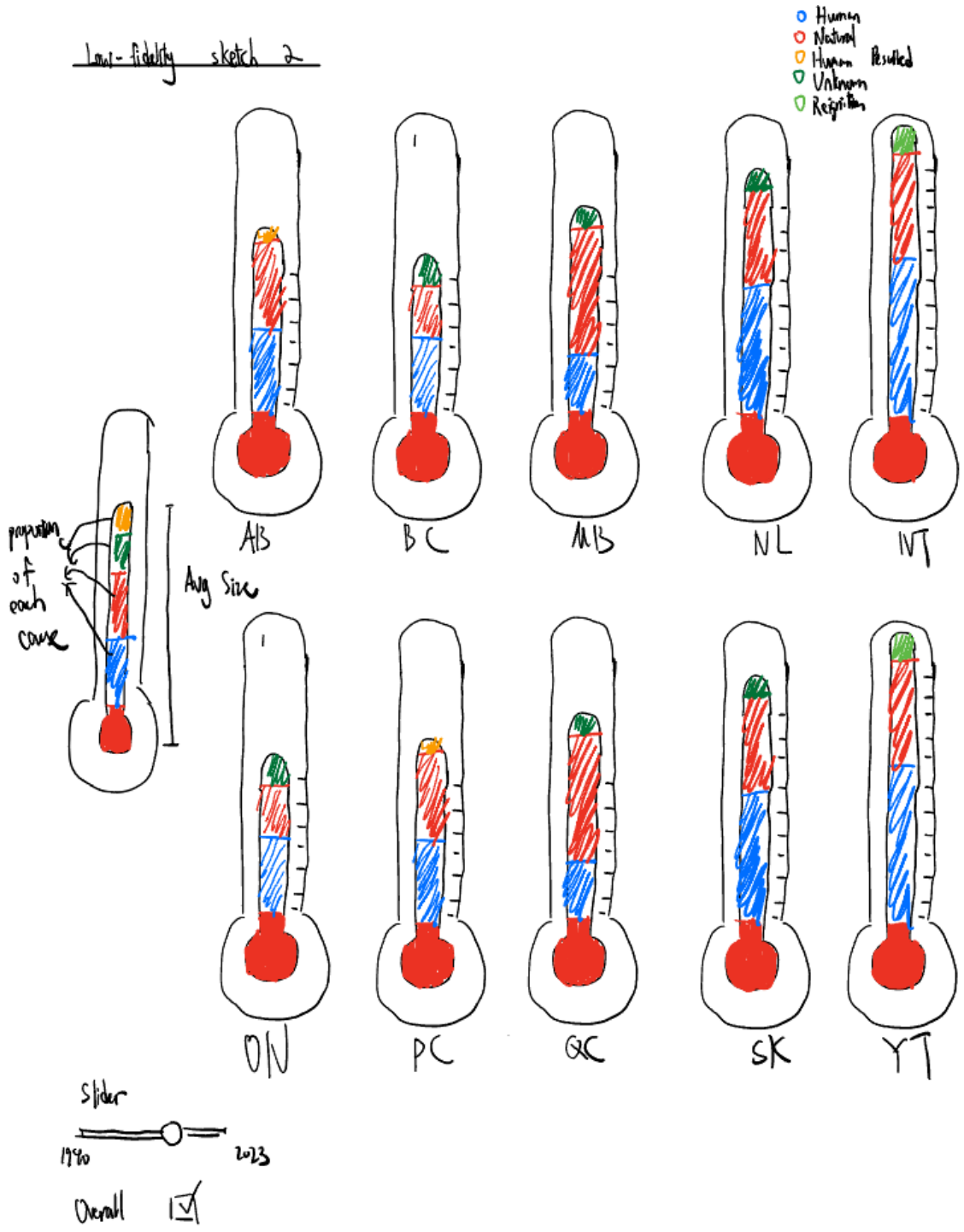
Low Fidelity Sketches:




Low-fidelity sketch 2
Human
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NT
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QC
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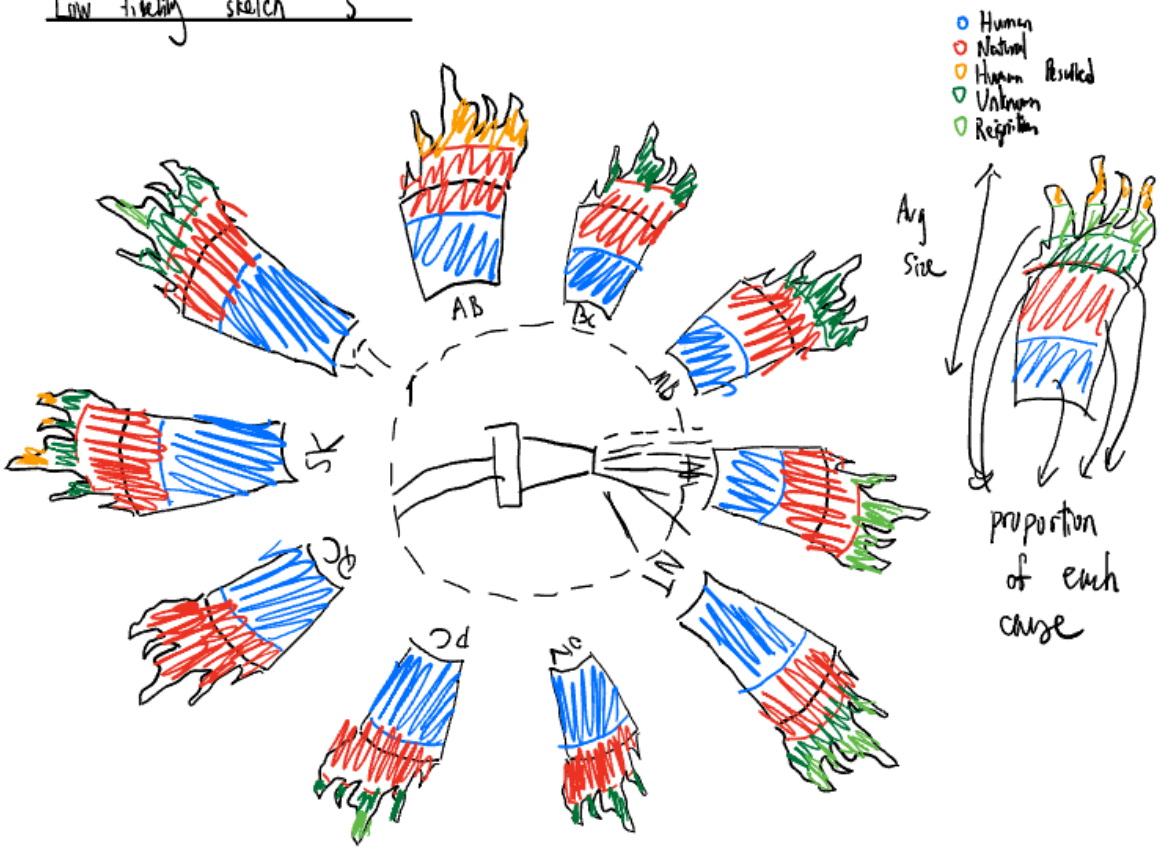
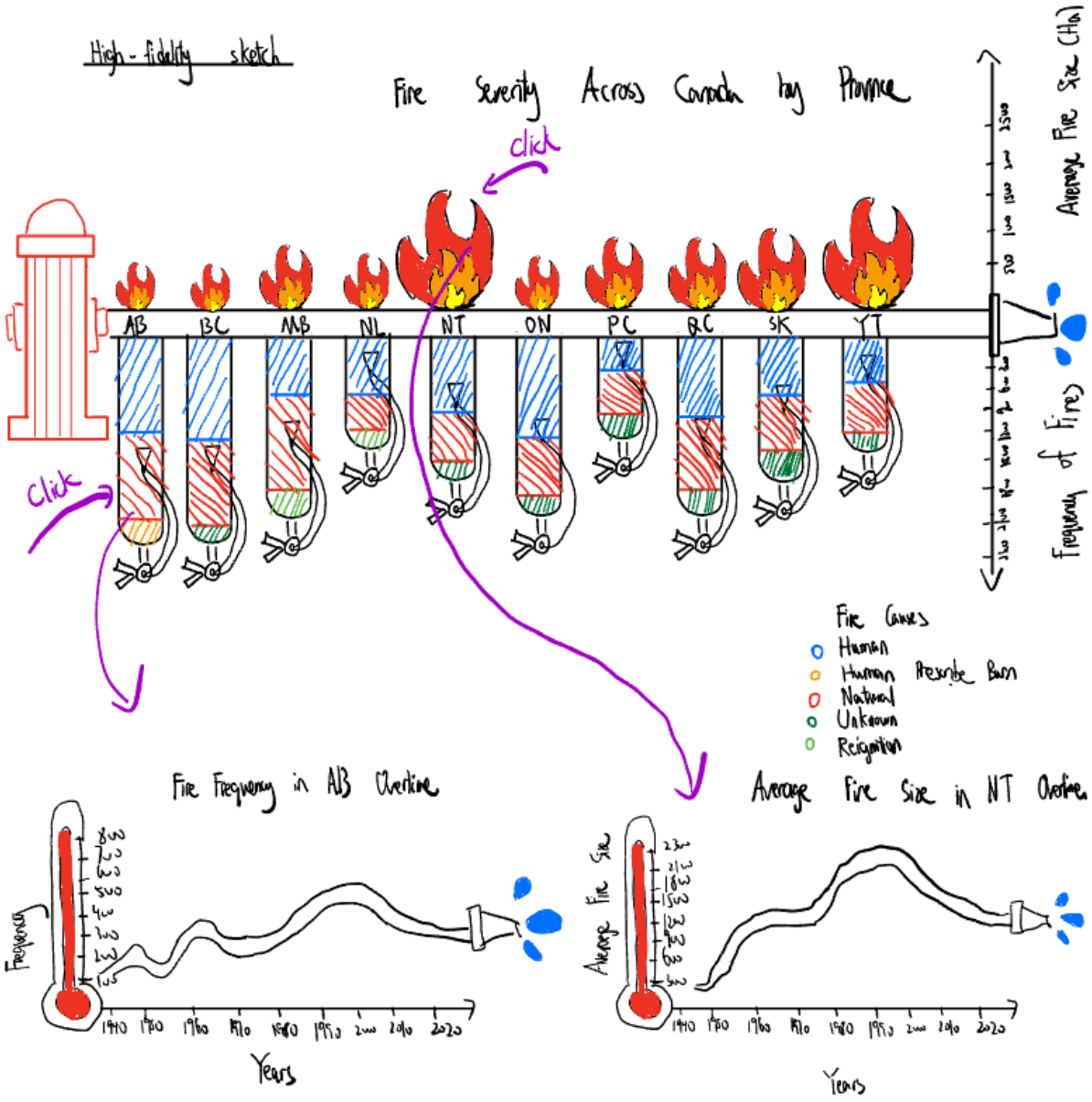
1990
2023
Overall

Low fidelity sketch 3



High Fidelity Sketch:



Summary:

For this novel visualization, I designed an alternative view to explore the analytic question: “How do wildfire frequency and severity vary across regions and causes, and how do these patterns change over time?” My goal was to present the similar underlying information as my previous analytical view, but in a more playful, visually engaging, and metaphor-driven format. To achieve this, I incorporated five data attributes: Canadian provinces, average fire size, fire causes, fire frequency, and years from 1940 to 2023.

The main visualization modifies a traditional two-way bar chart through the lens of firefighting symbolism. Each province is represented by a horizontal fire hose, with a flame on top and a

fire extinguisher hanging below. The size of the flame encodes the average fire size, directly linking visual intensity to severity, while the length of the fire extinguisher represents the frequency of fire events in that province. Inside each extinguisher, stacked colored segments encode the proportion of fires by cause, functioning similarly to a stacked bar chart but embedded within a thematic element.

During the design process, I placed strong emphasis on visual storytelling by intentionally integrating elements that symbolically represent fire, danger, and firefighting. Rather than relying solely on conventional marks such as rectangles or lines, I chose flames, extinguishers, hoses, and hydrants as the core visual components. These elements are instantly recognizable and carry inherent meaning before any labels or legends are read, the viewer already senses the presence of fire, heat, and emergency response. By embedding the data into these familiar objects, the visualization blends analytical information with metaphorical imagery, transforming the chart into a scene that intuitively communicates wildfire severity.

To deepen engagement and support more detailed analysis, I designed two interactive subviews triggered by clicking either a flame or a fire extinguisher. This interaction reveals historical trends in fire frequency and average fire size from 1940 to 2023 for the selected province. I replaced traditional y-axes with thermometer-styled indicators, which visually reinforce the idea of rising heat and risk. This design decision ties the concept of temperature, which is a natural signal of intensity of wildfires, strengthening the emotional and interpretive impact of the visualization.