

User Tracking Evaluation

We installed 45 temporary signs and created new maps to test in the Royal Ontario Museum. We recruited participants to test the new system through an initial online survey.

Participants were briefed on the goal of our tracking evaluation and were invited to move through the museum as they normally would without asking the observer questions.

We asked participants to find 8 locations in the museum. We chose high traffic locations and places that are often confusing to find. The participants were followed and observed as they completed the tasks. At the end of the task analysis the participants were invited to provide comments about their experience. We also had them complete a survey to address key questions regarding the new map design. Participants received 2 complimentary tickets to return to the museum at another time.

9 groups of people observed. Total 20 participants. 17 survey's filled out. 3 children under the age of 13 did not fill out the survey.

	Under 13	13-18	18-30	31-50	50+
Male	2		3	1	1
Female	2		6	4	1

Map Recommendations

1. On the guide map the area around the Stair of Wonders, the main elevators and the rotunda is quite confusing, people think there is a ramp where the wall is angled. They also don't see a clear path to walk through this area to the AAA Gallery because the white background behind the text "Main Elevators" and "Stair of Wonders" blocks the orange path. Disconnect the white background from the elevator pictogram to open up this path.
2. People cannot differentiate between the Rotunda stair and the stairs in Arms and Armour on the map. Space text. Try color coding system for stairs and elevators to highlight access.
3. The floor numbers on the signs and map need to be made more clear, people are finding the cut off numbers confusing and often don't realize what floor they are looking at. Use whole number

4. When opening the guide map Level 1 should be the first level that people see. People do not use the stacked maps as a way to vertically navigate the building. Try tabbing the map pages or highlighting level one.
5. Accessing Food Studio is still a problem. The division between the two B1s needs to be stronger on the map. Try including 'no access' on map between areas. Large signage and lighting needs to be used to identify main floor entrance to the B1 Food Studio.
6. Type and font size on the sign system are working. Fonts on the map can be increased.

Sign Recommendations

See sign testing blue map for sign #s and locations. See corresponding pdf for photo depictions of recommendations.

The following recommendations are a result of the tracking survey with 19 participants and direct observation of the signs on Level 3 over the course of 2 weeks.

1. The temporary contrasting black and white signs are visible and are working for people. Visitors are reaching their destinations without asking staff and security guards questions. Security guards have continued to note fewer inquiries due to temporary signage remaining up.
2. The chair lift/stair area in the Europe gallery needs to stand out more as people only see it when other people come through the doors. Once they do notice this is a pathway they see the sign at the top of the stairs #8. Test lighting solutions to highlight this transition area.
3. The directional sign at the back of Egypt #44 is being used and is easily seen from the front of Egypt. Implement permanently. Use this strategy on level 2 galleries.
4. Visitors are definitely using the Africa: Egypt pin letters. #22. Implement PIN letters for all gallery identification.
5. From a distance people still hesitate when going towards sign #10 possibly make this sign like #17 with larger text simply indicating European Galleries.
6. After people walk through the doorways into Arms and Armour and down the stairs they start to look for signs. At this point they have already passed sign #9. There is a stone wall that can be used to repeat this information.

7. Double signage for Egypt #19 and #20, works because people cannot see the Egypt doorway at many vantage points. Implement permanently.
8. Washrooms signs are large and have been easy to find despite the many walls in the Trypillia exhibit. Implement large washroom icon identification signs for all areas in the museum.
9. Osler Stairs and elevator are not always easily found. Test protruding blade signs in these areas especially on level 2. Test painting elevator door and stairs green to highlight access.
10. All other signs are working well and should be implemented permanently.

Observations & Task Success

The success rate is based on how quickly and easily participants found the locations using the map and signage system being tested. Numbers beside observations indicate frequency.

1. **Rotunda Stairs, level 1 – Success Rate 8/9**
 - flips through map and finds level 1 easily (3)
 - uses wrong floor on guide map to navigate to Rotunda (level b1, 4,c5) (6)
 - looks at map but has rough idea where rotunda is from being at the ROM previously (1)
 - covers the floor numbers with fingers, uses B1 floor map to find rotunda, but finds it anyway (1)
 - goes into Canada court first (1)
2. **Egypt – Success Rate 8/9**
 - use the numbering system to find Egypt, uses the right side of the map as the index (4)
 - uses directional sign at top of rotunda stairs, just outside Trypillia (7)
 - takes rotunda elevator with stroller to level 3 (2)
 - carries stroller up the stairs to Trypillia (1)
 - goes through crystal to get to Egypt, must use call button on Chair lift, the light does not turn on, carries the stroller up the stairs (1)
 - from Middle East not sure if they can get to Egypt, wander around a bit,
 - uses Africa: Egypt pin letters (2)
 - uses both black directional signs in Spirit house (1)
3. **Locate the nearest washroom. Success Rate 9/9**
 - has seen the sign after passing it earlier (2)
 - finds them easily (5)

- goes into Cyprus (2)
 - thinks the elevator icon is the washroom (1)
 - uses you are here map near Osler elevator (3)
4. **Visit the *Wedgewood: Artistry and Innovation* exhibition.** Success Rate **8/9**
- uses sign above Europe doorways (4)
 - uses concrete Samuel Galleries sign (1)
 - uses the Evolution of Style Map pod (4)
 - has hard time connecting Wedgewood to “European special exhibition on the map pod (1)
 -
5. **Locate the Stair of Wonders (SofW)** Success Rate **5/9**
- takes the long way through the back of Europe and through AAA (1)
 - don't notice the stairs they just passed that lead to SofW (3)
 - uses the most convenient sign at the top of the stairs in Arms and Armour (3)
 - uses pin letters in AAA (2)
 - finds the area around stair of wonders on the map confusing, thinks that it is a ramp going down (4)
 - goes back up stairs into Trypillia (thinks they are the stairs inside arms and armour) (2)
6. **Visit the Bat Cave.** Success Rate **5/9**
- use orange line on blue signs on 2nd floor (2)
 - use hand map, does not use map on wall behind them in SofW (3)
 - uses gallery trumpet stands on level 2 (4)
 - takes main elevator (1)
 - unsure where to go at the bottom of the stair of wonders (2)
 - uses 'You are here' map in SofW level 3 (3)
 - goes to the second floor rotunda from SofW and realizes it is a dead end (3)
 - takes the long way through mammals (6)
7. **Visit the Food Studio.-** Success Rate **3/9**
- The majority of people don't use map at this point, they have become familiar with sign location trends.
- sees they can't use the Osler elevator to go to B1 on trumpet stand, takes green stairs down (2)
 - takes Osler elevator to the 1st floor, goes through the green staircase (2) and finds elevator on opposite side (needs to for stroller) (1)
 - use main elevators to go to B1, wanders around Brown bag lunch room area (3)
 - takes the stair of wonders down to diamonds, loops through the whole show and goes back to first floor. Goes to restaurant elevator area and takes stairs (1)

- takes green staircase (3)
- can't find food studio on the guide map (1)
- takes a while to find food studio on the guide map, flips the map over and over again (3)

8. Find the Spirit house, level 1 Success Rate 6/9

- go right at the top of the stairs into Currelly heading towards Canada court and then turn back (2)
- think the spirit house is part of First Peoples gallery (1)
- can't immediately find it because it is not on the red dot index. (4)
- Goes the Currelly then to the c5 night entrance, is unsure where the walls are on the guide map level 1 (1)

Participant Comments

Floor Numbers

- The number '1' on level one is not clear
- I find the floor numbers on the guide map confusing
- Floor level graphics are confusing and need to be simplified (floor numbers)

Font

- Some of the text on the map is quite small. I.e. Stair of wonders
- The font size on the wall signs is too small
- I think they should have larger text as well.(directional signs)
- I like the white lettering on black background

Blocked pathways

- The map does not depict the maze of exhibits to be navigated around.
- Things are hard to find because there are no linear paths particularly through the exhibits in the crystal
- Displays block views to walkways
- It is difficult to navigate through the exhibits to the next doorway

Gallery Numbers

- Red dotted numbers are very effective
- I like the numbered rooms
- Numbered rooms were easy to navigate
- Numbers are helpful
- Add the room numbers as a headline above the room
- When I get to the gallery I want to see it's corresponding number
- It would be great to see the level number above the red dot index

Colour

- Colour code the floors on the map

- It would help if each floor was color coded
- Different colors for different exhibits would be helpful
- I found it hard to find food studio but I like how this floor is in color
- The colors (orange) should be more subtle to allow focus to be on gallery numbers
- Put the pictograms in color especially the washrooms

Guide Map Folding

- The folding of the map is confusing, level 1 should be on the top of the map i.e. level 1 is where c5 is
- The brochure seems to begin on the 5th floor when visitors start at the 1st
- The first page should be the first floor on the handheld map

Guide Map Compass

- The directional signs (compass) and street locators on the map are too faint. I didn't notice them and I was continually turning the map to get my bearings
- Make the compass more apparent
- I didn't use the compass I used Bloor Street
- I didn't notice the North Compass

Guide Map Staircases and Paths

- There needs to be more distinction between the staircases on the 3rd floor
- I found the staircases confusing
- Parts of the map are confusing to look at and navigate around (stair of wonders and main elevators).
- It is confusing on B1, maybe write no access between the two areas
- It is difficult to tell where in the museum you can pass through by looking at the guide map, the walls and hallways aren't totally clear either (confused around stair of wonders and main elevators)

Wall Signs

- I found the high wall signs useful
- More big clear You Are Here maps
- I would like to see more signs on the other floors that are consistent with the 3rd floor.
- There is lots of info on the signs, because of the French, is it possible to make the English and French contrast more?
- I didn't pay attention to the wall signage, except in Food Studio

General Map

- The maps seems to be adequate
- The map was clear given how complicated the museum layout is.
- I found the map very useful

- I think a 2-D map would be more clear
- The guide map did a good job of directing us around a complicated floor layout. Wayfinding will improve significantly when all sections are open to the public.
- I like the icons
- I like seeing artifacts like the totems on the map, it might be helpful to see more of those line drawing

Other Comments

- Stroller accessibility is problematic
- Concerned about ramp access
- The building is confusing
- I don't like the spirit house floor, it is too noisy
- It is hard to orient yourself from the map to the physical space
- I definitely needed time to look over the map before trekking ahead
- English as a second language would pose a problem in navigation
- Should try to shade in multi dimensional planes/ split levels for each floor
- Floor markers on the top of stairs hard to follow (I'm not sure what this means)
- Lots of corners, a nightmare to lose your kids in
- I didn't realize I was in the new part of the building
- There are no pay phones anywhere
- The scale in the survey leans toward the positive, it should be 1-5 not 0-5
- Could you put the galleries in alphabetical order?

Map Survey Results

Map Design Survey						
The Royal Ontario Museum is creating a new set of maps to replace the present one. This survey is designed to gain public opinion on the ease of use and clarity of the new maps.						
	N/A	Poor	Average	Good	Very Good	Excellent
		1	2	3	4	5
Guide Map (new map provided)						
How well does the guide map help you to understand how to navigate from one floor to the next?		1	4	8	4	

When looking at the guide map how easy is it to understand what floor you are on and where are you on that floor?			3	7	5	2
How easy is it to identify the numbered galleries on the guide map?			2	6	6	3
In case of an emergency, can the guide map help you to find your emergency exit?		4	5	6	2	
How useful did you find the North compass symbol next to the guide map?	2	11	2	1	1	
Wall Maps (various locations throughout the third floor)						
How well does the wall map help you to understand how to navigate from one floor to the next?	3	1	3	7	3	
When looking at a wall map how easy is it to understand what floor you are on and where are you on that floor?	2	2	1	5	5	2
How easy is it to identify the numbered galleries on the wall maps?	1	3	3	3	6	1
In case of an emergency, can the wall map help you to find your emergency exit?	1	2	2	5	4	3
In General						
How well did you like the contrast of colors in the guide map and the wall maps?	1	2	4	2	7	1
How easy is to find your way out of the museum?		1	7	3	4	2
How easy is to find the washrooms?		2	2	7	4	2
How easy is it to determine the fastest way to the Food Studio?	1	3	5	7	1	
How easy is it to read and follow the signs?	1	2	4	4	6	
How easy are the pictograms (icons) to understand?	1		2	4	8	2