

Observational Study: MoMath / SIBL

Archives, museums, and libraries, commonly grouped as “memory institutions”, have been curating collections to promote public education and awareness for many years. While it is commonplace to state that the ubiquity of digital technologies and networks is profoundly changing our societies and our ways of apprehending things, these institutions still serve as reservoirs to be tapped for many different purposes, from education to entertainment. For my observational study, I chose to visit the National Museum of Mathematics (MoMath) and the Science, Industry, and Business Library (SIBL; a branch of the New York Public Library) to examine how the difference in the nature of the two different types of institutions impact the way we interpret information and thus gain knowledge.

Due to the brevity of my observations, it must be pointed out that my findings should only be used to fathom a general overview of the institutions. It should also be noted that each institution has its own mission, which inevitably shapes how they are structured and built. Found in 2009, MoMath “strives to enhance public understanding and perception of mathematics”, while SIBL is a “public business library with electronic resources, comprehensive print materials and services for start-ups and established businesses seeking expansion, and for job seekers from entry to executive levels”. From the key sentences pulled out from the institutions’ mission statements, it is already clear that they are targeting different types of visitors. While MoMath is interested in gathering visitors across different age groups and backgrounds, SIBL is primarily focusing on adults with career development plans. That said, I felt that they were applicable for comparison as they share

the ultimate goal of disseminating information and raising public understanding. As an effort to conduct a somewhat “fair” test, I chose these two institutions for two other reasons. First, they were only ten minutes apart from each other by walk, which meant that I was able to compare the two institutions at similar time ranges. Second, I found out that they are both two-story buildings, meaning I was able to spend an equal amount of time on each floor. I stayed for fifty minutes at each institution, one hour apart from each other, on Tuesday. I arrived at MoMath at 1:30pm and SIBL at 2:30pm.

Facilities and Features

Table 1.
Comparison of Facilities and Features at MoMath and SIBL

	National Museum of Mathematics (MoMath)	Science, Industry and Business Library (SIBL), New York Public Library
No. of security guard	0	1
No. of staff	6	10
Café	0	0
Coat check	1	0
Gift shop	1	0
Toilet	2 (2 sets)	2 (2 sets)
Moving image display/work	A large amount	A very little amount (one portion of a wall)
Interactive works/stations	Nearly all	None
Cell phone regulation	None	Yes, through X-banner
Audio tour guide	None	None

There were a number of stark differences in their facilities. For example, MoMath, unlike SIBL, had a coat check as well as a gift shop which are generally better associated with museum settings than libraries. However, unlike most museums that attract young

visitors, it did not have a cafeteria. The absence of cafeteria where visitors can sit down and take breaks, security guard, as well as a lack of the number of staffs to accommodate their target audience, which seemed to be children, meant that the museum appeared more chaotic than it could have been. Overall, MoMath was an extremely noisy place where cameras and phones were heavily used. On the contrary, in SIBL, there was a security guard who was stationed at the entrance to scan visitors' bags. From the moment I set foot in SIBL, I was made aware that I should refrain from making loud noises as what first greeted me was an X-banner that read "No talking on cell phones".

The works displayed in MoMath were not works of "art" so to speak; they were not sacrosanct objects which typically only grant a viewing experience. Except for a small gallery space within the building where the exhibition "What's So Funny About Math?" was held, all the works, which I would like to call 'stations', were game-like stations built specifically for the museum. MoMath heavily relied on screens that displayed moving images to display information. Out of forty-two stations across the entire museum, thirty-seven of them involved touch screens that informed visitors of how they work. While the stations did not necessarily carry artifactual values, they certainly attracted young visitors who were easily stimulated by the bright colors and continuous motions that proliferated both inside and outside screens. While it is difficult to judge



Figure 1. Kindergarten-aged children interacting with a station at MoMath, February 19, 2019.

whether MoMath's attempt at elevating public perception of mathematics as something fun is successful, it is true that all the stations required visitors to use a mathematical way of thinking to engage in an entertaining experience. I can say with confidence that the almost overwhelming number of moving images and interactive features is critical to one's experience at MoMath. Unlike MoMath, SIBL did not use moving images or interactive features to engage with the visitors. There was only a small portion of wall dedicated to



Figure 2. A man watching news on television screens at SIBL, NYPL, February 19, 2019.

eight television screens that displayed financial news channels. While this may sound plenty, it should be noted that it was a small corner far detached from computer stations and bookshelves. During the time of my visit, there was only one visitor who was staring into the screens. The

information on the screen was also entirely predetermined by SIBL, and required no interaction at all. However, SIBL offered leaflets that contained specific information about career developments and relevant opportunities provided by SIBL such as seminars and classes. Much to my surprise, there were more information found offline than online.

Visitors

Table 2.
Comparison of Visitors at MoMath and SIBL

	National Museum of Mathematics (MoMath)	Science, Industry and Business Library (SIBL), New York Public Library
Age range	5~70	20~60, mostly around 45~60
Individual/family	Family groups	Individuals
Gender	About equal	About equal
Race	Relatively more diverse	Nearly all appear local
Average time on each work	-About 10 minutes on average -Usually 3 minutes at least	Usually for many hours on computer

The differences that I have already explained above are probably representative of the different types of visitors that the two institutions receive. For example, MoMath's reliance on visual means to share information through screens or big and bold shapes and features is its effort to engage with visitors who are ten years old or younger, who seem to be MoMath's primary audience. And although it varies depending on each individual, visitors who on average are older, at SIBL, may find more comfort in engaging with information on paper. Instead of visiting the library's website to recollect the information they found in the library, they may prefer referring back to leaflets. While gender proportion of visitors seemed equal for both institutions, nearly all the visitors at MoMath came in family groups as opposed to individuals, which was the case with SIBL. In addition, while I was not able to distinguish anyone who stood out as a foreigner at SIBL, it was easy to notice that many different types of languages were spoken at MoMath. I noticed that visitors engaged with each station at MoMath for about ten minutes on average, which I found out by running two stop watches simultaneously on each floor at MoMath. This seems to be a longer duration than the average time it takes for a visitor to

view a piece of work at a more “conventional” museum or gallery settings. At SIBL, however, there was no appropriate means to compare this data with as the nature of the institutions differ. However, it could be pointed out that a visitor may spend up to a few hours in front of a computer or a seat.

Conclusion

While it was difficult to conduct an accurate test for this assignment due to limited time and resources, the observation exercise has given me the opportunity to think about the specific roles of memory institutions. Despite the heavily discussed topic: convergence across memory institutions, archives, museums, and libraries have different roles to serve because information, or a simple array of data, needs to be distinguished from how we interpret and process information as knowledge.