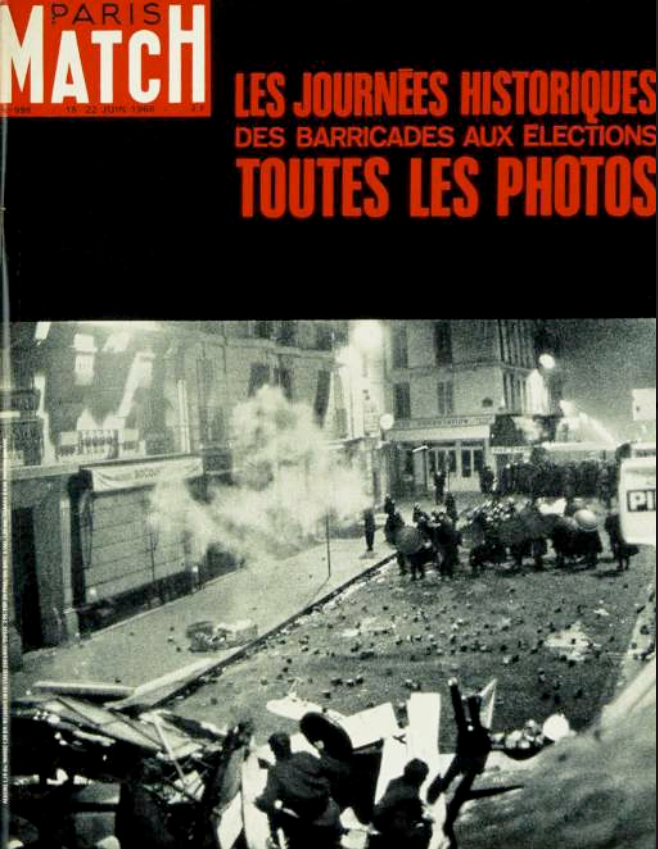




REFRESH

*Reinvigorating
the Collective
Memory of
the City of
Paris*



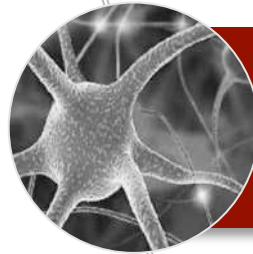
THE IMPORTANCE OF COLOR AND CONNECTION

In commemoration of the events of 1968, this proposal exists entirely in shades of red, black, and white. During the protests of 1968, magazines such as Paris Match, Le Nouvel Observateur, and L'Express chose to revert from their partial or full color spreads to black, white, and red instead, sometimes even adopting a more formal approach than normal.ⁱ By doing so, many magazines were able to signal their support for the protests.ⁱ Similarly, inspired by the vast networks of neurons responsible for memories in the brain, the pages are arranged with connections between circular idea nodes representing neurons.

Our goal is to spark conversations between people and their close friends and family about what it has meant to be a Parisian at different points in time rather than simply trying to recreate historic events. Forming an emotional connection to an event will make it memorable.



Contemporary commemorations such as the traditional Bastille Day parade and fireworks or the Tribute in Light art installations in New York City do little to help people understand about events in the past.



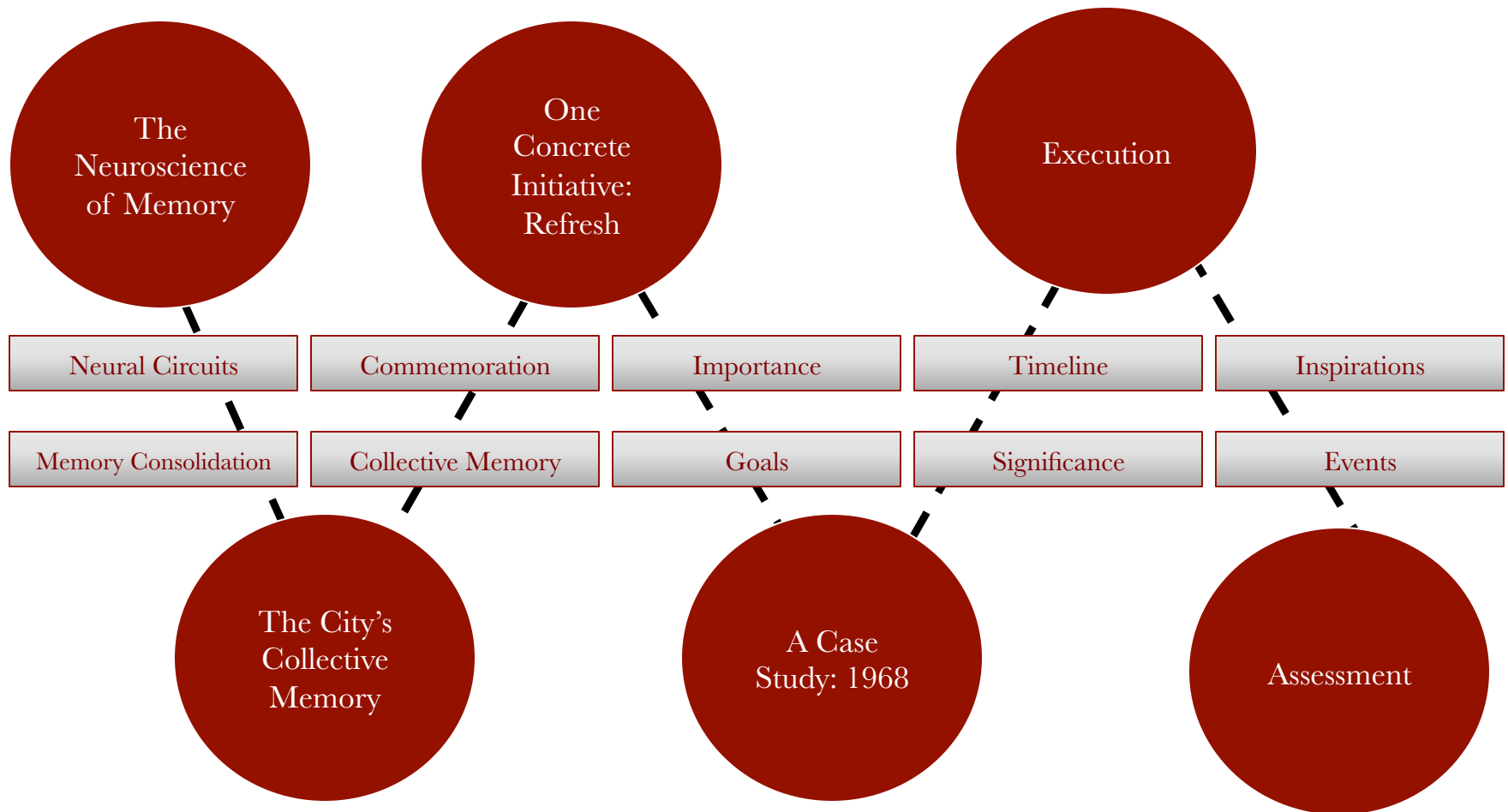
Just like pathways in the brain can be retriggered periodically in order to prevent loss of memories, the collective memory of people in a city can be refreshed as well.



The event we will use as a case study is the 50th anniversary of the protests of May 1968.



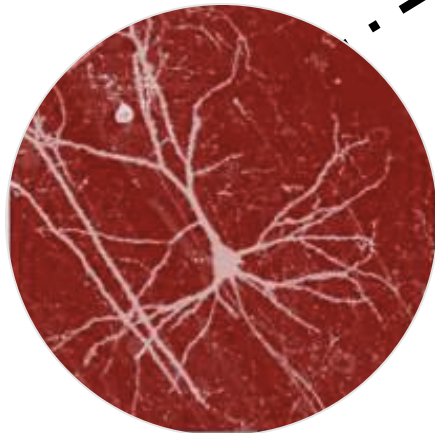
We want to help Parisians achieve a deeper understanding of what it meant to be Parisian at different points in time through temporary displays and performances designed to attract them by disrupting their regular routines.



If we approach a city as the sum of its parts, then we can view the city as a living entity. Inspired by the idea that the city is alive, the Harvard Summer School Program set out to apply principles in biology to problems plaguing Paris. Our team chose to tackle the collective memory of the city. We turned to neuroscience research on memory to help guide the design of our proposal.

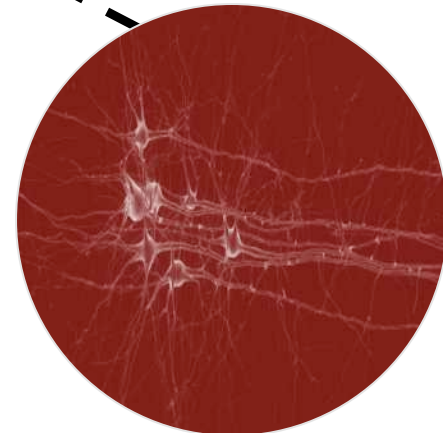
THE NEUROSCIENCE OF **MEMORY**

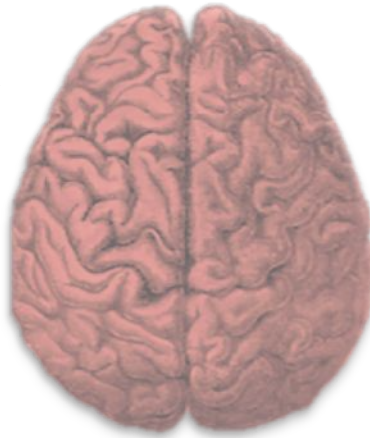
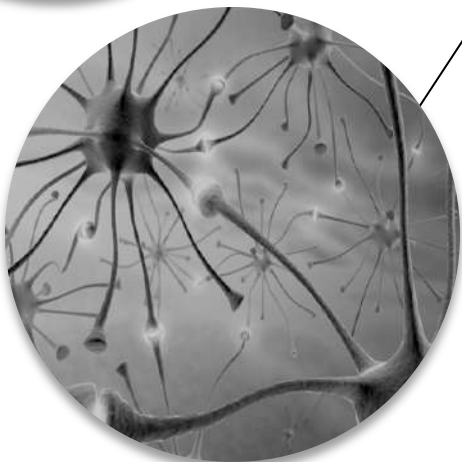
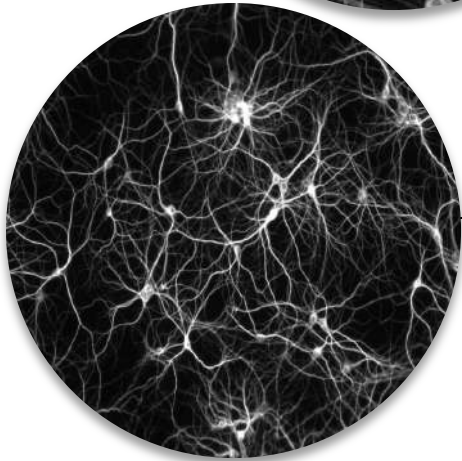




The "memory" in a neural network model is not simply an activated engram, however. It is a unique pattern that emerges from the pooled contributions of the cue and the engram. A neural network combines information in the present environment with patterns that have been stored in the past, and the resulting mixture of the two is what the network remembers... When we remember, we complete a pattern with the best match available in memory; we do not shine a spotlight on a stored picture.

-- Daniel L. Schacter, *Searching for Memory: The Brain, the Mind, and the Past*ⁱⁱ

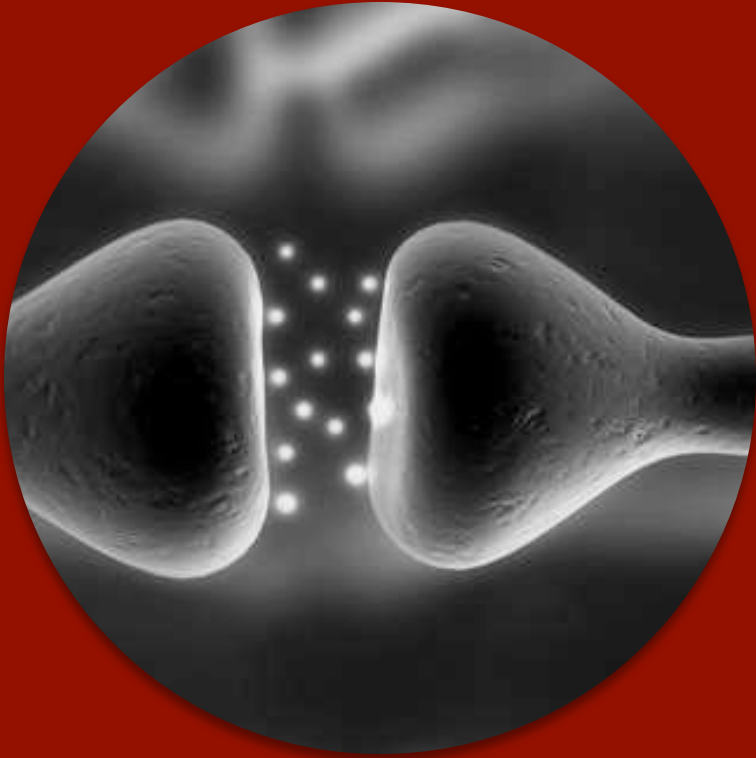




The brain is full of networks of neurons that interact, sending and receiving signals from other regions of the brain and incorporating feedback from throughout the body.

With around one billion neurons, the human brain boasts approximately one trillion neuronal connections.ⁱⁱⁱ

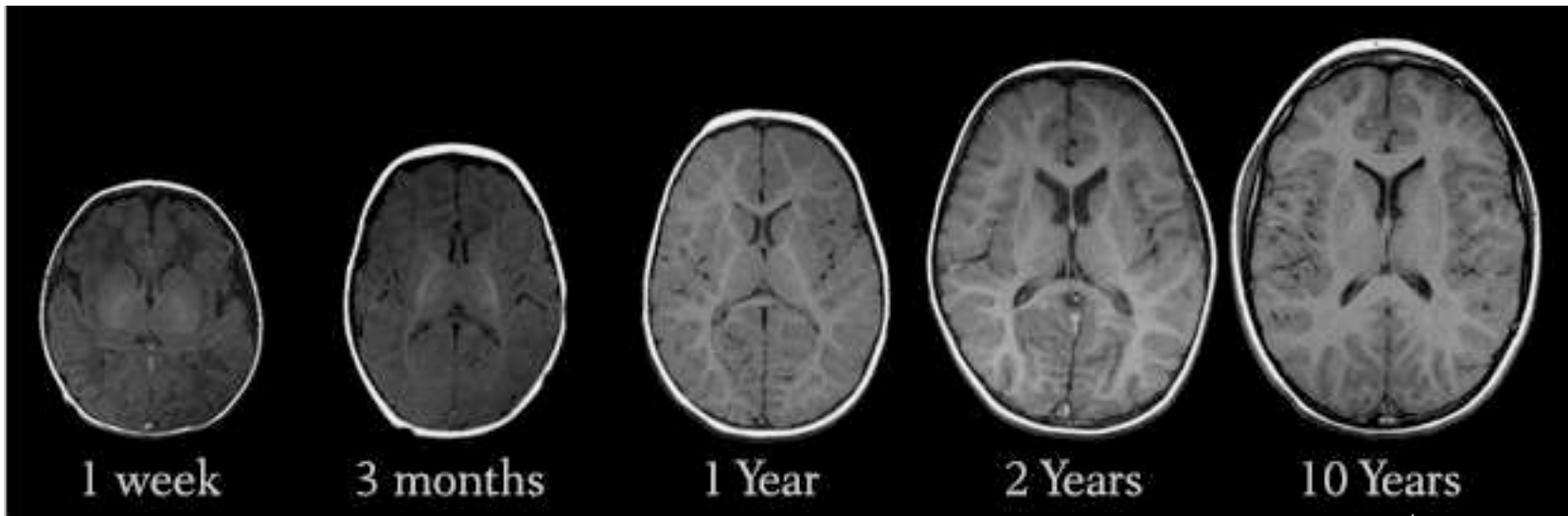
Yet with the potential to form communication networks consisting of up to 10,000 synapses per neuron, the brain must determine which neuronal interactions are significant to maintain efficient and useful networks.^{iv}



Any two neurons with the potential to communicate via synapses, or areas of chemical interaction, can lose this potential if firing between them does not occur at a certain frequency within a period of time.



Thus, in the brain, the interaction between components, not simply the potential to interact, is the foundation for the vast communicative networks that allow for maximum efficiency and success.



While the infant brain starts out with broad potential for complex networks,

over time the brain weeds out those connections and neurons that are relatively inactive.

The connection networks among neurons are crucial for encoding experiences into short-term memories and long-term memories, referred to as episodic memory.^v

The strength of neuronal connections is crucial, as synapse weakness impairs memory recollection.^{xii} Both memory significance and emotional valence influence memory strength and ease of recall.^{xiii}

Hebb's
Postulate:
Neurons that
Fire Together
Wire Together^{xi}

According to the Synaptic Plasticity and Memory Hypothesis, encoding a memory involves structural changes both at the individual synapse level and in the number of synapses present.^{vi, vii}

Under long-term potentiation, the synapse-level changes facilitate firing chains such that it becomes easier for a network of neurons to reach the threshold necessary to fire in sequence.^{x xi}

Synapse strength can be impacted by factors including the frequency of recall ^{xxi} and the specific senses associated with a given memory (i.e. smell and/or sight).^{xxii} As time passes, the location of neural activation upon memory retrieval moves from the hippocampus to other regions of the brain and the synaptic changes become more stable. ^{xv}

Reconsolidation has important implications for society, as city leaders must consider how to maximize the accuracy, strength, and emotional valence of collective memory.

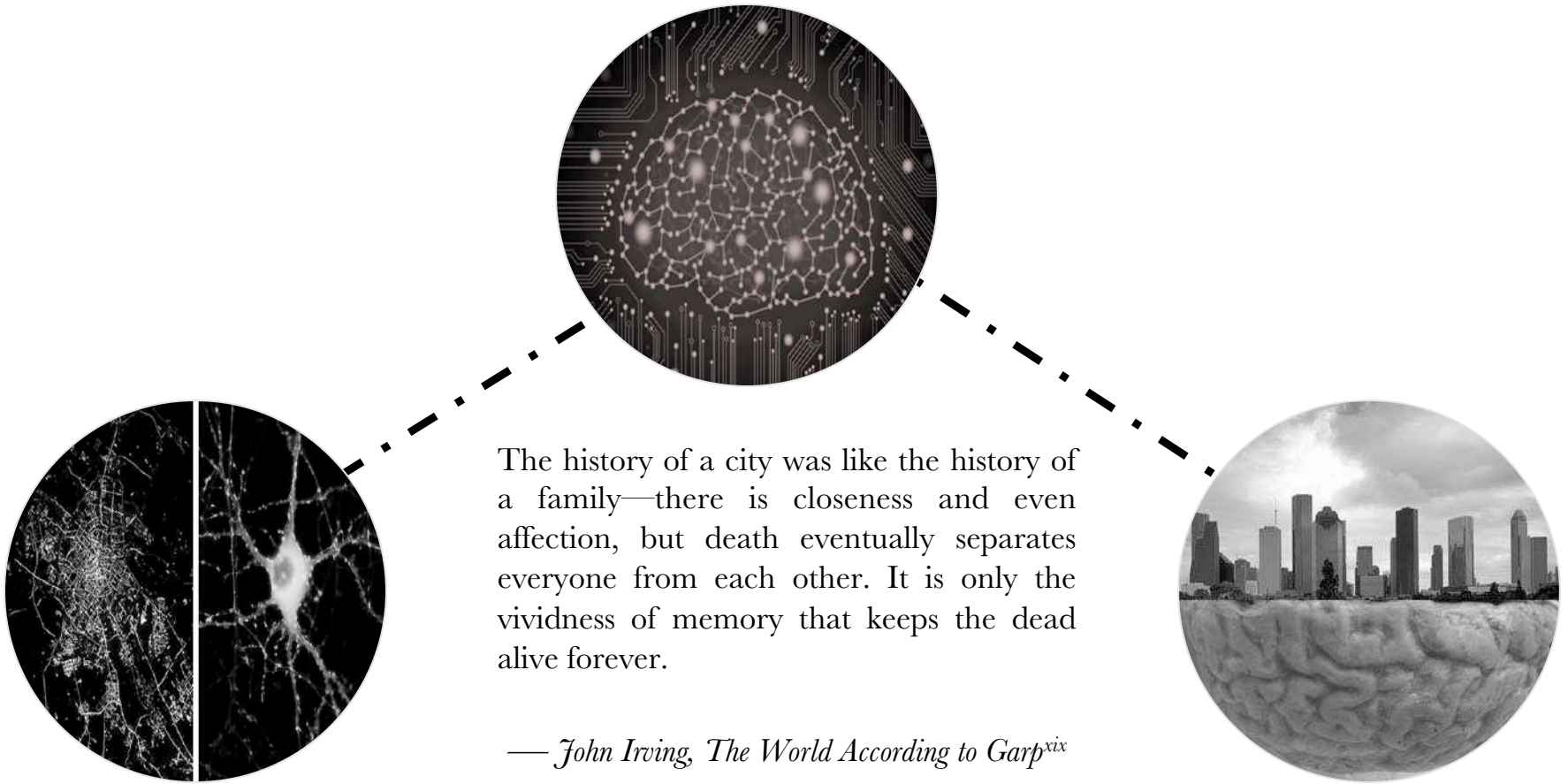
However, there is still potential to change the nature of synapses and memory even after the long-term memory is formed. Recent neuroscience has emphasized the importance of reconsolidation following memory retrieval. Studies with PTSD patients suggest that memory association and emotional strength can be altered through modification during reconsolidation.^{xiv} Thus, when a memory is recalled, there is potential to alter the nature of the memory before and during reconsolidation and to integrate new information and associations with these old memories.^{xvi}



Cities are analogous to the infant brain: as the approximately 2.4 million people in Paris walk through the streets,^{xvii} there is endless potential for interaction. Yet if individuals in the city do not take advantage of these potential interactions, then a potential source of inter-generational education and interaction is lost.

THE CITY'S COLLECTIVE MEMORY





Indeed, it is important for the community in Paris to have a sense of the city's history. Irving emphasizes the importance of vividness in carrying on the legacy of those who have passed away. As vividness and emotional valence both play a key role in ensuring that a memory lasts and can be recalled, Irving likewise alludes to the importance of emphasizing experience and emotional elements in the life of a city to promote an understanding of the city experience.

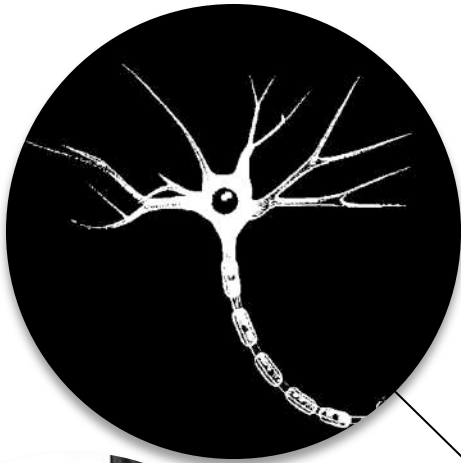
“To follow the analogy of people to cities— don’t we say, of the soldier who comes home from war or the victim of a terrible accident, that it’s ‘like she’s a different person?’ If personal traumas can wipe a person of her past, maybe historical events can do the same to cities...

Analyzing and experiencing the memory of the city could allow us to understand the city and its future evolutions.

This is one of the key findings of [Alberto Hernando de Castro’s] latest study: that U.S. cities have a ‘memory’ that goes back 25 years — that a city’s population dynamics in a particular year have some significant relationship to the population dynamics of every preceding year, going back half a century. In other words, it looks like there’s some underlying logic or rule connecting each individual in a city to (seemingly unrelated) movements of the greater population.”^{xviii}



Each individual citizen possesses their own memories based on their experiences. These memories detail everything from the mundane and ordinary to the extreme and salient. These individual memories contribute to the collective memory of the city, which goes beyond the historic facts found in textbooks to describe the sensational experience of life in that city.



Thus the individual citizens in Paris can be thought of like neurons.

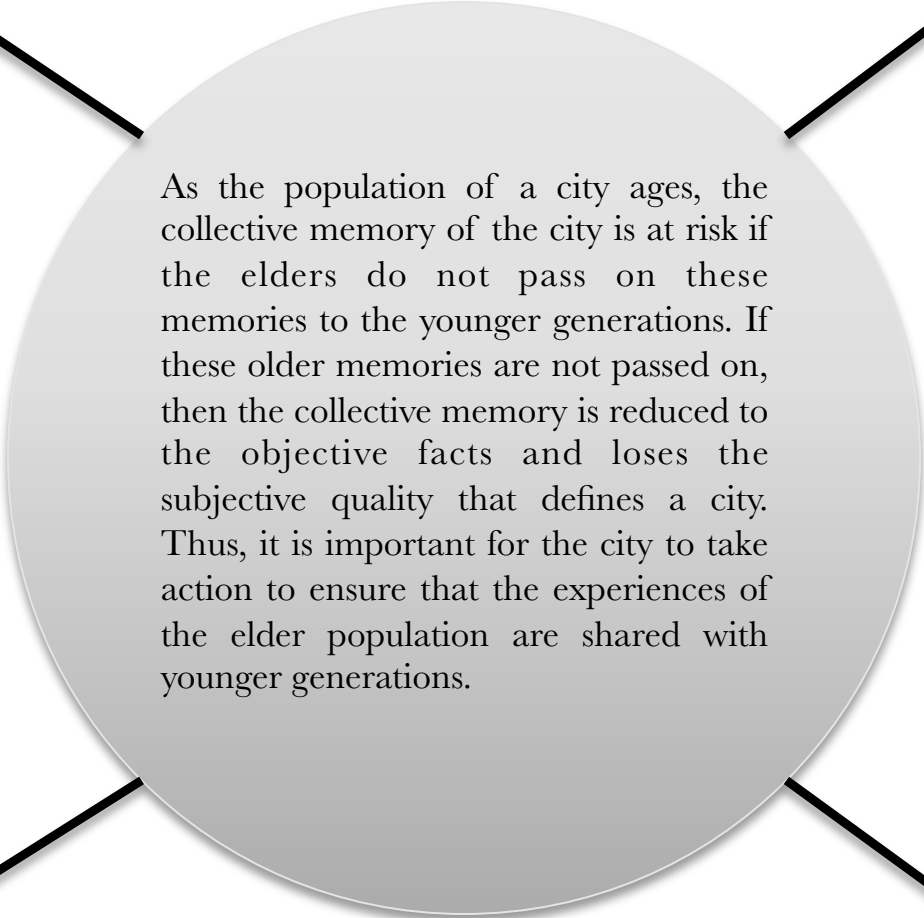


The high density of individuals provides the opportunity for the city to develop a rich, deep collection of city memory.



However this memory is dependent on sharing and discussion among citizens.





As the population of a city ages, the collective memory of the city is at risk if the elders do not pass on these memories to the younger generations. If these older memories are not passed on, then the collective memory is reduced to the objective facts and loses the subjective quality that defines a city. Thus, it is important for the city to take action to ensure that the experiences of the elder population are shared with younger generations.

As time passes and the formative events in French history become further distanced from the current generations, the importance placed on these events in the mind of the citizen population diminishes. Presentations and textbook readings fail to properly convey the physical, emotional, and mental sensations experienced by those that lived through those times.

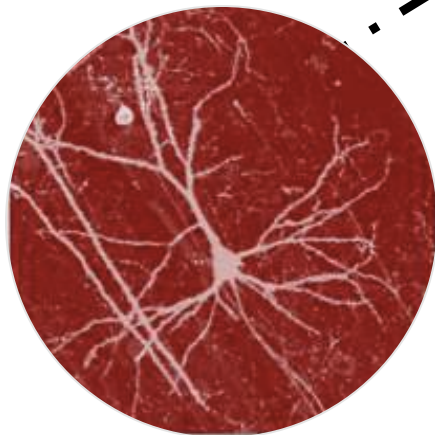
By providing the new generations with a powerful understanding of past struggles, the past can help us better understand our current situation.

Thus, by limiting teaching to these one-dimensional means, we put the collective history of Paris in danger of reduction to solely facts and figures. In addition, the public education revolving around historical events is primarily limited to schools, such that the adult population does not directly benefit from these lessons. It can be detrimental to the well-being of a community because the fraction of the population that is politically active is different from the fraction of the population learning about the importance of past political events.

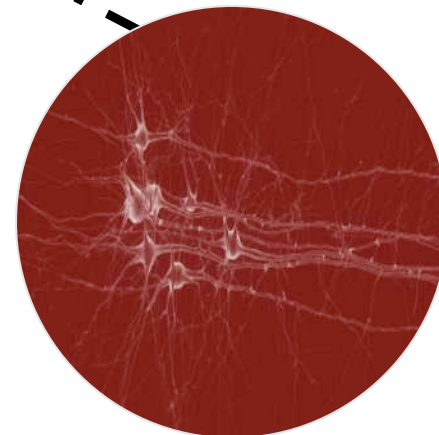
Taking the May 1968 protests as an example, students feel that education fails to properly convey the experience. According to French citizen Jorys L. Lycée Georges Leygues, "This year in high school, we didn't take the time to go further into the underlying ideas of May 1968. We just talked about it during a general class about the political issues in France since 1946. I just remember that there were student uprisings first and then a big general strike that lasted many days." Clearly, Leygues was not able to take in the May 1968 experience in the classroom.

ONE CONCRETE INITIATIVE REFRESH





Let's make memories together. Let's forget the traditional linear view of history. And now let's consider that commemoration is not only about reactivating the past. From Latin "com" – with, together – this word suggests a collective approach in itself. In other words, the neuro-stimulation can be a collective experience, and thus at the level of a city. Our main challenge consists in recreating the togetherness of the commemoration. We have to retrigger the old pathways in the collective brain of the city, and make them transform into new pathways.



Given the importance of active education and recollection in memory storage, we propose usage of space throughout the city to provide a more interactive and dynamic education about events. By emphasizing the sensations experienced by those of a given time period, we hope to better integrate history into the memory of Parisian citizens. Likewise, we hope to encourage the elder generations to continually share and reflect on their own personal history and the history of the city. Thus, by taking advantage of the importance of sensation in memory, we hope to further develop collective memory and strengthen individual memory as well.

Remembering the past can be a window to a brighter future.

We would like to reach all citizens in Paris rather than focusing on those who have already expressed interest in the protests. By redefining Paris as a classroom for all citizens of all ages, socioeconomic backgrounds, and races, we believe this democratic approach to education will maximize the impact on collective memory.

People will experience history throughout the city through more interactive, dynamic and widespread education events that maximize sensation.

We also hope to use this non-conventional form of education to attract those who may otherwise be uninterested in history. Using visually appealing forms of media such as projections and auditory signals and sounds, we believe we can attract a larger audience who may be solely interested in determining what the event is. Moreover, given the proposal's focus on individual experience, citizens will have the opportunity to learn information they could not have found in a book. This is a great way to gather children, adults, and people from different background around historical subjects.

Through exhibits placed throughout the city, we hope to foster communication among population groups to recreate the spirit of any given time. For 1968, Flavio Shiro Tanaka insisted on the “solidarity among people,”^{xx} so the events would try to emulate this atmosphere.

So this project raises the issue of the paradox between top down initiatives (from the government) and bottom up initiatives (from the people, submitted to the government) : and we think that our participative approach is a coherent response that can conciliate both solutions, because the City of Paris will take the lead of the project, and citizens will be able to make it happen actually, only thanks to their participation.

Active Commemoration

Similarly, commemorating historical events in an active and participative way would foster intergenerational links: for instance children could discover the events through our exhibits and then talk about that to their grandparents who might have been there during the events, for instance allowing them to tell the story about their experience 50 years ago.

In addition, what is really interesting here is that we are trying to inform people about an “anti-Establishment” movement, in a very established political system. And we want to make it sound as a community initiative from the people and for the people.

1968: A CASE STUDY





The May 1968 uprisings were a cultural, social and moral turning point in France and had a resounding impact on the society that would be felt for decades to come. One witness of the demonstrations, Beatrice Tanaka, praised the protests, stating: “NGOs, ecology, feminism, and social progress ideas were sown thanks to these uprisings!”^{xx}





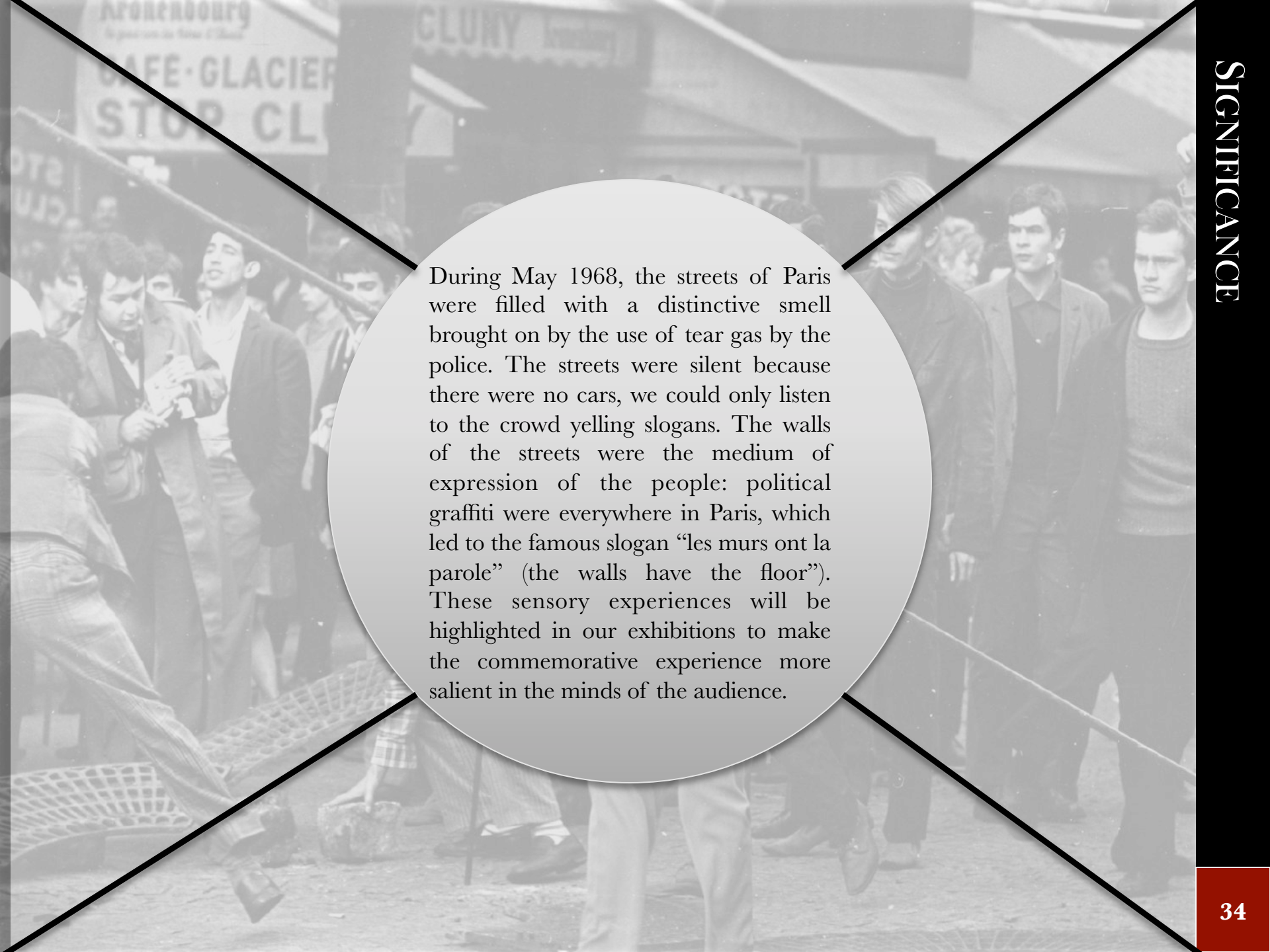
The unrest began with a series of student occupation protests against capitalism, consumerism and traditional institutions, values and order. It then spread to factories with strikes involving 11,000,000 workers, more than 22% of the total population of France at the time, for two continuous weeks. The general strike gathered almost one million persons according to the unions: a symbol of unity between the students and the workers. The movement was characterized by its spontaneous and de-centralized wildcat disposition.

Something special was taking place in the streets of Paris, and no book or class could describe it: it was all about experience and sensation. And this is what we want to recreate.

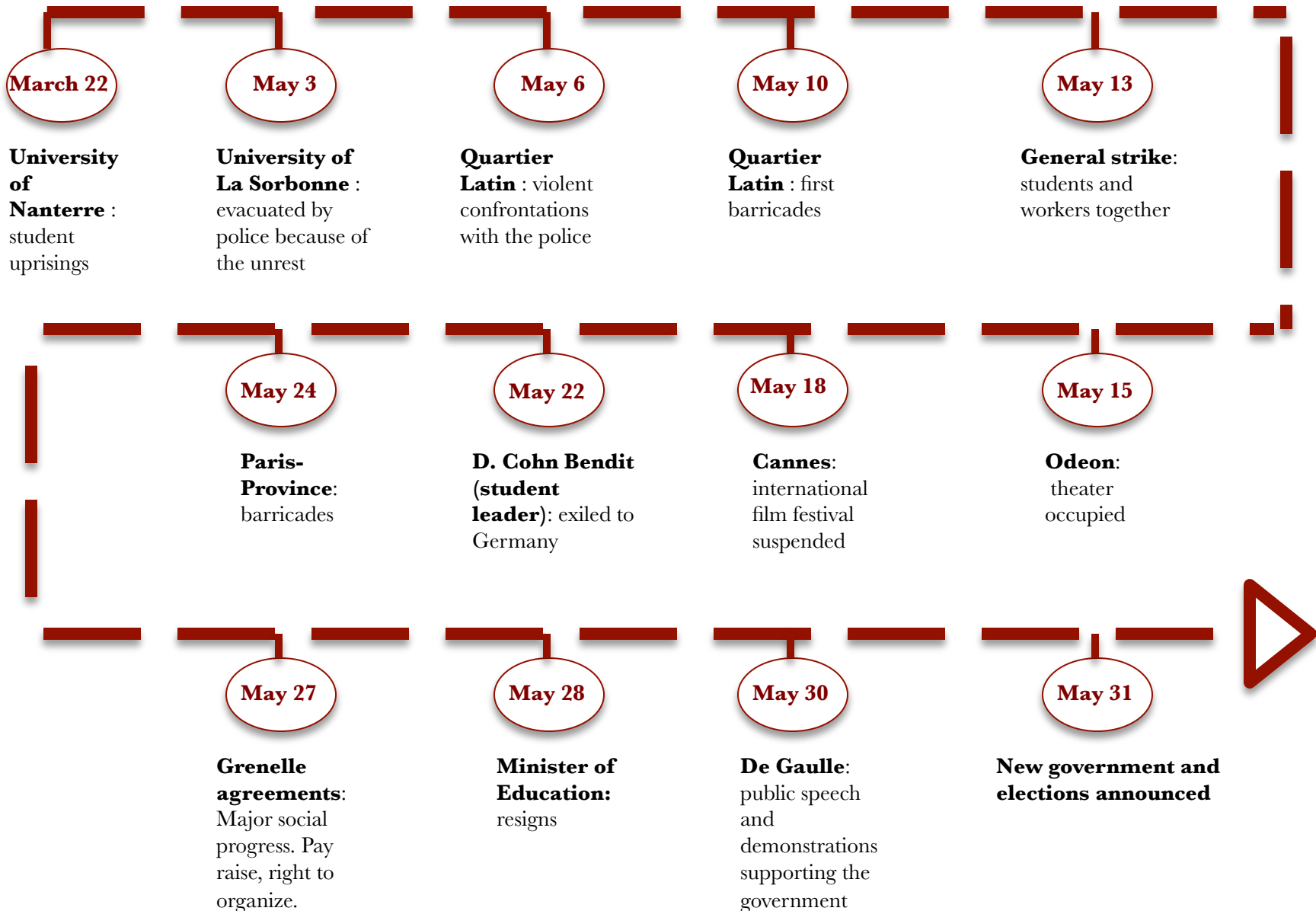
Not only do we want to implement an original way to broadcast the events, but we also want to r e c r e a t e the atmosphere of May 68.

The commemoration of 1968 serves as the perfect testing ground for the use of the city as an active classroom given the timing and nature of the protests. 2018 marks the 50th anniversary of the protests, and as many protestors were in their early 20's at the time, we hope many will be willing to share their stories. This iconic event is also extremely linked with current issues in France, such as freedom of speech or the relationship of youth to law enforcement, matters on which public perceptions have dramatically changed since the Charlie Hebdo attack in January 2015.

Today, people in the subway or in the streets do not talk to one another. In May 68, people gathered in the streets - Place de la Sorbonne, or Place de la Mutualité were common meeting points – to discuss political issues or recent events with strangers. This social aspect is fascinating, and the commemoration of May 68 will work to facilitate this social interaction.



During May 1968, the streets of Paris were filled with a distinctive smell brought on by the use of tear gas by the police. The streets were silent because there were no cars, we could only listen to the crowd yelling slogans. The walls of the streets were the medium of expression of the people: political graffiti were everywhere in Paris, which led to the famous slogan “les murs ont la parole” (the walls have the floor”). These sensory experiences will be highlighted in our exhibitions to make the commemorative experience more salient in the minds of the audience.



EXECUTION

FAITES L'AMOUR
PAS LES MAGASINS





We believe in history as a cycle. May 68 still has to come – or May 2018 at least. Some would call it an aborted revolution, and the aborted part which consisted in ideas, values was felt for decades to come. That's why she suggested us to explore the three steps of collective memory :

- **Reactivation** of a past event, through classical exhibitions.
- **Metonymic** commemoration, which consists in emphasizing the legacy of May 68 and to what extent the past aspirations were made present.
- **Metaphoric** commemoration, the one that raises the issue of the aborted elements of May 68 as a socio-cultural revolution



One example of using space in the city to educate people is the use of displays in Place de la République to combat racial profiling by the police. A series of panels was placed together near a skate park and people could choose to investigate and read the panels if they wanted to learn about racial discrimination. The name of the art project was *l'égalité trahie*.

Connection: Any person walking by could check out the panels, and this is the sort of accessibility that we are attempting to recreate. The installation is well integrated into public space.



Temporary displays are more exciting since people may not know how long they will be there and thus will not want to miss out on experiencing them.

We hope that these public displays will inspire citizens to look into other events happening throughout the city.

Application
of *L'égalité
trahie* to
1968

These public displays will make it difficult for citizens to ignore the commemoration.

While it is easy to just walk past a panel, it is much harder to ignore a temporary display, since temporary displays have the power to jar people out of their routines.

The original Battle of Orgreave was a battle in the sense that it was a confrontation between striking miners and the police. In 2001, this conflict from 1984 was recreated by Jeremy Deller.

Connection: The reenactment involved near a thousand actors including 200 people who were involved in the original event. We want to recreate strikes from May '68 and include people who were present during the Paris strikes also. We hope to create connections between people currently passionate about demonstrating and those who protested in the past.



Another example of using the city as a learning space is the Freedom Trail in Boston, Massachusetts, which passes by many historical sites to teach people about the American Revolution.

Connection: The Freedom Trail tour is a ticketed event, so people have to commit a window of their time to this event.

This conscious commitment ahead of time will make people feel more invested in the event.



We imagine a similar event in Paris to link together all of the events for a given 'Refresh' theme.

Also, the issue of paying for a ticket can be remedied by having the city compensate the tour guides instead.

Application of The Freedom Trail to 1968

We envision a more dynamic system with different events being hosted throughout the year.

Our system makes people familiar with the idea of being educated in a city while also giving them a reason to keep paying attention to different events.

The Louvre museum held an event as part of Paris Plage 2015. Pedestrians could stop by for free and learn about life in Ancient Egypt.

Connection: Bringing the museum outside makes it much more accessible to people. This event did a good job of engaging younger children also, and we want people from all walks of life to be able to appreciate our events.



The artist Yann Toma is planning on illuminating the Eiffel Tower using human energy during the COP21 conference which concerns climate change.

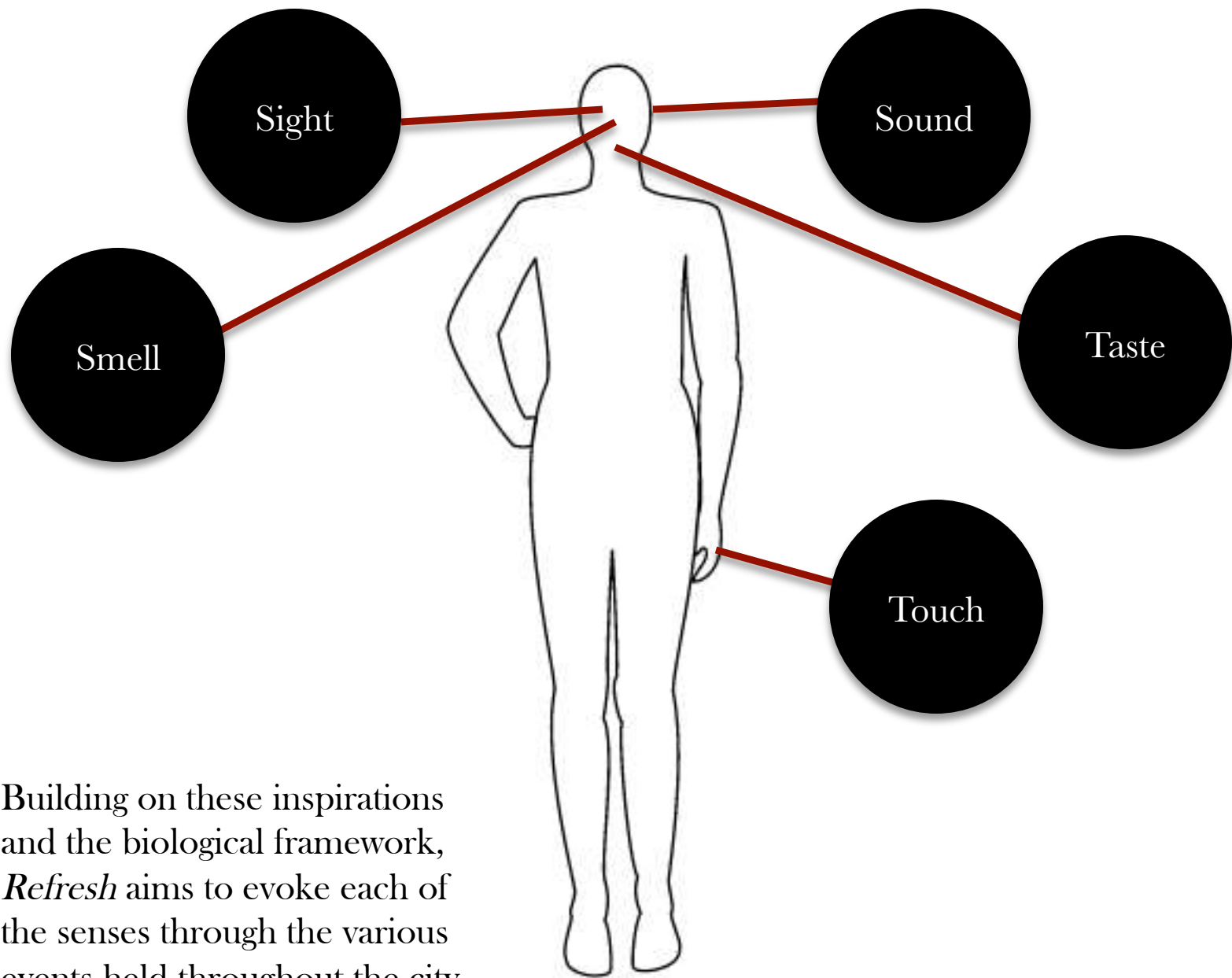
Connection: The large scale of this project and the concept of community engagement for a cause is something that Refresh would like to replicate.



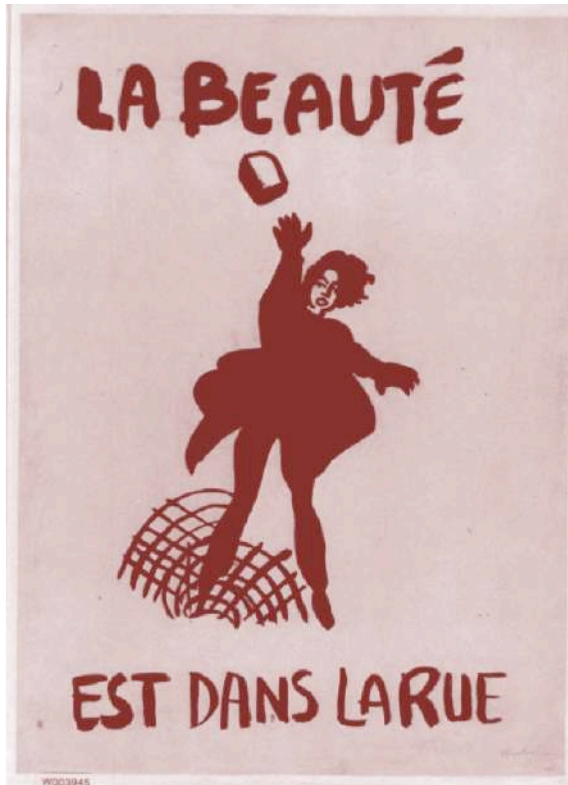
Paris au fil de la Seine was hosted by the museums of Paris. There are frames along the Seine river that people can look through using a free app and compare the present day building with what it looked like in the past. The app also has a map of events throughout the city and gives points for participating.

Connection: Refresh focuses on recreating the everyday life and emotional connection rather than just important events that would be found in a textbook. Using an app to augment reality by combining it with the past is thought-provoking.





Building on these inspirations and the biological framework, *Refresh* aims to evoke each of the senses through the various events held throughout the city.



Sight

To build off of the strength of accessibility from *l'égalité trahie*, we would also like to take advantage of public spaces, but to showcase art. Posters with strong or catchy slogans were a significant part of the May '68 protests.

So, we would like to decorate the underutilized long tunnels in subway stations that connect platforms throughout Paris. Near key sites of May '68, such as Saint-Michel, Cluny-Sorbonne, and Maubert-Mutualité we would like to put posters on the platform and near subway exits and entrances and also replace advertisements with videos of protests.

We targeted subway stations because they have much blank space and many people use them. Subway walls are often undecorated and bland, and we hope that these posters will make commuters curious about how the 50th anniversary of May '68 will be celebrated while also enhancing their subway experience with art.



Sight

We would like to craft a narrative of 1968 in which street performers would guide people around areas relevant to the May '68 protests. The tours would be in French to focus on our target demographic: self-identified Parisians

Bystanders would notice non-tourists being on the tour and be interested in what was going on. These performances could extend beyond just tours though. Street performers could also stage plays or reenactments for those interested. We believe requiring tickets makes people more inclined to stay for the whole tour, and tickets will be subsidized by the City.

Street performers would be appropriate leaders because they are comfortable with taking initiative in public, and we want the experience to be interactive for people involved. We envision people chanting slogans on tours and street performers would not hesitate to instigate chants.



Projections will take place throughout the city on buildings, subway walls, and the ground.

Sight and Sound

Some of these projections will highlight the indirect legacy of 1968 including feminist efforts and greater emphasis on freedom of speech.

Other projections will focus on the experience of 1968. These will feature interviews with individuals who lived through 1968 in Paris, in the suburbs, in other areas of France, and in other countries.

To engage taste and smell, we want to invite local bakeries to sell themed pastries on the side of streets

Eating a chocolate cobblestone cake during the Refresh event for May 1968 is a tasty and memorable way to honor the event.

Taste and Smell

Bakeries are incentivized by the opportunity to make a profit, improve their reputations, so there is no cost to the Mairie de Paris



Make your Own
May 2018! Let the
public tell us and
each other how
they feel about the
legacy of May '68.

This event
would include
putting up white
boards and
markers in
public places

Visual, Sound, Touch

We also want to
engage the public by
hosting and promoting
literary and slam
poetry contests! If
people create content
about May '68, they
will remember it more





Since one of our goals is to encourage conversation about events in 1968, we want to provide people with a means of communicating that they care about the event. Two friends who notice each other displaying pins on backpacks can start talking about which event they attended

Touch



Likewise, a grandparent who sees a “Mai 68” sticker on a grandchild’s laptop or notebook may be excited to strike up a conversation about the protests. Something else that can be done with stickers is to apply them to public places such as street benches, the floor, on trash cans, or in the subway with small facts about life in 1968.

Small prompts such as “if you were a student in Paris in 1968, you would have had extra vacation months” may encourage people to think about the 1968 protests in a place where they otherwise would not have. And this is our goal: to try and refresh the collective memory of people in Paris about the events of May 1968.

Collaborations with museums such as the Louvre could facilitate multi-sensory experiences through special exhibits throughout the museums. For instance, at Fondation Louis Vuitton, there are two large rooms with wide screens and detailed sound systems.

These collaborations could help expand the diversity of events held by making use of existing technology in these spaces.

In the first one, there are 2 screens with different concerts of classical music. For May 1968 they could show demonstrations or documentary reports. The second one is smaller, with 4 screens on the 4 walls of the room. The audience is in the middle of it, and they can see people getting ready for gunfire on each screen. At one point they all shoot at the same time, making an incredible experience of the sound of gunfire. We would like to bring this technology outdoors and apply this with chants of the 1968 demonstrations which were fascinating. These could also be put in the subway and public spaces.

Touch and Sight: We hope to use collaboration with various private and public organizations and businesses to allow citizens to graffiti slogans from May 1968 onto walls throughout the city.

Touch and Sight: Citizens will be given the opportunity to write down what May 1968 meant to them, what the current May 1968 is, and what they have learned.

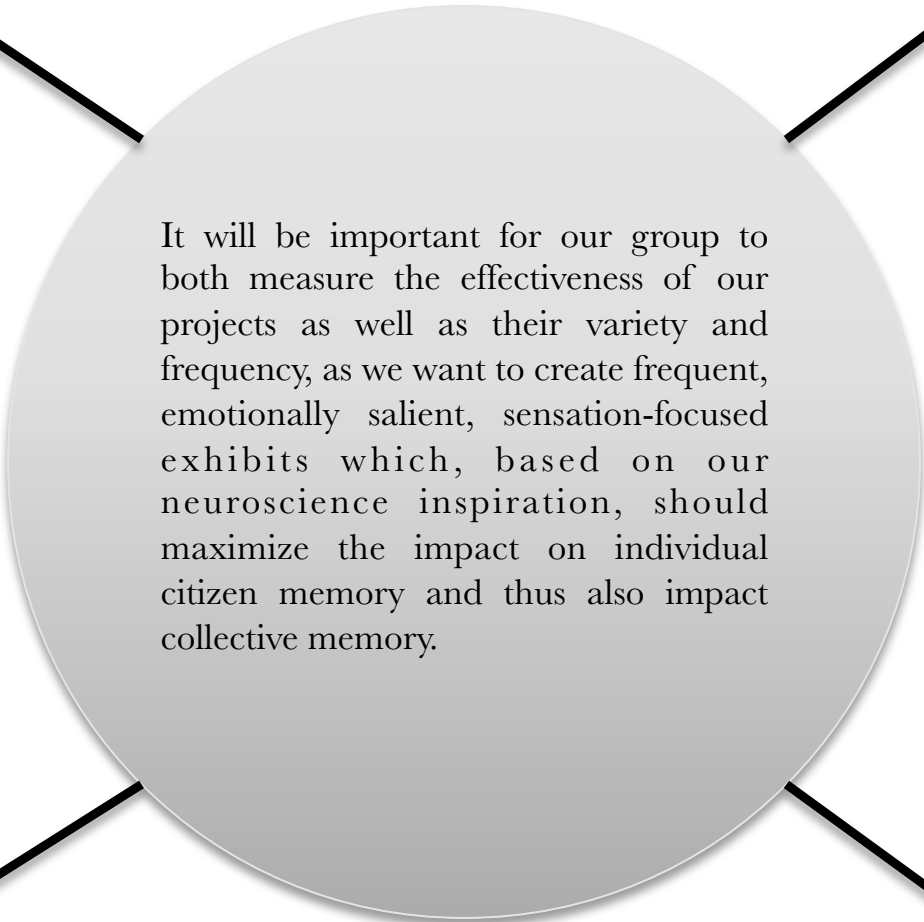
Sound: We hope to also arrange large public chanting and protests throughout the city to revive the revolutionary atmosphere of 1968. To further engage citizens, *Refresh* will also arrange art competitions, slam poetry nights, and concerts that are inspired by the spirit of May 1968.

Item	Cost	Quantity	Sub Cost
20m x 5m Projection Screen	1000€ per day	10 days	10 000€
6m x 4.5m Projection Screen	350€ per day	3 screens 10 days	3 500€
DEP washable spray paint	8€ per can	150 cans	1 200€
Posters, Stickers	5€ per item	2000 items	10 000€

Total Projected Cost: 24 700 €

ASSESSMENT

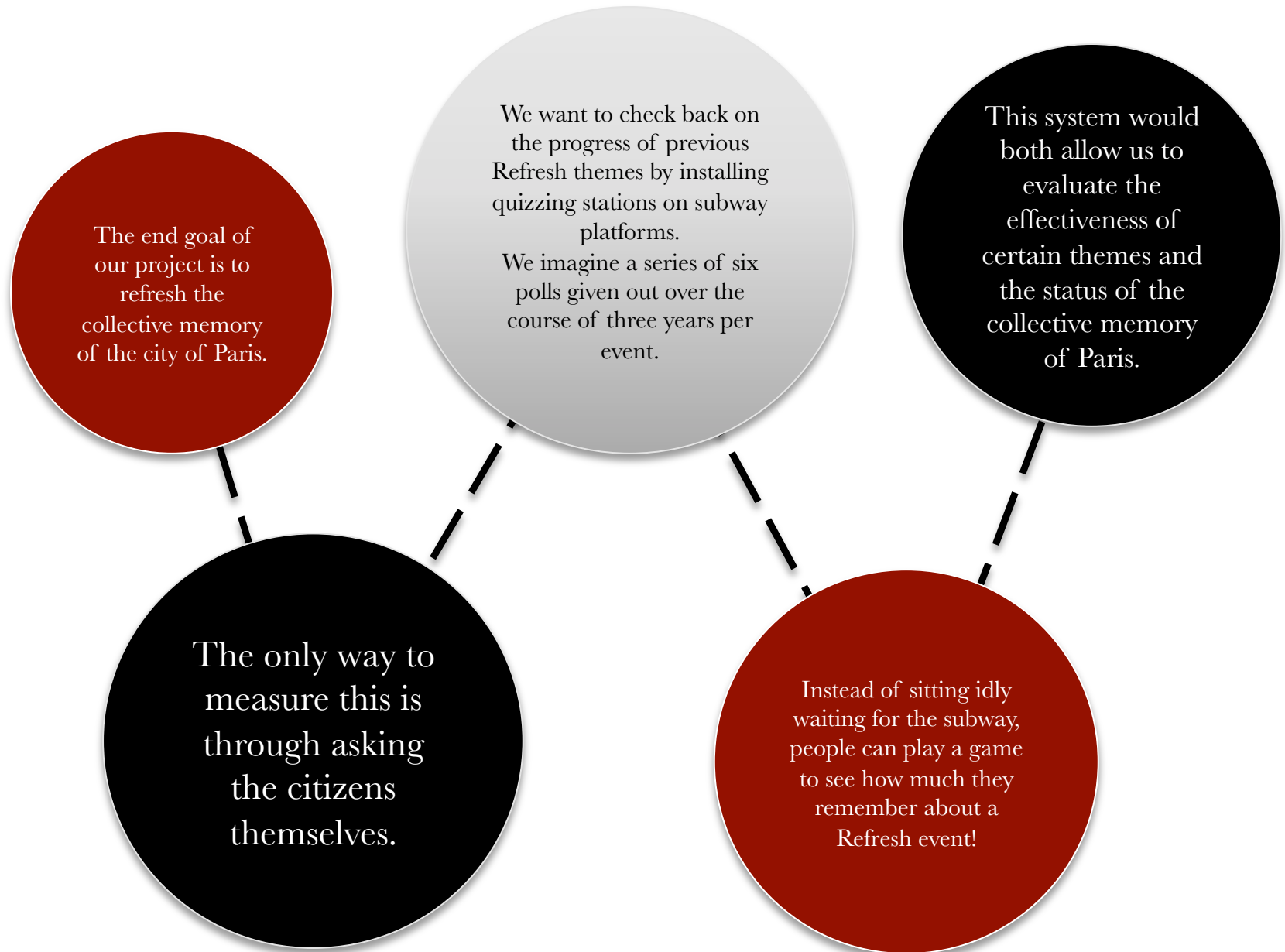




It will be important for our group to both measure the effectiveness of our projects as well as their variety and frequency, as we want to create frequent, emotionally salient, sensation-focused exhibits which, based on our neuroscience inspiration, should maximize the impact on individual citizen memory and thus also impact collective memory.

One trap that our group wanted to avoid was to evaluate the effectiveness of marketing rather than assessing the success of a project. Measuring how many people attend a play reveals virtually nothing about how effective the play was at communicating its message. A better metric may be to have people waiting in elevators or along stairs to listen if people were still talking about the play as they were leaving. We wanted our evaluation criteria to be endemic to our project.

We are faced with the issue of assessing concepts as broad as collective memory and group identity from multiple angles. One approach involved installing sensors in public infrastructure or take advantage of existing cameras in private properties in an attempt to acquire knowledge about each participant, but this approach is not practical in all situations. Another strategy was to search or ask for signs from the participants themselves. In the end, we used a combination of detected and inputted metrics.



Street Performances: Have one of the performers count the number of people who join in a chant or make note of the level of applause after a show

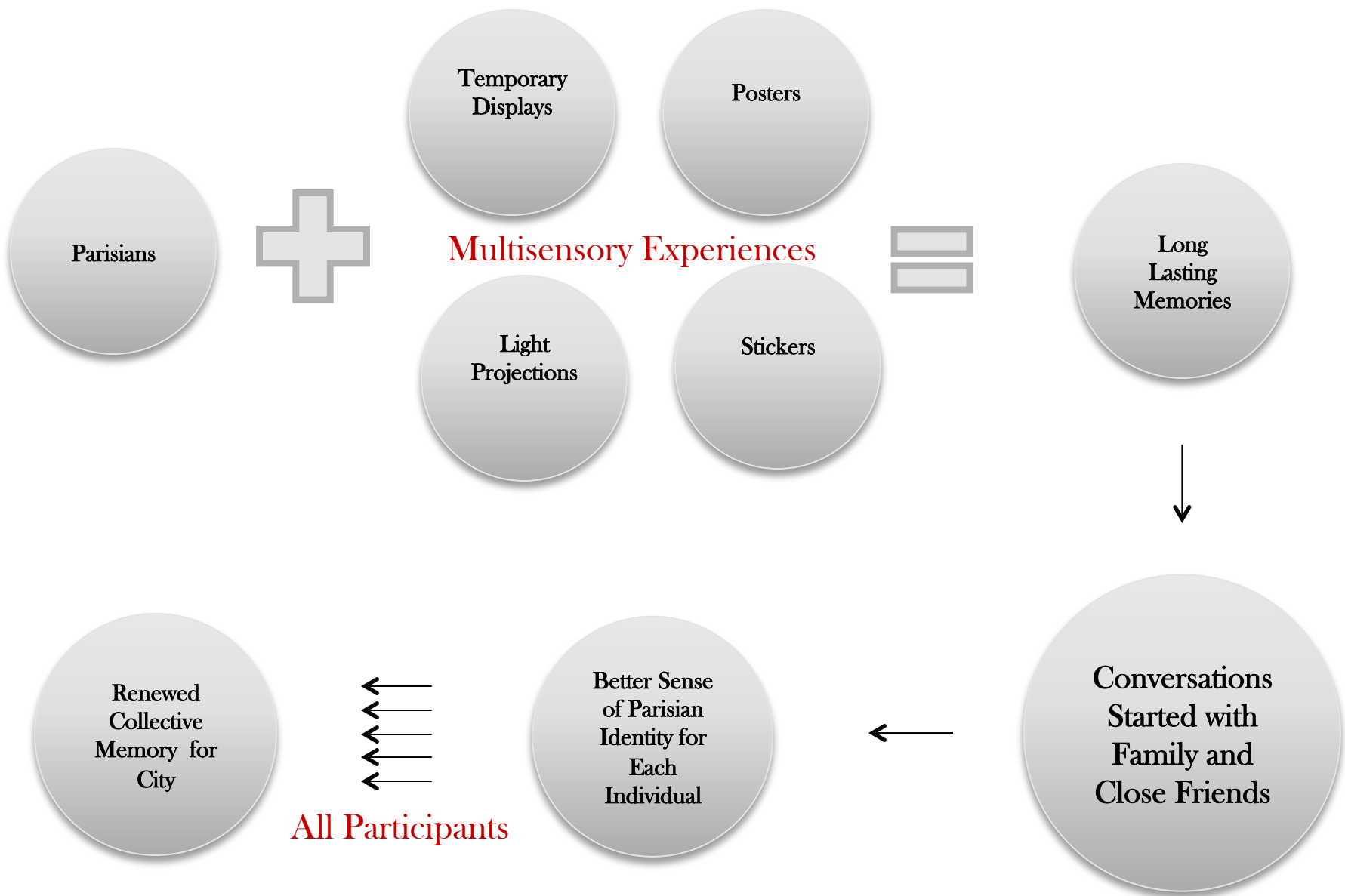
Intergenerational Interaction: Reach out to citizens via social media, email, and phone and hand out surveys inquiring about participation in events.

Posters in the Subway: Measure average walking speed before and after the implementation of the posters. If the walking speed decreases after the posters are put into place, then people are likely paying attention to them. Alternatively, install buttons to show approval, like the ones that they have in Gare du Nord that show how many times the button has been pressed.

We will track relevant hashtags on Twitter and look at social media word clouds to determine effectiveness. These will also provide insight into which events were most popular.

We will also maintain an email address and phone number for citizens to reach out to with their feedback.

To track physical objects that are given out such as posters and stickers, the number of mementoes taken could be representative of how much the patrons are engaged in the event. These statistics would also provide insight into how long-lasting the impact is, as these physical objects will persist even after the event ends.



Refresh

*Reinvigorating the
Collective Memory of
the City of Paris*

We hope our suggestions will help to make May 2018 memorable, in order to commemorate history in a new and innovative way and adapt these means to other future events.

Sincerely,
Jean-Brice, Layla, and Michael



HARVARD
Summer School



- I: "The Color of May 1968." *The Color of May 1968*. N.p., n.d. Web. 13 July 2015. <<https://etudesphotographiques.revues.org/3456?lang=fr>>.
- II: Qu"Quotes About Neuroscience." N.p., n.d. Web. 15 July 2015. <<http://www.goodreads.com/quotes/tag/neuroscience>>.
- III: Reber, Paul. "What Is the Memory Capacity of the Human Brain?" *Scientific American Global RSS*. N.p., 1 Apr. 2010. Web. 15 July 2015. <<http://www.scientificamerican.com/article/what-is-the-memory-capacity/>>.
- IV: "Brain Facts and Figures." *Brain Facts and Figures*. N.p., n.d. Web. 19 June 2015. <<https://faculty.washington.edu/chudler/facts.html>>.
- V: "Brain 101: Topics in Neuroscience." *Episodic Memory*. N.p., n.d. Web. 17 July 2015. <<http://memory.ucsf.edu/brain/memory/episodic>>.
- VI: Yin, Jun, and Quan Yuan. "Structural homeostasis in the nervous system: a balancing act for wiring plasticity and stability." *Frontiers in cellular neuroscience* 8 (2014).
- VII: Neves, Guilherme, Sam F. Cooke, and Tim VP Bliss. "Synaptic plasticity, memory and the hippocampus: a neural network approach to causality." *Nature Reviews Neuroscience* 9.1 (2008): 65-75.
- VIII: Alberts B, Johnson A, Lewis J, et al. *Molecular Biology of the Cell*. 4th edition. New York: Garland Science; 2002.
- IX: Yin, Jun, and Quan Yuan. "Structural homeostasis in the nervous system: a balancing act for wiring plasticity and stability." *Frontiers in cellular neuroscience* 8 (2014).
- X: "THE BRAIN FROM TOP TO BOTTOM." *THE BRAIN FROM TOP TO BOTTOM*. N.p., n.d. Web. 14 July 2015. http://thebrain.mcgill.ca/flash/i/i_07/i_07_m/i_07_m_tra/i_07_m_tra.html.
- XI: Neves, Guilherme, Sam F. Cooke, and Tim VP Bliss. "Synaptic plasticity, memory and the hippocampus: a neural network approach to causality." *Nature Reviews Neuroscience* 9.1 (2008): 65-75.
- XII: Trafton, Anne. "How Brain Waves Guide Memory Formation." *MIT News*. N.p., 23 Feb. 2015. Web. 14 July 2015. <<http://newsoffice.mit.edu/2015/brain-waves-guide-memory-formation-0223>>.
- XIII: McGaugh, James L. "Memory--a century of consolidation." *Science* 287.5451 (2000): 248-251.
- XIV: Miller, Greg. "How Our Brains Make Memories." *Smithsonian*. N.p., May 2010. Web. 15 July 2015. <<http://www.smithsonianmag.com/science-nature/how-our-brains-make-memories-14466850/?no-ist>>.
- XV: Squire, Larry R., and Pablo Alvarez. "Retrograde amnesia and memory consolidation: a neurobiological perspective." *Current opinion in neurobiology* 5.2 (1995): 169-177.
- XVI: Walker, Matthew P., et al. "Dissociable stages of human memory consolidation and reconsolidation." *Nature* 425.6958 (2003): 616-620.
- XVII: "WPR." *Paris Population 2015*. N.p., n.d. Web. 19 June 2015. <http://worldpopulationreview.com/world-cities/paris-population/>.
- XVIII: Laskow, Sarah. "How a City's Collective Memory May Predict the Future." N.p., 17 Mar. 2015. Web. 16 July 2015. <<https://nextcity.org/daily/entry/cities-have-memory-predict-future>>.
- XIX: "A Quote by John Irving." *Goodreads*. N.p., n.d. Web. 15 July 2015. <<http://www.goodreads.com/quotes/32128-the-history-of-a-city-was-like-the-history-of>>.
- XX: Tanaka, Flavio Shiro, and Beatrice Tanaka. "The 1968 Paris Protests." Interview. 13 July 2015.
- XXI: "Memory Recall/Retrieval - Memory Processes - The Human Memory." *Memory Recall/Retrieval - Memory Processes - The Human Memory*. N.p., n.d. Web. 17 July 2015. <http://www.human-memory.net/processes_recall.html>.
- XXII: "Smells Can Trigger Emotional Memories, Study Finds." *The Telegraph*. Telegraph Media Group, n.d. Web. 17 July 2015.

Page One Background Image: Shiro, Flavio. "Black and White Image, 1968 Protest." Photo. N.p., n.d. Web. 13 July 2015.

Page Two Images:

Leblanc, Audrey. *Fig. 1. Paris Match N°998, 15-22 Juin 1968*. Digital image. *Le Couleur De Mai 1968*. Le Clin De L'œil, 13 July 2011. Web. 27 June 2015. <<http://culturevisuelle.org/clindeloil/2011/07/13/la-couleur-de-mai-1968/>>.

Leblanc, Audrey. Paris Magazine Cover 2. Digital image. *De La Photographie D'actualité à L'icône Médiatique*. Le Clin De L'œil, 3 Sept. 2010. Web. 27 June 2015. <<http://culturevisuelle.org/clindeloil/2010/03/09/de-la-photographie-dactualite-a-licone-mediaticue-%C2%AB-la-marianne-de-68-%C2%BB-22/>>.

White, Iain. Paris Magazine Cover 3. Digital image. *Agitprop*. Pinterest, n.d. Web. 27 July 2015. <<https://www.pinterest.com/irdw/agitprop/>>.

Page Three Images:

Miran, Reuven. Throwing Cobblestone. Digital image. *Remember Paris*. Haaretz, 18 Apr. 2011. Web. 28 July 2015. <<http://www.haaretz.com/weekend/week-s-end/remember-paris-1.356611>>.

Neuron image. Digital image. N.p., n.d. Web. 27 June 2015. <<http://cocorofeel.blog119.fc2.com/blog-date-201207.html>>.

The police throws back. Digital image. *PARIS 1968 – THE REVOLUTION OF THE STREET, NOT THE BEACH*. MIISTA, n.d. Web. 28 July 2015. <<http://miista.com/paris-1968-the-revolution-that-was-not-what-it-seemed/>>.

3 Planes. Digital image. *Bastille Day Airshow :: Paris 2011*. Paris Patisseries, 19 July 2011. Web. 28 July 2015. <<http://www.parispatisseries.com/2011/07/19/bastille-day-airshow-paris-2011/>>.

Page Five Background Image: Soyez Realistes, Demandez l'impossible. Digital image. Dermot Streeran:France :The General Strike of 1968. EAgainst, 4 Sept. 2012. Web. 16 July 2015. <<http://eagainst.com/articles/dermot-streeran-francethe-general-strike-of-1968/>>.

Page 12 Background: Viollet, Roger. Sous les pavés, la plage. Digital image. Parisien Images. Parisienne De Photographie, n.d. Web. 16 July 2015. <<http://www.parisenimages.fr/en/collections-gallery/8870-7-events-may-june-1968-paris-revolutionnary-slogan-paves-plage-under-cobbles-beach>>.

All:

Arc du Triomphe People. Digital image. *Cultural Characteristics*. Tangient LLC, n.d. Web. 28 July 2015. <<http://3mahoganymilan.wikispaces.com/Cultural+Characteristics>>.

Bernardo, Angela. Black and white neurons. Digital image. Think Big, 9 May 2014. Web. 28 July 2015. <<http://blogthinkbig.com/science-myths-iii-can-adults-generate-new-neurons/>>.

Blue Brain Pink Spots. Digital image. *Seizure Medications*. Pinterest, n.d. Web. 28 July 2015. <<https://www.pinterest.com/completeonlinep/seizure-medications-seizure-disorders/>>.

Brain City. Digital image. *Your Brain Is Organized Like a City*. LiveScience, 3 Sept. 2009. Web. 27 July 2015. <<http://www.livescience.com/5674-brain-organized-city.html>>.

Communication Neurons. Digital image. *Brain Cells Chat, Even Without a Synapse*. Science Magazine, 29 Oct. 2009. Web. 27 July 2015. <<http://news.sciencemag.org/2009/10/brain-cells-chat-even-without-synapse>>.

High detail Neuron cell anatomy. Digital image. *TurboSquid*. N.p., n.d. Web. 28 July 2015. <<http://www.turbosquid.com/3d-models/neuron-cell-3d-model/275430>>.

Irwin, Sandra I. Blue Techno Brain. Digital image. *National Defense*. National Defense Industrial Association, 9 Apr. 2013. Web. 28 July 2015. <<http://www.nationaldefensemagazine.org/blog/lists/posts/post.aspx?ID=1101>>.

Leblanc, Audrey. *Fig. 1. Paris Match N°998, 15-22 Juin 1968*. Digital image. *Le Couleur De Mai 1968*. Le Clin De L'œil, 13 July 2011. Web. 27 June 2015. <<http://culturevisuelle.org/clindeloil/2011/07/13/la-couleur-de-mai-1968/>>.

Leblanc, Audrey. Paris Magazine Cover 2. Digital image. *De La Photographie D'actualité à L'icône Médiatique*. Le Clin De L'œil, 3 Sept. 2010. Web. 27 June 2015. <<http://culturevisuelle.org/clindeloil/2010/03/09/de-la-photographie-dactualite-a-licone-mediaticue-%C2%AB-la-marianne-de-68-%C2%BB-22/>>.

Page Nine Male Brain:

Miller, Greg. Image from Photo Researchers, Inc. Digital image. N.p., May 2010. Web. 16 July 2015. <<http://www.smithsonianmag.com/science-nature/how-our-brains-make-memories-14466850/>>.

Page Ten Paris Skyline:

Paris Skyline. Digital image. N.p., n.d. Web. 16 July 2015. <<https://stereographics.wordpress.com/>>.

Page Eleven Top Section:

Dityvon, Claude. Prenez Vos Désirs Pour Des Réalités. Digital image. Chambrenoir. N.p., n.d. Web. 16 July 2015. <<http://www.chambrenoire.com/claude-dityvon/mai68/dityvon000046.jpg-photo.html>>.

Page Thirteen Background: Ekg. L'imagination Prend Le Pouvoir. Digital image. Vandalog. N.p., 23 Aug. 2013. Web. 16 July 2015. <<https://blog.vandalog.com/2013/08/limagination-prend-le-pouvoir/>>.

Page Fourteen Background Image: Shiro, Flavio. "Black and White Image, 1968 Protest." Photo. N.p., n.d. Web. 13 July 2015.

Page Twenty Image: Anuszewski, Artur. Paris - The Chapelle de la Sorbonne. Digital image. My World. Google Sites, n.d. Web. 17 July 2015. <<https://sites.google.com/site/myworldarturanuszewski/the-european-churches-2>>.

Page Twenty-One Image: Wolf, Lindsey. Tribute in Light. Digital image. Elephant Journal. Waylon H. Lewis Enterprises, 10 Sept. 2008. Web. 17 July 2015. <<http://www.elephantjournal.com/2008/09/tribute-in-light/>>.

Page Twenty-Two Image: Shah, Yagana. Let the Person Speak. Digital image. Huffington Post. N.p., 1 June 2015. Web. 17 July 2015. <http://www.huffingtonpost.com/2014/11/17/caregiving-for-friends-and-family_n_6141568.html>.

Page Twenty-Three Image: Holocaust Memorial. Digital image. The Holocaust Memorial. Historvius, n.d. Web. 17 July 2015. <<http://www.historvius.com/the-holocaust-memorial-berlin-471/>>.

Page Twenty-Four Images:

Mai 68 button. Digital image. Marxist Books. Shopify, 2015. Web. 17 July 2015. <<http://www.marxistbooks.com/collections/buttons>>.

La lutte continue. Digital image. Mai 68 En France. Science Po, n.d. Web. 17 July 2015. <<http://www.sciencespo.fr/bibliotheque/en/produits/bibliographies/mai68/images>>.

Page Twenty-Five Image:

Giulllia. Plutot La Vie. Digital image. DeviantArt. N.p., 28 June 2008. Web. 17 July 2015. <<http://giulllia.deviantart.com/art/Plutot-la-vie-90050048>>.

Page Twenty-Six Image:

Shiro, Flavio. "Black and White Image, 1968 Protest." Photo. N.p., n.d. Web. 13 July 2015.

Page Twenty-Seven Image:

Feedback Button, Gare Du Nord. Personal photograph by Michael Wong. 2015.

Page Twenty-Eight Image: Cell Phone Icon. Digital image. Top Images. N.p., n.d. Web. 17 July 2015. <<http://top-img.com/c/cell-phone-icon>>.

Page Sixteen Background: Les Murs Avaient Des Oreilles Maintenant Ils Ont La Parole. Digital image. Overblog. N.p., n.d. Web. 16 July 2015. <<http://a54.idata.over-blog.com/3/42/41/98/Images-peu-sages/murs-avaient-des-oreilles-now-ils-ont-la-parole.JPG>>.

Page Seventeen Image: Panel at l'egalite trahie. Digital image. Facebook. N.p., 10 June 2015. Web. 15 July 2015.

<<https://www.facebook.com/587416461304467/photos/pb.587416461304467.-2207520000.1437143507./890115207701256/?type=1&theater>>.

Page Eighteen Image: La Beaute Est Dans La Rue. Digital image. Bagger. N.p., 27 June 2011. Web. 17 July 2015. <<http://bagger.ce.blogspot.fr/2011/06/mai-68-posters.html>>.

Page Nineteen Image: Cape Cod Gift Shop. Freedom Trail Map. Digital image. Pinterest. N.p., n.d. Web. 17 July 2015.

<<https://www.pinterest.com/capecodgiftshop/things-for-my-wall/>>.

Cobblestone. Digital Image. *AliExpress*. N.p., n.d. Web. 31 July 2015. <<http://fr.aliexpress.com/w/wholesale-cobblestone-brick.html>>/.