MANAGING DENSITY

THE REEMERGENCE OF MUSEUMS IN THE NEW NORMAL

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INTRODUCTION

As public institutions, the challenge ahead is to keep museums and visitor attractions open while creating a safe and engaging places for staff and visitors. This will require modifications to the visitor experience, while also presenting opportunities for innovation.

RISK
The coronavirus has launched us all into an era of risk. Every one of us, from individuals to institutions is making daily decisions, albeit at different scales, about how to interact in this highly volatile environment.

DENSITY
Density is one of the few levers that we can use to manage risk. It’s a simple formula. Stand at least six feet apart, and the odds are that we will inhibit its’ path. Stand closer together. It will more likely spread if it is present.

FLUIDITY
One thing that we have learned is that public health officials and politicians do not make long term promises. Listen to the Virus is the mantra of today. There is no basis for planning beyond 45-60 days because the factors that would help us make hard decisions are fluid, and will likely remain that way for quite some time.

AGILITY
The opening of our public spaces will not be a linear or orderly process. When the doors are opened, visitor behaviors will be unpredictable. The Coronavirus will be unpredictable in response, resulting in directives from local officials that will require rapid responses to how we manage our spaces.

The following is our offer of a high-level framework for how to navigate toward the New Normal of museums and visitor attractions in this epic moment in our history.
"Density is the enemy here, for this particular time."
—Gov. Andrew Cuomo, WSJ
**DENSITY MODELS**

The phases of the journey proposed here align with several published models. The premise is that when more people assemble in proximity, the virus propagates faster. The more often we come together, the more likely it will return.

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHUTDOWN</td>
<td>LOW DENSITY</td>
<td>MODIFIED DENSITY</td>
<td>HIGH DENSITY</td>
</tr>
</tbody>
</table>

- **Social Isolation**
  - Small Units
  - 1-10 people

- **Social Distance**
  - < 50 people

- **Managed Events & Gatherings**
  - < 250 people

- **Hygienic Mass Gatherings**
  - > 250 people

*The Four Possible Timelines for Returning to Normal*, Joe Pinsker, The Atlantic, March 26, 2020

*National Coronavirus Response: A Road Map to Reopening*, American Enterprise Institute, March 29, 2020
**COVID-19 USA**

Many variables will impact our path from low density to high density gatherings over the next 12-18 months.

<table>
<thead>
<tr>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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</thead>
<tbody>
<tr>
<td>JAN</td>
<td>FEB</td>
<td>MAR</td>
</tr>
<tr>
<td>USA PH. 1</td>
<td>HEALTHCARE READINESS FOR RECURRENCE</td>
<td>HERD IMMUNITY 60-80% POP.</td>
</tr>
<tr>
<td></td>
<td>POSSIBLE SUMMER DORMANCY</td>
<td></td>
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<tr>
<td>POTENTIAL SECOND WAVE</td>
<td></td>
<td></td>
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<tr>
<td>HIGHER AVAILABILITY OF TESTING FOR SURVEILLANCE</td>
<td></td>
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<tr>
<td>ANTI BODY TESTS TO CONFIRM EXPOSURE POP. @ 60-80%</td>
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<tr>
<td>NEW TREATMENTS TO ACCELERATE RECOVERY</td>
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<tr>
<td>VACCINE DEVELOPMENT</td>
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<tr>
<td>LOW DENSITY</td>
<td>MODIFIED DENSITY</td>
<td>HIGH DENSITY</td>
</tr>
<tr>
<td>&lt; 50 @ 6’</td>
<td>&lt; 250 @ 6’</td>
<td>HYGIENIC MASS EVENTS &gt;250</td>
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</tbody>
</table>

USA PH. 1

NEW NORMAL

MANUFACTURING & DISTRIBUTION

5/14/2020
# REOPENING PLANS

There is no national framework for reopening. The White House and each state are paving their own way with little coordination.

<table>
<thead>
<tr>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
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</thead>
<tbody>
<tr>
<td><strong>CDC/WHITEHOUSE</strong></td>
<td><strong>Phase 2</strong></td>
<td><strong>Phase 3</strong></td>
</tr>
<tr>
<td>WHEN IN PUBLIC (e.g., parks, outdoor recreation areas, shopping areas...Social settings of more than 10 people, where appropriate distancing may not be practical, should be avoided unless precautionary measures are observed.</td>
<td>All individuals, WHEN IN PUBLIC (e.g., parks, outdoor recreation areas, shopping areas), should maximize physical distance from others. Social settings of more than 50 people, where appropriate distancing may not be practical, should be avoided unless precautionary measures are observed.</td>
<td>LARGE VENUES (e.g., sit-down dining, movie theaters, sporting venues, places of worship) can operate under moderate physical distancing protocols.</td>
</tr>
<tr>
<td>Avoid SOCIALIZING in groups of more than 10 people in circumstances that do not readily allow for appropriate physical distancing (e.g., receptions, trade shows)</td>
<td></td>
<td>LARGE VENUES (e.g., sit-down dining, movie theaters, sporting venues, places of worship) can operate under limited physical distancing protocols.</td>
</tr>
<tr>
<td>LARGE VENUES (e.g., sit-down dining, movie theaters, sporting venues, places of worship) can operate under strict physical distancing protocols</td>
<td></td>
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</tr>
</tbody>
</table>

| **CALIFORNIA** | **Phase 2** | **Phase 3** |
| Potential opening of some retail, schools, manufacturing, offices and public spaces, with social-distancing rules | Potential opening of higher-risk businesses, such as gyms, hair and nail salons, movie theaters, religious institutions and sports without live audiences | Potential opening of highest-risk businesses, such as concert venues, convention centers and sports with live audiences |

| **FLORIDA** | **Phase 2** | **Phase 3** |
| | (PHASE 1) All theme parks should operate under 50% capacity | (PHASE 2) All theme parks 75% capacity for phase two. |

| **TEXAS** | **Phase 2** | **Phase 3** |
| PHASE II: APRIL 27 All museums and libraries may open under the same 25% occupancy limitation, but interactive areas of museums must remain closed. State libraries and museums will open by May 1, and local public museums and libraries may reopen only if permitted by the local government. | PHASE III: MAY 11 Possibly 50% Occupancy | |

| **NEW YORK** | **Phase 2** | **Phase 3** |
| 5/4/2020 Gov. Cuomo | Professional Services | Restaurants/Food Services |
| | Finance & Insurance | Hotels/ Accommodations |
| | Retail | Arts/Entertainment/Recreation |
| | Administrative Support | Education |
| | Real Estate/Rental Leasing | |

There is no national framework for reopening. The White House and each state are paving their own way with little coordination.
**LEISURE LANDSCAPE**

With high density gatherings on hold, cultural attractions have an opportunity to capture new audiences.

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<tr>
<th>2020</th>
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</table>
| **PUBLIC PARKS & BEACHES** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **ZOOS & GARDENS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **SOCIAL SHOPPING** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **MUSEUMS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **HANDS-ON MUSEUMS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **VISITOR ATTRACTIONS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **THEME PARKS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **RECREATIONAL SPORTS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **MOVIE THEATERS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **PERFORMING ARTS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **SPORTING EVENTS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **FAIRS & FESTIVALS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
| **ARENA CONCERTS** | | | **LOW DENSITY**  
| **MODIFIED DENSITY**  
| **HIGH DENSITY**  |
There is an emerging segmentation of society that may change the way we design experiences long into the future. At times it looks like the red/blue, urban/rural split that is already fracturing the U.S., but as the virus moves across the country, the schisms are not so clear. Regardless, all will be impacted by the economic devastation that lies ahead.

**NORMAL FOR WHO?**

Despite the fact that young people are getting sick, and a small number are dying, a significant number of young and middle-aged feel that their good health will protect them from what many think is no more than a bad flu. Call them knuckleheads or libertarians, when the doors open, they will likely be ready to jump into normal life with gusto.

**TEFLONICS**

Frontline workers in healthcare, emergency services, retail, transportation, delivery and even manufacturing are taking the brunt of the virus. A significant number are people of color, often living in multi-generational households, where they live in fear of bringing the virus home to vulnerable family members.

**THE FRONTLINE**

COVID-19 has been described as a war. Like a war it will leave many with an ever-present anxiety, a form of post-traumatic shock syndrome. Like 9/11, a generation of young people will always live with the memory of this moment, leading to unpredictable levels of lingering anxiety about moving amidst crowds, or even hugging a friend.

**TENTATIVES**

Anyone over the age of 65, or with compromised immune systems due to various health issues will not be comfortable stepping out until there are trusted therapies and vaccines. Those in households with a vulnerable will be faced with living just as cautiously, for fear of unknowingly exposing their family members.

**VULNERABLES**
MUSEUMS & VISITOR ATTRACTIONS

Museums and visitor attractions play a trusted role in communities.

Each will have to reassure visitors that they can provide a safe, hygienic experience, with predictable and controlled pathways.

Traditional high-density summer activities—sporting events, fairs, festivals, concerts, international travel—will not be happening.

Museums and visitor attractions can take this moment to capture new regional audiences.

The challenge is to do that in a manner that enhances rather than detracts from the experience.
THE NEW NORMAL

Social distancing and rigorous hygienic standards inspire a new generation of innovative operations and experiences designed for small multi-generational units.

HYGIENE
Good hygiene will be a mutual pledge of trust between visitors and the institution. Online and at the front door, all parties commit to elevated standards of behavior, transparency and mutual respect.

SOCIAL UNITS
Visits and ticketing will be designed to accommodate social distancing between small units that stay together, each knowing and trusting the health status of their companions.

DENSITY
Regional authorities will establish broad parameters by phase, but operators will design and manage density levels to balance safety and comfort for all.

PATHWAYS
Efficient flow-thru is encouraged by offering visitors a choice of paths and destinations based on interests, themes or challenges with reserved start times and clearly established dwell times.

AMPLIFICATION
An overlay of sound, light and projections are used to amplify art, objects and architecture and signal a beginning, middle and end of timed experiences in every space.

LIVE
Regional artists are offered intimate stages to surprise visitors with complementary live performances as appropriate, gallery by gallery, with short vignettes that prompt movement.
HYGIENIC OPERATIONS

The requirements of screening visitors for symptoms, educating them about social distancing and isolating them if necessary, is well beyond the traditional skill set of museum staff.

This process may either be avoided or outsourced to local public health resources and integrated into the regional contact tracing network. Managing a health check opens up privacy and liability issues. A signed pledge of health by visitors may emerge as the best solution for all.

HYGIENE

ONLINE PLEDGE
New Normal Orientation
Social Unit Pledge

ON-SITE PLEDGE
Individual Pledge
Face Masks (Sales)
Hand Sanitizers
Touch screen Stylus
Download Tracing APP

COVID-19 EDUCATION
Why social distance
Social distance basics
Hand washing stations
How to talk to disrupters
How long will this last?

HEALTH CHECK
Temperature Check
Secondary Screening
Isolation Space
Security
Contact Tracing Hub?

Managed by Regional Public Health System
TOGETHER

Visitors have always arrived as social units, but the New Normal will ask them to move together throughout their visit.

Communication, interpretation and interaction will engage the group, recognizing that there are diverse combinations of individuals that will connect to the experience in different ways.

PERSONALIZED FOR US

Each institution will design a menu of prescribed paths and experiences based on the interests of small multi-generational groups. The menu of experiences may change frequently, based on learnings over time.

ONLINE BOOKING

Online reservations give groups the opportunity to make choices about paths and destinations in advance. Timed reservations will relieve unpleasant lines for most, while a percentage of slots should be reserved for walk ups.

DAY PARTS

The occupancy, energy, pacing, volume and storylines can be modulated throughout the day. Consider offering a quiet morning segment dedicated to the “Vulnerables”, lively weekend afternoons for “Frontline” families, or a more boisterous “Teflonic” hour at end of day.
OCCUPANCY BY CODE

Density is the key metric that will determine the comfort and safety of the visitor experience.

Occupancy codes for retail and museum spaces are typically set at a maximum of 30 square feet per person in public areas. Regional regulations are beginning to establish occupancy by phase at a percentage of occupancy code.

A range of technologies can be used to track and manage the actual occupancy of each space.

EXAMPLE USING A 3,000 S.F. SPACE
@100% 3,000 s.f. / 30 = 100 persons
@ 75% 3,000 s.f. / 45 = 66 persons
@ 50% 3,000 s.f. / 60 = 50 persons
@ 25% 3,000 s.f. / 120 = 25 persons
FLOW
Pathways provide a more structured flow-thru, with a rhythm of movement prompted by a range of techniques.

FLOW EFFICIENCY
The challenge of the New Normal will be to enable social distancing without causing discomfort. The objective will be to move fewer visitors through a more limited selection of memorable experiences.

LINEAR PATHS
Social distancing on a linear path will work in exhibits that are already configured along a deliberate pathway. The challenge is to keep the groups moving along at a similar pace.

OPEN ACCESS
Some spaces may not work in a linear sequence. More open spaces may suggest limited occupancy with free flow for a fixed amount of time.

DYNAMIC MANAGEMENT
RFID or computer vision technologies provide a comprehensive operational window on visitor movements and pinch points. Destinations can be promoted or throttled down throughout the day.

TRAFFIC CONTROL
A variety of human and automated technologies facilitates the start and completion of sequences through spaces, and in between spaces.
ENHANCED EXPERIENCES

The *New Normal* is an opportunity to surprise and delight visitors with refreshed and amplified exhibits that stimulate new forms of interaction and movement.

EXHIBIT AMPLIFICATION
An overlay of sound, light and multimedia projections can build upon exhibit themes while also drawing visitors through the space.

TOUCHLESS INTERACTION
Anything that invites touch will require frequent sanitizing throughout the day, if not after every interaction. This could be a time to close off high-touch exhibits, remove touchable interactives or retrofit them with gesture, voice, or other “natural” interactions.

NARRATIVE OVERLAYS
New layers of story and interaction designed for group interaction can add to traditional exhibit techniques.
PERFORMANCE
Regional performing artists are offered intimate stages to surprise visitors with complementary live performances as appropriate, gallery by gallery, with short vignettes that inspire while gently prompting movement.

ARTS COLLABORATIONS
Actors, singers, dancers, classical musicians, opera singers and many other artists will not be performing in their traditional venues or touring for quite some time. This is a moment to generously open museum spaces and invite unique multi-disciplinary collaborations.

SPACES IN BETWEEN
This new management system may be imperfect to start, involving extra wait time between destinations. Live engagement and unexpected programming can fill the gaps in open and common spaces.
VISITOR OPERATIONS
Integrated solutions for flow efficiency

EXPERIENCE

ONLINE
The New Operating System
Journeys & Pathways
Social Unit Pledge
Timed Reservations
Ticketing
Notifications/Schedule Updates

THE QUEUE
Line Planning
Space Planning
Bollards, Stanchions, Barriers
Traffic Lights
Rules of the Road Orientation
Line Engagement
Floor Graphics
Weather Protection

VISITOR RECEPTION
Individual Pledge
Touchless POS
Self-serve Ticket Dispensers
Ticket Distribution/ Kiosks
Badges, tickets, cards, wristbands
RFID Wristband or Badge
Visitor Information
Dimensional Signage

DIGITAL SIGNAGE
Digital Displays –
Wait Times, Wait List,
Journeys
Notifications
Delays & Updates
Design Templates
Interactives

RETAIL
Space planning
Fixture Spacing
Flow Design
Visual Merchandising
Limited touch
Touchless POS
Ship-to-Home

OPERATIONS

ONLINE DIGITAL
Visitor Information
CMS
CRM
Memberships
Mobile APP

VISITOR OPERATIONS
Flow Simulations
Dynamic Crowd Management
Crisis Management
Dynamic Pricing
Operations Dashboard
Mobile Notifications
Delays & Updates
RFID Dashboard

TICKETING & RESERVATIONS
Touchless POS
Dynamic Pricing
Self-serve Ticket Dispensers
Digital Displays –
Wait Times, Wait List, Journeys
Ticket Distribution
Personalized Offers

SHOW CONTROL
Digital Content Management
Dynamic Data–
Wait Times, Wait List,
Extended Hours
Journeys/Paths
Day Parts Management
Lighting & Effects
Design Templates

POS
Retail Sales
Ship-to-Home
Memberships
CRM
Every institution is trying to navigate financial challenges alongside vague regional guidelines that have not put cultural attractions high on their list of priorities. Texas has already opened museums, while other states have put them in Phase 4 alongside conventions and concerts. Museum directors in some states are actively negotiating and educating regional leaders on how museums may be among the safer places to invite visitors early on.

The risk for so may public venues, whether museums, restaurants, retail or sporting events is that in the rush to open safely, we devastate the quality of the experience. An excess of flimsy signs, intrusive health checks, poorly managed queues, roped off sections or staff barking orders could send visitors running home in horror over what happened to the beloved places in their community.

The concepts presented here represent ideas that may be too ambitious for opening day, but we offer them as inspiration for solutions that may be necessary as visitors return in search of something new.

Best of Health,

Tomas Ancona
Tomas Ancona

ta@ancona-a.com
T 503-274-4444
M 503-819-9120
www.ancona-a.com