RIT | College of Art and Design
Image Permanence Institute

Environmental Management During the Pandemic: Field Study Results

Introduction

In an effort to understand how changes in mechanical system operations in response to the COVID-19 pandemic impacted collections environments across institutions, IPI launched a field study through an online submission platform from October through November 2020. Nineteen questions sought to address the role of environmental management at institutions, document changes made to mechanical system operations in response to the pandemic, and collect observed impacts to collections environments resulting from the changes implemented. The results demonstrated a high level of successful implementation of sustainable operations among respondents, especially when coupled with a quality, cross-disciplinary environmental management program. We encourage all collecting institutions to examine their practices and consider ways in which they can work towards even greater success in achieving preservation and sustainability goals.

Field Study Distribution

The online field study was promoted through the American Institute of Conservation (AIC) Global Forum Distribution List, the American Alliance of Museums (AAM) Collections Stewardship listserv, Image Permanence Institute's quarterly newsletter and social media platforms, and at the Smithsonian Institution's 2020 Safety & Cultural Heritage Summit.

26 Respondents Working in

Museums
art
science
natural history

Libraries

Universities

Government Organizations

Human health and safety as top priority

Reduced occupancy led to

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Mechanical system shutdowns

Virus mitigation led to

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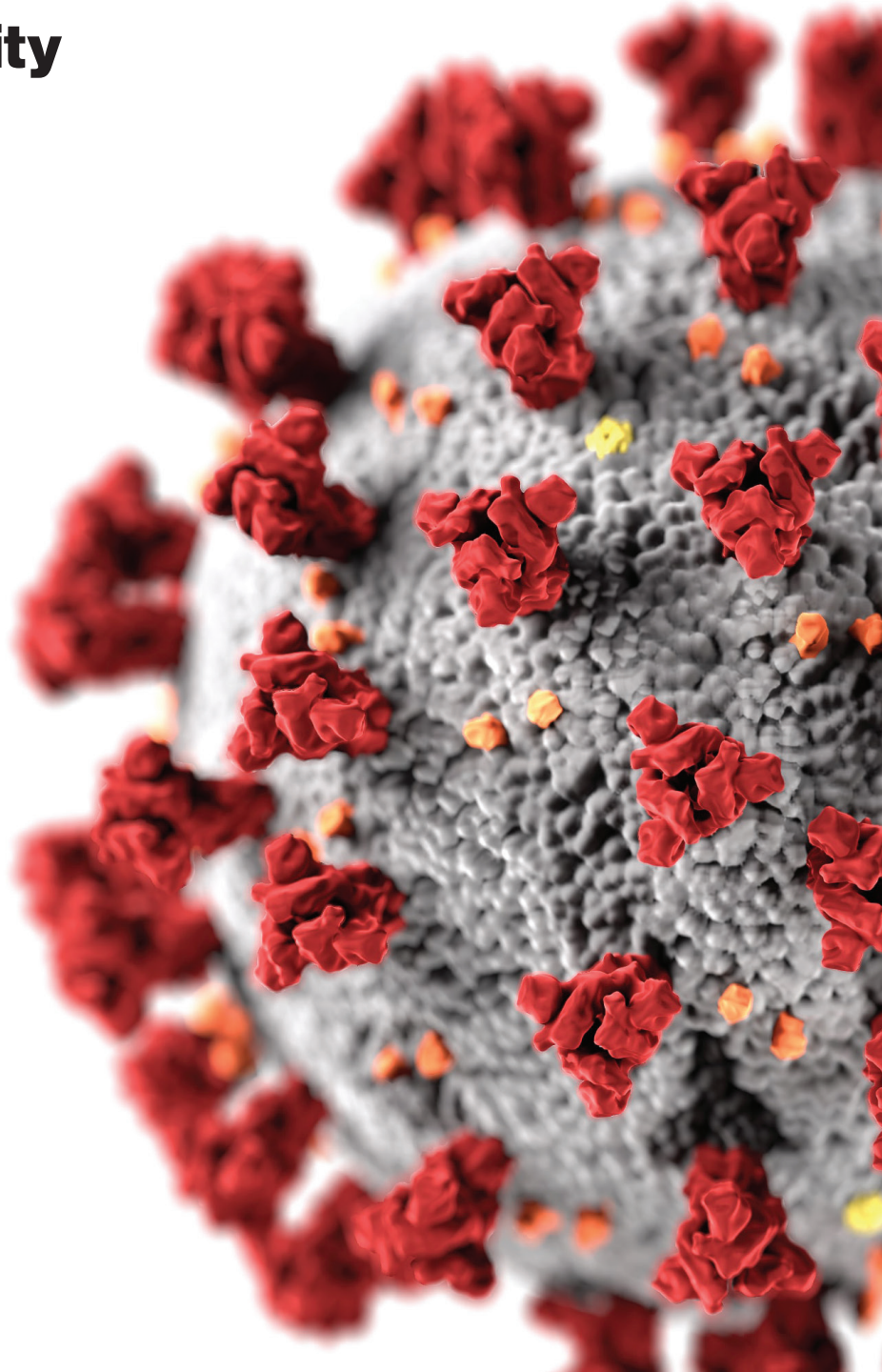
Increased ventilation

- More air exchanges
- More outside air
- Improved filtration



Comparing Energy-saving and COVID-19 Strategies

Mechanical System Component	Operation	Impact			
		Sustainability	COVID-19	Cost Savings	Preservation
System = on/off	System on				
	System off (shutdown)				
Air exchange rates	High				
	Low (fan speed adjustments)				
Outside air usage	Increased				
	Decreased				
Filtration	High (MERV 13 and up)				
	Low (MERV 12 and below)				

Goals of the Field Study

1. Address the role of environmental management at institutions

2. Document changes made to the mechanical system operation in response to the pandemic

3. Evaluate observed impacts to collections environments resulting from the changes implemented

Indicators of Shutdown Potential

70% of respondents successfully implemented mechanical system shutdowns

- Had a history of meeting environmental goals
- Had an existing plan for making changes to mechanical system operations

30% were unable to successfully implement mechanical system shutdowns

- Had a history of not meeting environmental goals
- Did not have an existing plan for making changes to mechanical system operations

Key Factors to Focus Efforts on

Active environmental management

- Data collection
- Experimentation
- Data analysis

Develop a plan for mechanical system operations

Long-term strategic planning

- Address concerns
- Meet current environmental goals

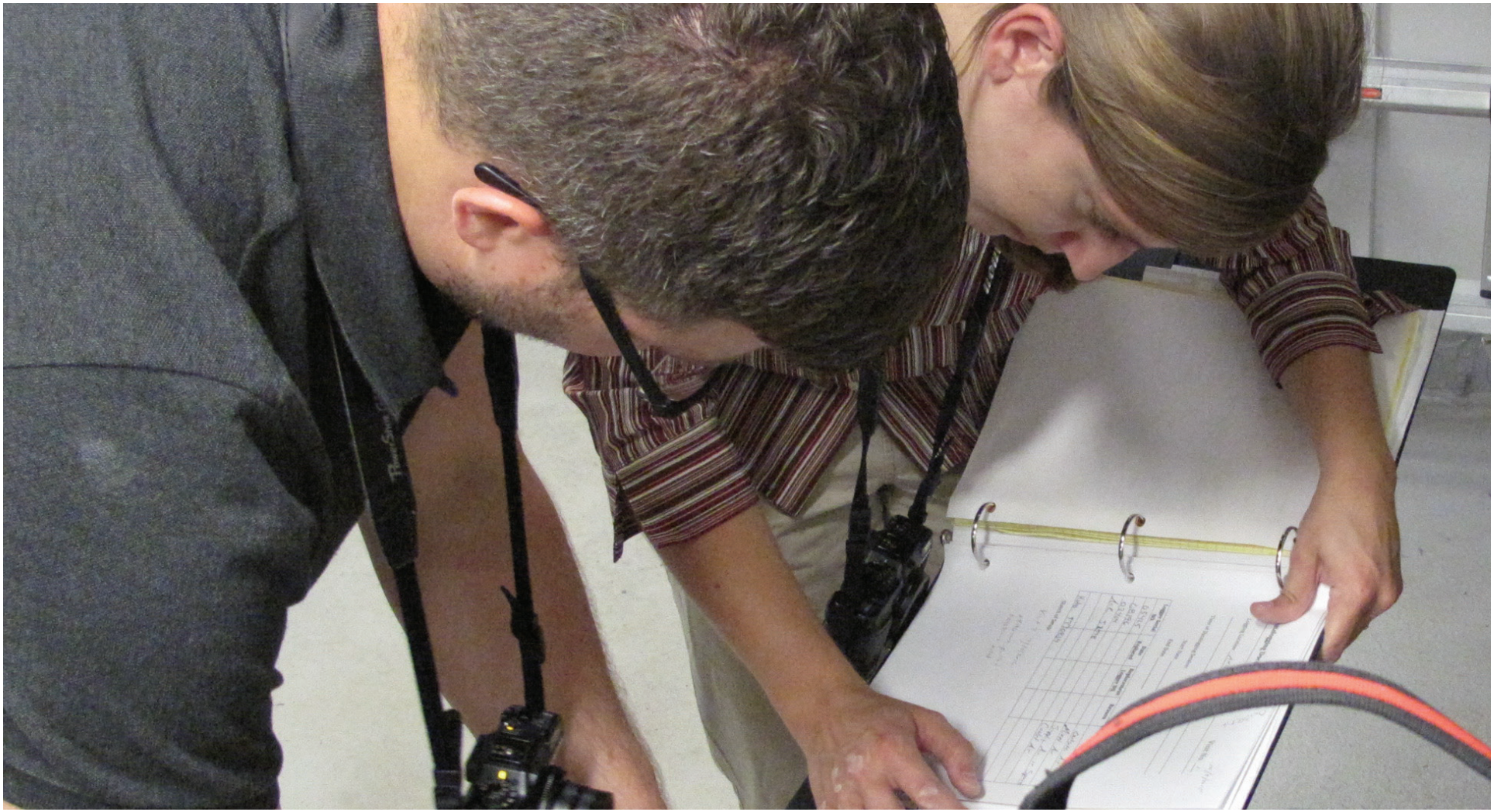
Support collaborative relationships

- Recognize demands on time
- Communicate clear goals

Photo credit: University of Kansas Libraries

Conclusion

Strong cross-disciplinary collaborative teams are better equipped in emergency situations, able to perform additional work on the mechanical systems to address concerns and implement a wider degree of changes to operation.



Acknowledgments

IPI would like to thank those who participated in the field study and who talked with us further about their experiences– your willingness to share has enriched our understanding. If you have any questions or comments on the field study, or would like to inquire about available resources to develop a sustainable environmental management program, please **contact Kelly M. Krish at kmkpph@rit.edu**. This work has been funded by the National Endowment for the Humanities as part of a larger education and training project.

NATIONAL ENDOWMENT FOR THE HUMANITIES