



Article Art Vandalism and Guardianship in US Art Institutions

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Abstract: Art crime scholars and art world professionals constantly grapple with determining the most effective methods by which to reduce and prevent victimization by art vandals. Despite the numerous accounts of this form of criminality, there is a dearth of empirical studies focused on the security and care of art collections. Using Routine Activities Theory to guide the research, the present study explores the relationship between social and physical guardianship practices and the prevalence of art vandalism using questionnaire data collected from 111 American art museums and art galleries. The results indicate an overwhelming lack of association between the majority of the guardianship measures and vandalism victimization, a pattern consistent with the possibility that social and physical guardianship practices are not implemented until after an act of vandalism has already occurred.

Keywords: art vandalism; guardianship; routine activities theory; art museums; art galleries

"Museums can cope with sex and death and politics, but not destruction."

Miranda Stearn

1. Introduction

During the evening of 8 February 2017 around 6 p.m., at the Visual Culture Research Center in Kiev, Ukraine, several artworks in the politically charged exhibit surrounding the Ukrainian 2014 Maiden Revolution were brutally attacked, along with a security guard. Two women and twelve masked men "hammered holes in the walls, stole four artworks and damaged others, threw brochures on the ground, and spray-painted on the walls such slogans and symbols as "Glory to Ukraine" and a trident—part of the country's coat of arms—shaped like a Celtic cross, which the center's website identifies as a neo-Nazi symbol. A security camera captured harrowing footage of the vandalism" (Steinhauer 2017). In just two minutes, the vandals inflicted \$5000.00 damage to the works and \$1500.00 damage to the facility. The vandals were never apprehended. The center remained open in its vandalized condition, however, in order to stimulate an intellectual discussion about preserving the right to free speech (Steinhauer 2017).

The motives for committing art vandalism, while similar in many ways to the motives behind other forms of vandalism, are unique in some ways. Some argue that art vandals are mentally unstable (Bazley 2010; Bessette 2016; Conklin 1994; Fine and Shatin 1985; Scott 2009; 2010). For example, in 1987, ex-soldier Robert Cambridge walked into the National Gallery in London, England with a sawed-off shotgun and shot Leonardo DaVinci's drawing, The Virgin and Child with St. Anne and St. John the Baptist (1499–1500). Cambridge "told the police his intent had been to show his disgust with 'political, social, and economic conditions in Britain.'" (Rule 1988). Despite Cambridge's explicit, concrete

explanation for his destructive acts, the authorities did not accept his motive as rational and he was committed to a psychiatric hospital (Conklin 1994).

Others argue that art vandals act out of envy (Cordess and Turcan 1993; Fuller 1987), in protest against sexual imagery (Bazley 2010), as a medium for conceptual or performance art (Bazley 2010; Brisman 2011; Conklin 1994; MacNamara 2013; Scott 2009), or simply destroy for destruction's sake (Scott 2009). Scott (2010, p. 22) holds that there are four underlying motivations for art vandalism: "political agitation, ego-centric publicity-seeking, religious convictions, and the belief that an exhibit does not constitute 'art'". Scott (2010, p. 36) also surmises, "By affording the question of motive greater consideration, a better understanding of the phenomenon and its context would be achieved, and this would truly empower the museum sector". In sum, if museums would consider the underlying reasons that art vandals perpetuate their crimes, then security practices and procedures could be designed more effectively.

Given the uniqueness of motive, art crime scholars and art world professionals constantly grapple with the most effective methods by which to reduce and prevent victimization by art vandals. Despite the numerous accounts of this form of criminality, there is a paucity of qualitative (MacNamara 2013; Scott 2009) and quantitative research (Benson 2013; Bessette 2016; Kerr 2015; MacNamara 2013; Scott 2009) surrounding art vandalism. More specifically, there is a dearth of empirical studies focused on the security and care of art collections (Bessette 2016; Benson 2013; Burmon 2017; Cordess and Turcan 1993; Dobovšek et al. 2010; Nordmarker et al. 2000; Scott 2009; 2010; Willemse and Etman 1995).

Museums and galleries store, safeguard, exhibit, and provide research opportunities for works of art and objects of cultural heritage; a role otherwise known as guardianship. According to Madero-Hernandez and Fisher (2013, p. 517), guardianship broadly "refers to the ability of persons or objects to successfully prevent crime". Despite the long-held notion that guardianship is a major responsibility of art institutions, they do not always succeed in its implementation and execution. Absent, flawed, or substandard protections can easily render art objects vulnerable to vandalism.

The concept of guardianship itself is a central component of Cohen and Felson (1979)'s Routine Activities Theory (RAT). Cohen and Felson (1979) posited that in order for crime to occur, three perpetually recurring factors must converge in time and space (a) motivated offenders; (b) a suitable target; and (c) the absence of a capable guardian or guardians (see also Conklin 1994).

Within the criminological literature, guardianship has been divided into two classifications: physical guardianship and social guardianship. Physical guardianship includes those security elements that would commonly be referred to as "target hardening", such as alarms, locks, special outside lighting (Madero-Hernandez and Fisher 2013; Miethe et al. 1991; Meithe and Meier 1990; Meithe and McDowall 1993; Rountree et al. 1994), and CCTV (Addington 2009; Burrow and Apel 2008; Breetzk and Cohn 2013; Johnson 1999). Social guardianship refers to the human element of crime prevention, such as having a neighbor watch your house while you are away (Fisher et al. 1998; Fisher and Wilkes 2003; Tseloni et al. 2004), household composition (Fisher et al. 2002; Outlaw et al. 2002; Miethe et al. 1991; Meithe and McDowall 1993; Rountree et al. 1994), and home occupancy (Garofalo and Clark 1992; Wilcox et al. 2007).

As the research on social guardianship evolved, the concept of the place manager became an integral aspect. Place managers are actors who discourage crime and reduce the potential for criminal activity by their mere presence and daily activities at specific places. These place managers are not guarding a potential target; rather, these actors are controlling activities at specified locations (Eck 1994; 1995; Felson 1995; Mazerolle et al. 1998). Within the art museum and art gallery context, a place manager might include museum/gallery security personnel, as well as non-security staff such as employees, volunteers, and even visitors. Indeed, consistent with informal social control, everyday citizens are often credited with successfully protecting museums' and galleries' at-risk treasures. As Vicki Oliveri (2014, p. 97) astutely proclaims, in the context of the gallery, the goodwill of the common citizenry is "just as vital to the life of a cultural institution as a good security system".

The present study explores the relationship between social and physical guardianship practices in American art museums and art galleries and the prevalence of art vandalism. Survey data are analyzed to explore whether the presence/absence of specific guardianship measures is associated with art vandalism victimization. The results indicate an overwhelming lack of association between the majority of the guardianship measures and vandalism victimization. The exceptions include an institution's due diligence with regard to inventorying works on view, the number of volunteer hours donated to an institution annually, and whether or not some of the pictures displayed are glazed. Overall, the results are consistent with the possibility that social and physical guardianship practices are not implemented until after an act of vandalism has already occurred.

2. Materials and Methods

This data from this study came from mailed surveys to U.S. art museums and galleries. The population for this study was identified in 2013 from The Official Museum Directory (n.d.) online database, which is regarded as the most comprehensive listing of U.S. art museums and galleries. Specific search parameters were utilized to narrow down the study population to the 4160 institutions that exhibit art (art museums and galleries; arts and crafts museums; china, glass, and silver museums; civic art and cultural centers; decorative arts museums; folk art museums; textile museums; and college and university museums). In order to make the study more manageable and the survey more affordable and in order to make the study more focused on fine art vandalism, every fifth institution that primarily exhibited "fine art" was sampled from the larger population. Following a review of each of the resulting 832 entries, 199 of the institutions had to be rejected due to replication in names, institutions that were no longer in existence, inclusion of contacts that were used as survey pre-testers or survey construction consultants, incorrect collection descriptions, or categorical error of institutional type.

A survey instrument was mailed to the remaining 633 art institutions, and a total of 111 (17.5%) respondents completed the questionnaire. It should be noted that after consulting with museum professionals, it was determined that a paper survey was preferable to an internet survey. Dillman et al. (2014) note that empirical studies support this claim. The questionnaire was composed of 149 questions covering the general characteristics of each institution, security topics, and vandalism and theft victimization. The analyses for the present study focus on the results pertaining to vandalism victimization. The survey was pre-tested by ten former and/or current museum directors. The sample was guaranteed anonymity if they chose to participate in this study. The study was approved by the University of Louisville's Institutional Review Board on 18 July 2013 (approval number 13.0341).

The dependent variable used for this study was a yes/no question about whether the museum/gallery had experienced art vandalism over the past five years (additional information was also collected regarding the actual number of incidences and the types of objects vandalized). The independent variables measured several theoretically driven forms of security measures and procedures, as well as measures of art institutions' characteristics. As noted in the introduction, the guardianship measures included both social and physical components. The social guardianship measures included variables regarding place manager presence (both non-security and security guards), place manager due diligence, and security guard duties. The physical guardianship measures included variables regarding the presence of target hardening devices and measures of institutions proactive physical guardianship efforts.

Routine Activities Theory argues that place managers have the potential to reduce and discourage crime merely by their presence and activities at specific places. Mazerolle et al. (1998) labeled the four levels of place management responsibility as: primary, secondary, tertiary, and quaternary. The types of place management responsibility which the researchers posited are delegated to the people who are employed to regulate behavior and are often assigned a crime prevention role, such as a beat officer, either directly or indirectly at particular places., For the purposes of this study these include

full-time and part-time employees, volunteers, and visitors in addition to full-time and part-time security guards.

The inclusion of visitors within the category of place managers is perhaps the most unusual. According to Anthony Amore, during his interview with Noah Charney (2009, p. 131), "Because museum visitors are so often vested with a love for the art that they have paid to look at, they are very likely to speak up if they think a person means to do harm to the collection. They therefore, become an unwitting security measure and a vital layer of security lending hundreds of sets of eyes and ears to what is going on in the museum". As Jackson (2016, p. 99) notes, however, "the more visitors in a building, the higher the chance of criminal behavior occurring". Nonetheless, visitors may be at least examined as potential place managers because at least some may be willing to report acts of vandalism in progress.

We also included two variables to measure the presence of security-specific place managers (though scholars such as Felson (2006) and Felson and Eckert (2016) have asserted that security guards are not guardians): the number of full-time security guards and the number of part-time security guards. The distinction between full-time and part-time was maintained because full-time guards may be perceived as preferable to part-time guards due to the job security and benefits that a full-time guard is afforded. In addition, full-time guards may be considered more effective guardians than part-time guards due to their increased hours of exposure to an institution's day-to-day functioning and collections. During a face-to-face conversation with the author on 12 November 2017, however, former Speed Art Museum director Peter Morrin noted that "many believe that in contrast to the tedium suffered by full-time guards, part-time guards may be more vigilant with fresher eyes".

We included three variables to measure non-security place manager activities within an art museum or gallery that either make them effective or ineffective guardians (Clarke and Bichler-Robertson 1998; Madensen and Eck 2008; Sampson et al. 2010). First, we asked respondents the frequency with which an institution's on-view collection is inventoried. Many times, works that have been vandalized are not known to be damaged until a significant time has passed since the vandalism, because the museum or gallery did not bother to check their collection of works on view. Second, we measured whether or not the art facilities conduct pre-hiring background checks on potential employees and third, whether or not art facilities do the same for potential volunteers. Inside jobs are the most common and account for 90% of all museum thefts, according to Anthony Amore, director of security at the Isabella Stewart Gardner Museum (Hickley and Copetas 2010).

We included three variables that pertain to art museum and art gallery security guards' daily functioning. First, we asked each institution to indicate the average square footage a guard patrols in his or her designated roving circuit. Second, we asked how many designated stationary posts or designed roving circuits exist at each respondent's museum or gallery. Third, we asked about the number of surveillance rounds performed at the respondent's museum or gallery within half hour intervals.

Routine Activities Theory argues that physical guardianship practices such as target hardening also have the potential to reduce and discourage crime. Admittedly, there is dissent among Routine Activities Theory scholars regarding the role target hardening devices play in physical guardianship. For example, Hollis et al. (2013, p. 74) declare that "targeting hardening activities do not increase the availability of capable guardians; they merely make it more difficult for the offender to complete the criminal act". Conversely, a compelling number of scholars categorized target hardening variables as measures of guardianship (Breetzk and Cohn 2013; Burmon 2017; Fisher and Wilkes 2003; Meithe and Meier 1990; Mustaine and Tewksbury 1998; Rountree et al. 1994; Schreck et al. 2003; Wilcox et al. 2007). In line with the above scholars, target hardening devices and mechanisms were included as measures of physical guardianship. Each respondent was asked whether or not their facility utilizes each of the following security devices or physical barriers: "door alarms", "window alarms", "motion detectors", "CCTV", "individual object alarms", "other type of security systems", "glazing on some pictures", "glazing on all pictures", "vitrines", "barriers in front of artworks, "ropes and stanchions", and "other type of physical barriers".

We also included three physical guardianship measures that address non-target hardening physical guardianship actions performed by security personnel. First, we asked about the extent to which a museum or gallery requires purse, bag, and package inspection at the time of entry and/or exit of the institution. Second, we asked about whether or not a museum or gallery requires that visitors leave their oversized bags or large items in a designated area before the visitor is permitted to enter the exhibition space. These preventative measures allow museums and galleries to hinder visitors from carrying and concealing larger objects when entering the gallery space and exiting the building, as well as preventing the oversized bag from accidently rubbing against a delicate sculpture or unglazed painting. Third, we asked whether staff and volunteers were required to wear ID badges so they would be identified as members of a museum or gallery's organization. These badges and ID's can act as a deterrent of theft and vandalism due to the apparent presence of an employee or volunteer.

Finally, we included four measures of demographic and institutional characteristics. Four measures are included within this group of variables: the population of the city in which the respondent's institution is located, the total number of volunteer hours a museum or gallery receives in one calendar year, the institution's annual operating budget (in dollars), and the size of the museum or gallery (in square feet).

In order to examine the associations between various measures of guardianship with incidences of art vandalism, we utilized both bivariate descriptive statistical analyses and multivariate binary logistic regression. For the bivariate descriptive analyses, responding museums were grouped according to whether or not they had experienced any incidences of art vandalism in the past five years. Comparisons of proportions and means were then used to identify possible differences between these two groups in terms of social guardianship, physical guardianship, and institutional characteristics. Multivariate binary logistic regression analysis was used to identify the group differences that could be considered statistically significant (full model results not reported here; see Salomon 2018). All analyses were conducted using SPSS.

3. Results

Of the 111 museums/galleries, 25 (22.5%) experienced at least one incidence of art vandalism (there was a total of 56 incidences reported, with a total of 58 objects intentionally damaged). As shown in Table 1, the mean population size for non-victimized museums/galleries (M = 365,771.70) was higher than for victimized museums/galleries (M = 221,836.65). This may have been because smaller areas have higher levels of informal social control compared to larger areas. Theoretically, "areas with lower levels of informal social control will have less effective guardians, and this will invite more potential offenders" (Tewksbury and Mustaine 2000, p. 99).

The victimized museums and galleries all had a higher average number of volunteer hours (M = 3592.17), operating budgets (\$2,383,568.09), and square footage of their respective institutions (234,564.33 sq. ft.) compared to the average number of volunteer hours (M = 1831.26), operating budgets (\$970,183.09), and square footage of their respective institutions (22,786.09 sq. ft.) of the non-victimized museums and galleries. According to one of the respondents in Scott (2009) study "Instances of vandalism are more common in larger/national institutions than in smaller/local institutions". Similarly, during a face-to-face conversation with the author on 1 March 2018, Peter Morrin, former Director of the Speed Art Museum, noted that larger institutions have a greater number of works, including those exhibited in a sculpture garden, and consequently have a greater chance of vandalism. The larger museums also attract not only "art lovers" as visitors, but also novice viewers. Larger institutions possess more works that may be desirable targets of victimization and a larger space may be more difficult to monitor by place mangers. It should be noted, however, that only the difference in average volunteer hours between the victimized and non-victimized museums/galleries was statistically significant in the multivariate binary logistic regression model, where higher numbers of volunteer hours were associated with higher odds of vandalism victimization (see Salomon 2018).

Interestingly, the results for the social guardianship measures indicated that the victimized museums/galleries had higher means (21.39 non-security employees, 78.63 volunteers, and

98,806.21 visitors) than the non-victimized museums/galleries (14.31 non-security employees, 53.42 volunteers, and 39,471.83 visitors). Similarly, the victimized museums/galleries employed a higher average number of full-time security guards (M = 3.52) and part-time security guards (M = 2.74) than did the non-victimized museums/galleries (M = 2.53 full-time guards and M = 2.17 part-time guards). The average amount of square footage of roving covered by security guards at the non-victimized museums/galleries (M = 3672.18 sq. ft.) was higher than for the victimized museums/galleries (M = 2585.71 sq. ft.). The number of designated security posts (M = 2.88) and the frequency that the surveillance rounds are made (M = 5.05 per half hour) at the victimized museums/galleries, however, were higher when compared to the non-victimized museums/galleries (M = 1.29 security posts and M = 2.37 rounds per half hour). These differences, however, were not significant in the multivariate binary logistic regression. As shown in Table 2, victimized museums/galleries tended to inventory their works on view at less frequent intervals. For example, 40.9% of victimized museums/galleries inventoried their works just once per year while only 20.3% of the non-victimized museums/galleries did. Conversely, 27.3% of the victimized museums/galleries inventoried their works daily while 35.4% of non-victimized museums did so. It should be noted that the differences in the frequency of inventorying works on view between the victimized and non-victimized museums/galleries was also statistically significant in the multivariate binary logistic regression model, where a higher frequency of inventorying was associated with lower odds of vandalism victimization (see Salomon 2018).

The association between vandalization victimization and pre-hiring background checks on potential employees/volunteers was, however, very weak. For example, 65.2% of victimized museums/galleries indicated they always conducted pre-hiring checks on employees while a slightly lower percentage (60.5%) of non-victimized museums/galleries did so. For volunteers, there were slightly larger differences, with 26.3% of victimized museums/galleries indicating they always conducted pre-hiring checks while only 12.3% of non-victimized museums/galleries did so. These differences were not significant in the multivariate binary logistic regression.

For the most part, victimized and non-victimized museums/galleries employed various forms of target hardening (measures of physical guardianship) at approximately the same frequencies. There was very little difference in the percentages of victimized and non-victimized museums/galleries that, respectively, used door alarms (84.0% vs. 84.9%), motion detectors (72.0% vs. 70.9%), CCTV (56.0% vs. 47.7%), individual object alarms (16.0% vs. 16.3%), glazing on all pictures (4.0% vs. 5.8%), vitrines (76.0% vs. 69.8%), or low lying barriers in front of artworks (37.5% vs. 37.2%). There were differences in the percentages of victimized and non-victimized museums/galleries that, respectively, used window alarms (56.0% vs. 39.5%), glazing on some pictures (68.0% vs. 47.7%), or ropes and stanchions (56.0% vs. 38.4%). The only difference shown to be statistically significant in the multivariate binary logistic regression model, however, was the difference in use of glazing for some pictures, which was associated with higher odds of vandalism victimization (see Salomon 2018).

Finally, the results showed only slight differences between victimized and non-victimized museums/galleries in terms of the percentage conducting bag and package inspections (16.0% vs. 9.3%), having some sort of policy requiring oversized bag storage (60.0% vs. 58.1%), or requiring ID badges for staff and volunteers (40.0% vs. 44.2%). These differences were not significant in the multivariate binary logistic regression.

Table 1. Descriptive statistics of museums/galleries that were victimized by art vandalism compared with museums/galleries that were not victimized by art
vandalism, continuous variables.

Continuous Variables	Vandalized (25 Museums/Galleries)				Not Vandalized (86 Museums/Galleries)		
Continuous vurtuoles		М	SD	N	М	SD	
Demographic Measures							
Population of institution's city	23	221,836.65 residents	364,513.55 residents	84	365,771.70 residents	908,632.23 residents	
* Number of volunteer hours	18	3592.17 h	5481.95 h	78	1831.26 h	2996.53 h	
Operating budget	22	\$2,383,568.09	\$4,796,672.68	76	\$970,183.09	\$2,918,894.47	
Square feet of museum/gallery	24	234,604.33 sq. ft.	930,900.63 sq. ft.	75	22,786.09 sq. ft.	48,241.48 sq. ft.	
Social Guardianship Measures							
Place Managers–Non-Security							
# of non-security employees	23	21.39	35.98	86	14.31	44.38	
# of volunteers	24	78.63	94.73	85	53.42	86.44	
# of visitors	24	98,806.21	249,904.91	83	39,471.83	141,286.04	
Place Managers–Security Guards							
# of full time security guards	25	3.52	9.47	86	2.53	18.34	
# of part-time security guards	23	2.74	4.19	86	2.17	5.69	
Security Guard Related Practices							
Square footage of roving	21	2585.71 sq. ft.	5566.80 sq. ft.	73	3672.18 sq. ft.	113,990.47 sq. ft.	
Number of designated security Posts	24	2.88	7.02	86	1.29	6.55	
How often surveillance rounds are made	22	5.05/half hour intervals	8.45/half hour intervals	86	2.37/half hour intervals	6.23/half hour interva	

Note: N = the number of museums/galleries. * Variables were significant at $p \le 0.05$ in the multivariate binary logistic regression model.

Categorical Variables		dalized ums/Galleries)	Not Vandalized (86 Museums/Galleries)		
3	N	%	N	%	
Social Guardianship Measures Place Manager Activities-Due Diligence					
* Inventory works on view					
Less than once a year	1	4.5%	0	0.0%	
Once a year	9	40.9%	16	20.3%	
Every 6 months	2	9.1%	2	2.5%	
Every 3 months	1	4.5%	6	7.6%	
Monthly	0	0.0%	13	16.5%	
Weekly/More frequently	3	13.6%	14	17.7%	
Daily	6	27.3%	28	35.4%	
Pre-hiring Background checks on potential employees					
Never	5	21.7%	16	19.8%	
Sometimes	2	8.7%	8	9.9%	
Most of the time	1	4.3%	8	9.9%	
Always	15	65.2%	49	60.5%	
Pre-hiring Background checks on potential volunteers					
Never	11	57.9%	49	60.5%	
Sometimes	2	10.5%	15	18.5%	
Most of the time	1	5.3%	7	8.6%	
Always	5	26.3%	10	12.3%	
Physical Guardianship Measures Target Hardening Devices & Mechanisms					
Door alarms					
Yes	21	84.0%	73	84.9%	
No	4	16.0%	13	15.1%	
Window alarms					
Yes	14	56.0%	34	39.5%	
No	11	44.0%	52	60.5%	
		110/0		001070	
Motion detectors	10	72.09/	(1	70.09/	
Yes	18	72.0%	61 25	70.9%	
No	7	28.00%	25	29.1%	
CCTV					
Yes	14	56.0%	41	47.70%	
No	11	44.0%	45	52.3%	
Individual object alarms					
Yes	4	16.0%	14	16.3%	
No	21	84.0%	72	83.7%	
* Glazing on some pictures					
Yes	17	68.0%	41	47.7%	
No	8	32.00%	45	52.3%	
Glazing on all pictures					
Yes	1	4.0%	5	5.80%	
No	24	96.0%	81	94.2%	
Vitrines					
Yes	19	76.0%	60	69.8%	
No	6	24.0%	26	30.2%	
	Ű			20.270	
	9	37.5%	32	37.2%	
, 0		01.5 /0	52		
Yes		62.5%	54	62.8%	
Yes No	15	62.5%	54	62.8%	
		62.5% 56.0%	54 33	62.8%	

Table 2. Descriptive statistics of museums/galleries that were victimized by art vandalism comparedwith museums/galleries that were not victimized by art vandalism, categorical variables.

Categorical Variables		dalized ums/Galleries)	Not Vandalized (86 Museums/Galleries)		
U U	N	%	Ν	%	
Other type of security systems					
Yes	2	8.0%	7	8.1%	
No	23	92.0%	79	91.9%	
Other type of physical barriers					
Yes	2	8.0%	9	10.5%	
No	23	92.0%	77	89.5%	
Preventative Physical Guardianship Actions					
Bag/package inspections					
Conducted	4	16.0%	8	9.3%	
Not conducted	21	84.0%	78	90.7%	
Oversized bag storage					
Other than yes	15	60.0%	50	58.1%	
No	10	40.0%	36	41.9%	
ID badges required for staff and volunteers					
ID Badges required	10	40.0%	38	44.2%	
No ID badges required	15	60.0%	48	55.8%	

Table 2. Cont.

Note: * Variables were significant at $p \le 0.05$ in the multivariate binary logistic regression model.

4. Limitations

Before discussing these results in greater detail, it is important to note that the low response rate to the survey (17.5%) limits the degree to which the results can be generalized to the entire population of museums and galleries. This low response rate was somewhat expected though, as Hagan (2006, p. 162) reports that for mail-in surveys nonresponse is a common issue and that a 20% response rate is "fortunate" for a "one-time-only survey" distributed without sponsorship. Additionally, Friedrichs (2007) notes that a profound challenge associated with conducting research utilizing corporate entities as respondents is acquiring access and gaining the trust of the institution in order to garner information.

The low response rate also makes sense given that non-disclosure is an added barrier when asking about security practices. For example, a Director of Security from a prominent American Museum respectfully informed the researchers that it was not their policy to answer surveys or any questions regarding their security practices (previous researchers of museums have reported similar experiences; see Scott 2009; Cordess and Turcan 1993). In fact, the International Committee of Museums (ICOM) holds in their 2017 Code of Ethics for Museums, that "Information about the security of the museum or of private collections and locations visited during official duties must be held in strict confidence by museum personnel".¹ This international directed standard of practice offers insights into the industry wide issue of opaqueness with regard to security measures implemented within art institutions.

Response rates may also have been dampened because the survey instrument was perceived by some respondents as more appropriate for an art museum audience rather than for respondents from a commercial or non-profit art gallery. According to respondent #41, "This questionnaire is really designed for museums that are self-contained, physically and financially. University art galleries and museums are tied up carefully with academic bureaucracy and enmeshed with university safety and environmental systems and financial security". Respondent #51 concurred by stating, "These questions do not relate to a privately-owned art gallery—more for large museums".

As an exploratory study, however, the results can still provide valuable insight. At a bare minimum, the results of the present study can provide a benchmark to start thinking more

¹ International Council of Museums. "ICOM Code of Ethics for Museums." Paris, France: ICOM, 2017. http://icom.museum/ fileadmin/user_upload/pdf/Codes/ICOM-code-En-web.pdf (accessed on 15 January 2018).

systematically about social/physical guardianship measures and their effect on art vandalism. The goal of an exploratory study, according to Babbie (2004, p. 89), is to "hint at the answers and can suggest which research methods could provide definitive answers". Furthermore, these forms of investigation are "essential whenever a researcher is breaking new ground, and they almost always yield new insights into a topic for research" (Ibid., p. 89).

5. Discussion

Within this analysis, an initial picture comparing and contrasting our sample as guardians within the context of art vandalism victimization is presented. This analysis was performed for primarily exploratory purposes only to examine any potential theoretical trends that may or may not indicate the success of further quantitative tests of the guardianship component of Routine Activities Theory for the current researchers and future scholars. Additionally, this analytical format allows the art industry professionals to examine the sample within simple comparative configurations that allows for more insightful results than a purely non-comparative descriptive statistical report provides.

The findings related to the presence of various types of place managers were often counterintuitive. The strongest finding (statistically speaking) was intuitive however; museums/galleries that were victimized by vandals had a higher average number of volunteer hours than those that were not victimized. Within art institutions, "security is everybody's business" (Johnston and Shearing 2003, p. 16), even for volunteers who are not permanently ensconced as an institution's shareholder. In the course of Kerr (2013, p. 107)'s investigation, however, Head of Security #3 noted that "at his mid-sized, independent museum, they do not employ full-time room stewards because of the expense. Instead, there are 140 volunteers, and this can make it a struggle to convey security messages to them". Therefore, higher numbers of volunteer hours might suggest a substitution of volunteers for other types of place managers that would be more effective at discouraging vandalism.

The results otherwise showed that there were no statistically significant differences related to place managers between museums/galleries that were victimized and those that were not. With respect to number of visitors, the lack of a difference makes some sense. As noted earlier in this paper, some visitors are potential guardians of art while other visitors are art vandals. One would have expected a higher number of security guards among museums/galleries that were not victimized. While no statistical difference was formally found, the results showed the potential that a higher number of security guards actually existed at the victimized museums/galleries. This could be attributed to several factors. First, the presence of guards does not automatically guarantee that they will be effective. Guards are often underpaid and consequently have low morale and high turnover. Guards who have been employees for an extended period may be better guardians due to a knowledge of an institutions' policies, procedures, and collections. Guards also may become lackadaisical, however, and not be quite as vigilant. Dobovšek et al. (2010, p. 91) found that "trends suggest a prevalent passivity" that indicates "ineffectuality on the part of the guards in general".

While not statistically significant, the results also suggested that victimized museums/galleries had a number of designated security posts and more frequent surveillance rounds. One way to interpret these findings is to argue that the ability of a museum/gallery to afford a more robust security operation was offset by the fact that they could also afford a larger (and hence more vulnerable) museum space. While larger institutions may be able to afford more roving security guards, these roving security guards have more space to cover within their roving circuits. Moreover, art vandalism is an act of criminality which frequently occurs very quickly and requires a security guard or another place manager to be vigilant in their observation of visitors. Another possible explanation for why victimized museums/galleries had more security staff, security posts, and frequent surveillance is that these measures were a response after an incidence of victimization had already occurred.

These results may not be entirely unusual, however, as a similar pattern has been found among studies of the effect of school resource officer (SRO) programs in K-12 schools nationwide. The presence of security guards and sworn police officers as SROs either increased victimization within the K-12 school

setting (Burrow and Apel 2008; Na and Gottfredson 2011; Swartz et al. 2016; Tillyer et al. 2011) or were found to neither increase nor decrease victimization (Brown 2006; Schreck et al. 2003).

The findings related to various due diligence activities were also often counterintuitive. The strongest finding (statistically speaking) was intuitive though: the museums/galleries that were not victimized by art vandalism inventoried their works on view more frequently than the museums/galleries that were victimized.

While there were effectively no differences in terms of how often background checks were conducted on potential employees, the findings suggested that victimized museums/galleries were more likely to conduct background checks on potential volunteers (although the differences with respect to volunteers was also not statistically significant). The lack of background checks on anyone with special access to an institution's collection or borrowed works is risky, so the larger absence of background checks for volunteers for non-victimized museums/galleries is surprising. Many galleries and museums have many more volunteers than paid staff with access to their works (this is also true for the present study as the average number of security and non-security staff was 25.73 while the average number of volunteers was 58.97). Consequently, by sheer numerical odds, it is more likely that a volunteer would perpetrate an act of vandalism.

The finding that non-victimized museums/galleries more often did not conduct background checks might be because volunteers have already been vetted informally. Many volunteers are students and/or persons already personally known to museum/gallery staff, which would lead to an institution foregoing any background investigations. As with the findings on security staff however, another possible explanation for why victimized museums/galleries had a slightly higher use of background checks for volunteers may be that this was a response after an incidence of victimization had already occurred.

As was the case with the numbers of place managers and due diligence activities, the museums/galleries victimized by art vandalism often used target hardening measures as much or more than non-victimized museums/galleries. The only exceptions to this pattern were for the use of door alarms, individual object alarms, and the use of glazing on all pictures (although none of these differences was statistically significant). Victimized museums/galleries were more likely to use window alarms, motion detectors, CCTV, glazing on some (but not all) of their pictures, vitrines, low-lying barriers, and ropes and stanchions. Only one of these differences, however, was statistically significant (glazing on some pictures).

Surprisingly, the lack of significant differences aligns with previous findings regarding target hardening devices from other tests of Routine Activities Theory. In a large number of studies, target hardening measures were not determined to be significant (Burrow and Apel 2008; Hope 2009; Schreck et al. 2003; Mustaine and Tewksbury 2002; Tewksbury and Mustaine 2001; Tewksbury and Mustaine 2000; Zhang et al. 2007). Furthermore, some scholars reported that target hardening increased victimization (e.g., living in a gated community; see Breetzk and Cohn 2013). Prior studies emphasized that target hardening by itself is unlikely to be effective unless coupled with active monitoring by security personnel or police (Gill and Spriggs 2005; Welsh and Farrington 2009; Winge and Knutson 2003). Some previous research (conducted on college campuses), however, has shown that target hardening (Meithe and Meier 1990; Meithe and McDowall 1993; Mustaine and Tewksbury 1998) can reduce victimization.

The lack of significant differences and the higher utilization rates for most forms of target hardening by victimized museums/galleries once again points to the possibility that these measures are largely taken in response to an incidence of vandalism rather than as preventative measures. Steven Layne, CPP, CIPM (Layne 2009, p. 139) notes, "museums take surprisingly few preventative measures until after the fact. That is closing the barn after the horses are gone—throwing up a few cameras, changing the locks, and adding a few alarms all Band-Aids on a gaping wound". Similarly, Mustaine and Tewksbury (1999) maintained that the presence of the protective measures were responses of victimization rather than precursory guardianship actions. Lastly, according to

Suggested Practices for Museum Security As Adopted by The Museum, Library, and Cultural Properties council SIS International AND The Museum Association Security Committee of the American Association of Museums, there is a "tendency of museums to avoid sound security procedures because of their lack of popularity with staff or their impact on the operational status quo, as a serious problem to be avoided".²

Bag and package inspection is a common practice in airports, sports stadiums, and even at small concert venues. Museums such as the Museum of Fine Arts, Boston, the Smithsonian's Hirschhorn Museum, and the Museum of Modern Art, have adopted bag inspection as part of their standard guardianship procedures. This study found that these inspections are not performed on a consistent basis and that a higher percentage of the victimized museums/galleries conducted bag/package inspections and required oversized bag storage. A higher percentage of the non-victimized museums/galleries, however, required their employees and volunteers to wear ID badges. None of these differences was statistically significant though.

In terms of overall results, much of the studies' findings indicate a lack of significant differences for the forms of social and physical guardianship suggested by Routine Activities Theory. While observations over time were not available, we have already suggested the possibility that much of this is driven as a reaction to vandalism rather than as a proactive strategy. Other conclusions are possible though. Willemse and Etman (1995, p. 59) argued that "museums with a lot of attention to security care may, for instance, register incidences more carefully, as a result of which it will notice and report more incidences". Therefore, the results might (at least in part) reflect differences in a willingness to transparently report vandalization victimization. It is possible that some museums/galleries who reported they had not been victimized had in fact been. Their relative lack of social and physical guardianship, when coupled with a lack of transparency, could have skewed the findings.

It is also possible that some of the results may be affected by inconsistent adherence to established security policies and protocols. For example, according to the *Suggested Practices for Museum Security As Adopted by The Museum, Library, and Cultural Properties council SIS International AND The Museum Association Security Committee of the American Association of Museums,* "The Council has identified the tendency of museums to make exceptions to the security rules for trustees, volunteers, VIP's, donors, key staff, board members, members of affiliated groups, and others as a primary reason for the breakdown of security operational procedures and discipline".³

Finally, the findings may have been the result of the difficulty of stopping vandalism itself. According to a respondent in (Scott 2009, Figure 39b)) study on vandalism, "Lack of resources is irrelevant, if an attacker is determined, greater resources will not prevent them from striking". Since some acts of vandalism occur with smaller objects such as an ink pen, bubble gum, a knife, or a small tube of paint, these objects can be brought into the exhibition spaces without the need for a bag in which to hold these weapons. Therefore, it may be that all forms of social and physical guardianship are ultimately fallible.

We close this paper by advocating for four "next steps" to address vandalism victimization of art museums and galleries, on research-focused and one practice-focused. First, we strongly advocate the collection of longitudinal data using many of the same variables employed in the present study. One of the major difficulties for the present study was the inability to tell if the various social and physical guardianship practices were in place before vandalism victimization took place or were put in place only after the fact. Constructing pre-victimization and post-victimization questionnaires,

² The Museum, Library and Cultural Properties Council of ASIS International, and The Museum Association Security Committee of the American Association of Museums. "Suggested Practices for Museum Security" last modified June 2008. http://www.architectssecuritygroup.com/Consulting/WelcomeContractor_files/SuggestedPracticesforMuseumSecurity.pdf (accessed on 15 January 2018).

³ The Museum, Library and Cultural Properties Council of ASIS International, and The Museum Association Security Committee of the American Association of Museums. "Suggested Practices for Museum Security" last modified June 2008. http://www.architectssecuritygroup.com/Consulting/WelcomeContractor_files/SuggestedPracticesforMuseumSecurity.pdf (accessed on 15 January 2018).

rather than using one retrospective questionnaire, would help to disentangle the causal order of events. Second, we cannot assume that the dynamics of art vandalism operate internationally the same way as they do in the U.S. Therefore, scholars should conduct comparative studies in other countries that can be contrasted with the findings of this study. Third, building upon Scott (2009)'s suggestion that art institutions should incorporate art vandal's motives into the development of security practices, we

recommend that an analysis of art vandals' self-stated justifications be conducted (see Gamboni 2007). Fourth, in terms of art museum and gallery management, we advocate for engaging both the art and residential communities in the fight against art crime. Art can be perceived as exclusively for the privileged, upper class and thus these crimes do not warrant much sympathy. In fact, according to Clarke and Szydl (2017, pp. 1–2), not only does law enforcement view art crime as low on the hierarchy of criminal offenses, so does the public. Specifically, "Generally, people erroneously believe that art crimes and cultural crimes do not actually damage anyone in a direct way".

Yet, guardianship studies have found that one of the strongest measures in reducing crime is the public's involvement in looking out for each other's property (Fisher et al. 1998), the existence of Neighborhood Crime Watch organizations (Bennett et al. 2006; Tilley and Webb 1994), and when residents are active guardians rather than passive observers (Reynald 2009, 2010). Edmund Capon, former director of the Art Gallery of New South Wales, echoed a similar sentiment within the art world context by stating "the public's goodwill is our greatest insurance and it's one of our greatest assets" He further declared, "The public's 'goodwill' is just as vital to life of a cultural institution as a good security system (Oliveri 2014, p. 97)".

It is suggested that community art engagement activities, free art education seminars in art museums and at public education facilities, and seminars with topics on art vandalism and art theft may foster this type of protective community by enhancing positive attitudes and knowledge of art. Plus, if participants in these activities begin visiting art institutions either for the first time and/or more frequently, then the potential for additional place managers at the quaternary level increases. Furthermore, Clarke and Szydl (2017) posit that engaged visitors can speak on behalf of the community regarding the need for further protections of the works on display. A multitude of voices from community stakeholders has the ability to advocate for security policy changes to safeguard art. Thus, people can become a catalyst of change in addition to their role as guardians within the walls of the museums and galleries.

In closing and in support of crime prevention cohesion, Colonel Giovannie Pastore (Pastore 2009, p. 120) of the Italian Carabienieri strongly vocalized, "I firmly believe that the battle against art crime will be either won or lost together".

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