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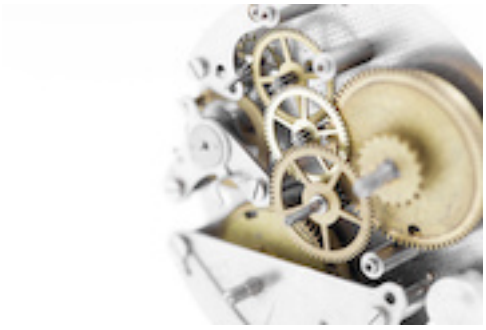
PHYSICAL SECURITY vs. OPERATIONAL SECURITY
Can there be one without the other?

Throughout my practice of architecture over the past three decades, I have been involved in the design and development of a myriad of project types including commercial, educational, governmental, medical, and residential – just to mention a few. Although the practice of architecture involves the design and creation of the physical built-environment, successful architecture requires complete consideration, understanding, and implementation of function – i.e., how exactly will the project be used by the occupants.

Within the architectural profession, creating a successful design for a project having extensive and complicated functions has been likened to the building of a watch. A watch contains many moving parts requiring precise positioning to perform accurately. Although watches may come in many styles and forms, precise function of the watch is a must. The design and creation of a building requires the same approach and attention to detail if the building is expected to perform as intended,



and as required.

From a layperson's perspective, architecture is commonly perceived with a focus of just the physical characteristics of a building with very little thought and consideration given to the function of a building. Very few outside of the architectural profession understand that the intended function or operations of a building routinely impacts how a building is designed physically, at least in regard to a building's overall form. A commonly known axiom within the architectural industry is "*Form follows function*." This phrase was coined by architect Louis Sullivan in 1896 in his writing "*The Tall Office Building Artistically Considered*."

About the Firm

Logan Security & Investigation Services is a professional security and forensic investigation consulting firm focused on making the built-environment more secure and safer for its users. Having specialized knowledge and experience in environmental criminology, Crime Prevention Through Environmental Design, physical and operational security, architecture, and construction, LSIS has a unique understanding and appreciation for how the built-environment contributes to the occurrences of criminal behavior and critical incidents.

Contact Information

If you or your business is interested in learning more about Physical Security and Operational Security Assessments, contact us directly. LSIS can help.

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"It is the pervading law of all things organic and inorganic, of all things physical and metaphysical, of all things human and all things superhuman, of all true manifestations of the head, of the heart, of the soul, that the life is recognizable in its expression, **that form ever follows function**. This is the law."

(Sullivan, 1896)

Thinking Points:

1. Has your business, school, or church had a complete security assessment performed for both physical and operational security measures?

2. Does your security management plan incorporate a controlled maintenance plan?

3. Do your day-to-day operations create vulnerabilities in your physical security systems?

4. Does your business, school, or church have a standard reporting system when identifying physical conditions requiring maintenance?

"Physical security can be generally described as the implementation of physical controls and barriers to protect a premises, building, facility, or other asset, along with the use of layers of physical protective measures to prevent illegitimate access, harm, or destruction."

(Fennelly, 2004)

Specifically, Sullivan wrote:

"*It is the pervading law of all things organic and inorganic, of all things physical and metaphysical, of all things human and all things superhuman, of all true manifestations of the head, of the heart, of the soul, that the life is recognizable in its expression,* ***that form ever follows function****. This is the law.*"

(Sullivan, 1896)

Although Sullivan's axiom has been widely misunderstood and debated over the years, it is evident and recognized there exists an undeniable synergy of form and function.

Sullivan's phrase further evolved through one of Sullivan's own proteges, Frank Lloyd Wright. Wright posited that "*Form and function are one*," intimating that one does not exist without the other. One is not simply dependent on the other. One is not simply a resultant of the other. Each is an integral part of the other forming a necessary union. It is this approach that serves as the basis to creating successful architecture. One without the other is not architecture but is simply a box without a soul.

Physical Security vs. Operational Security

Much like the longtime debate over the true meaning of Sullivan's axiom "*Form follows function*," there have been similar debates over the connection – or lack thereof, between physical and operational security measures. Physical security, for the purposes of this writing, can be generally described as the implementation of physical controls and barriers to protect a premises, building, facility, or other asset, along with the use of layers of physical protective measures to prevent illegitimate access, harm, or destruction. (Fennelly, 2004) Physical security measures might include elements such as signage and wayfinding, site perimeter fencing, door locks, lighting, alarms, and access and lockout controls – just to mention a few. Closed-circuit television (CCTV) systems are also most often perceived to be a component of a physical security system.

The term Operational Security or OPSEC, having a military origin, has historically been known to be associated with a risk management process regarding operations and procedures for protecting sensitive information. For the purposes of this writing however, operational security relates to the "human factor" within buildings and facilities and how the human factor either contributes to enhancing the security levels of protection or creates vulnerabilities, placing the occupants of a building or facility at risk of attack. In this regard, operational security measures might include security guard forces, School Resource Officers, capable guardians, maintenance activities, policies, and procedures. Additionally, operational security must consider how a building or facility functions, specifically how the occupants use the building or facility and how such use either contributes to enhancing the security levels of protection or creates vulnerabilities in the physical

security protective systems.

Although there is a clear distinction – with some exception, between what constitutes physical security and what constitutes operational security, it is not always clear, and is at times debated, that physical and operational security measures must be assessed and addressed together, with a synergistic approach. I recall interviewing with a potential client years ago to perform a security assessment on an educational campus containing numerous buildings. Upon completion of my explanation regarding my assessment approach, it ultimately became clear that the potential client was not interested in having an assessment performed at an operational level but was only interested in having a limited physical security assessment performed, primarily focusing only on CCTV and access control systems. Needless to say, I was not offered the assignment. I was fine with that decision as it was my opinion that performing such a limited assessment would have been the architectural equivalent to designing a building and being asked by the client to knowingly violate the applicable building code. Such an approach would have been a setup for failure, and potential disaster.

Much like Frank Lloyd Wright's opinion that "*Form and function are one*," it is my professional opinion that physical (i.e., form) and operational (i.e., function) security are one. One without the other does not provide the security levels of protection as intended. One without the other results in maintaining vulnerabilities that have not been addressed. For example, although having locks on the exterior doors of a building provides for a certain level of protection at a physical security level, such locks serve no useful purpose when typical day-to-day operations allow for the doors to be propped in an open position or when the door hardware is not properly maintained preventing the door from properly closing, latching, and locking. Although this seems to be common sense, in my experience, many businesses, organizations, and schools do not even realize such conditions (vulnerabilities) exist as there are no established policies and procedures or other measures to ensure that such conditions are identified and corrected in a timely fashion. In this regard, consider the recent events occurring at the Robb Elementary School in Uvalde, Texas. According to recent reports, one of the teachers observed the shooter approaching the school then manually closed one of the doors. Reportedly, the door failed to lock, allowing the shooter to enter the school. (Zahn, 2022) Assuming this is true, the physical and operational security layers failed to work in a synergistic manner. First, why was an exterior door open requiring it to be closed manually? Was it propped open for ventilation purposes? Did the automatic-closer not function properly and required maintenance? Were there no policies and procedures in-place regarding controlled maintenance activities to ensure that all door hardware was always functioning properly? Regardless of the answers to these questions, the available evidence – as reported, clearly indicates a breakdown between the physical and operational layers of security.

One other example involves the use of CCTV systems. CCTV systems are commonly perceived as a physical security

measure having an intent to deter illegitimate and criminal activity and to record such activity when it does occur so that the recorded video can be reviewed after the fact during the investigation process. Many within the security industry believe these are the only uses for CCTV systems and that CCTV systems serve no useful purpose in defending against an active assailant attack, such as an active shooter. I disagree. When proper physical accommodations are in-place and when proper policies and procedures have been established, a CCTV system can be a vital tool in defending against an active shooter attack. When properly planned and coordinated, such systems can assist in providing real-time accurate information to law enforcement during the response phase, specifically in regard to the shooter's location and description. Such use can save valuable time, and lives. In my experience, through actual interviews of law enforcement officers and through independent research, all too often officers do not have accurate information regarding the shooter's location or description, or even the number of shooters when having to enter an active shooter site. Accordingly, a CCTV system – along with properly planned and established policies and procedures, has a rightful place in an integrated protective system.

Conclusion

The concepts and methodologies used in the practice of architecture and in the development of a comprehensive integrated protective security system are very similar, if not exactly the same. Successful architecture requires architects to acknowledge form and function as a union that cannot be separated. As stated by Frank Lloyd Wright, "*Form and function are one*." Wright's words ring true not only for architecture but for security as well. Successful security requires that physical security and operational security be assessed and addressed with a synergistic approach. One without the other not only results in unidentified vulnerabilities but also creates vulnerabilities placing the occupants of a building or facility at risk.

When sitting for the 12-hour design portion of the Architect Registration Examination decades ago, the commonly known approach was to "*make it a box and give it a soul*." Generally, this approach was to focus on the functional requirements set forth in the examination program without giving much thought to the form or aesthetic characteristics of the design. Although this approach may be appropriate under such circumstances when having to prepare a design and drawings for a building in 12 hours or less, such an approach does not apply in real-world application for creating successful architecture.

Such an approach is also not appropriate in performing security assessments with the intent to increase a building's security levels of protection to defend against an active assailant, such as an active shooter. Successful security assessments must address both physical and operational security measures. One without the other is simply a box without a soul.

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About the Author

Paul W. Logan is a Physical Security Professional, a Professional Certified Investigator, a Certified CPTED Practitioner, a Certified Forensic Interviewer, and a Licensed Architect. Mr. Logan specializes in environmental criminology, Crime Prevention Through Environmental Design, physical and operational security, and forensic investigations. Mr. Logan provides a variety of security and forensic investigation consulting services and is routinely retained as a subject matter expert for security related matters including active shooter incidents.

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