

# Architectural Form and Meaning: Analyzing Perceptual Cues of Power in the Design of Provincial Capitol Buildings in Mindanao, Southern Philippines

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## Abstract

This study explored how tangible architectural objects represent the abstract concept of power. A semiological approach to form analysis was developed to speculate how this translation process happens between the signifier (architectural object) and signified (power). Eighteen buildings located in the provinces of Mindanao, Southern Philippines, were chosen as samples of institutions mediating power from the national government to the local government units. Aided by computer software, the data gathered on-site were drafted and translated into two-dimensional drawings. The drafted building forms were then analyzed through a five-phase semiological approach (i.e., object identification, visual sensation, form perception, meaning mediation, and meaning endowment). A survey was also conducted and given to 120 randomly selected residents from the study areas to gather and explore their perceptions on the social, historical, cultural, emotional, physical, conceptual, and behavioral influence of the provincial buildings. The results show how certain architectural components (e.g., columns, roof, and ceiling) create visual qualities (e.g., symmetry, axis, scale) and gestalt properties that coincide with the physical dimensions of power (e.g., dominance, stability, authenticity). At the conceptual level, at least three collective meanings of power were attributed by the public to the provincial buildings, including the nature of power (e.g., service, leadership, oppression), the function of power (e.g., social center, point of services), and metaphor for social identity (e.g., equality among citizens, “our province”).

**Keywords:** architecture • power • semiology • sign • symbol • visual quality

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**Author Contribution:** NLNP, MIPS: conceptualization, data curation, visualization; NLNP: formal analysis, methodology, presentation of the published work, final draft review and editing, validation, supervision; MIPS: investigation, original draft preparation

**Editors in Charge:** Prof. Gerard Rey Lico, PhD, University of the Philippines Diliman  
Prof. Raymundo R. Pavo, PhD, University of the Philippines Mindanao

**Received:** 3 February 2020

**Accepted:** 24 July 2020

**Published:** 29 July 2020

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**Funding Source:** None

**Competing Interest:** The authors have declared no competing interest.

**Citation:** Narvaez-Pernes, Nory Loyd, and Mottie Idasanka P. Santos. 2020. “Architectural Form and Meaning: Analyzing Perceptual Cues of Power in the Design of Provincial Capitol Buildings in Mindanao, Southern Philippines.” *Banwa A* 13: art055.

**Erratum:** See page 30 of the article for a detailed discussion of the changes to the publication

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## Introduction

THE WORD *POWER* (LATIN *POTĒRE*) originally meant an individual's capacity or "power to" achieve self-interests (Rorty 1992; Rouhana and Fiske 1995). This concept of power as capacity or "to be able" stems from "freedom" and "autonomy," and Dovey (2014) thought of this as but one of two notions of power. The other is power as control or "power over" others, which, in the context of a group where consensus is not the norm, is necessary to maintain order (Isaac 1987; Pred 2017) and achieve communal goals (Lukes 1974).

In this paper, the focus is on power as control, which can be exercised by *force* (subjects comply without choice), *coercion* (latent threat of consequence), *manipulation* (keeping the subject ignorant), *seduction* (construction of desires and ideals), and *authority* (systematized provision of common good) (Dovey 2014; 2018). The dynamics where the majority of members give up some capacities and enable a few to control the group are instituted in power structures such as the family, religion, government, finance, and education.

These power structures need tools to legitimize their exercise of control and gain compliance from their subjects (Arendt 1986). Power structures need a *figure* (usually person/s living or dead, real or imagined, with uncommon capacities, virtues, skills, and qualities), *rituals* (repeated activities, ceremonies, or traditions),

*resources* (access or display of materials and assets), *communication* (words, images, declarations, presence), and *places* (specific physical space or structure) (Dovey 2014). Usually in unison, these legitimizing tools compose the imagery of power. In semiological terms, these legitimizing tools are the symbols that carry the meaning of power as the sign, making the latter manifest (Monnet 2011). In other words, power as a sign will always need symbols as evidence of its reality (Phare 2016).

In this study, the focus is on *place*, that is, the architectural built form, as a symbol of power. The ideas of various scholars have been used in discourses on power as embodied by architecture. For example, the philosopher Michel Foucault's conceptions of the *panopticon* and *heterotopia* show that built space can be an apparatus for the exercise of power through surveillance and control (Archer 2005; Lambert 2013); Pierre Bourdieu's concept of *habitus*, "a set of personally held dispositions around which a person's thoughts and activities are structured," is shaped by the potentials and limits exerted by the built environment (Archer 2005); and Henri Lefebvre's ideas on the *Production of Space* posits space as a means to "assert and maintain ideological and political power and control" (Zieleniec 2018). Even Jacques Derrida's work on deconstruction contributed greatly to the establishment of the deconstructivist architectural movement (Hoteit 2015). But while these scholars have been widely cited in architectural discourse, their social theories "rarely discuss built form and the ways in which their work is applied to design practice in general" (Dovey 2014). Hence, for this study, the work of Dovey provides a pragmatic lens to understand how power is mediated through the form of government buildings.

## Power in the Context of Philippine Society

This general concept, that power is legitimized by a collective symbol of figure/person, rituals, communication, resources, and structures, can be observed across the four broad historical periods of evolution in Philippine society.

During the precolonial era, the *datu* (chieftain) was a central figure of localized power. Since residents were dispersed across island or land settlements, power was exercised in "control

of people” rather than “control of land.” The *datu* maintained power by providing his subjects with materials for subsistence, increasing followers by subjugating other groups through violence, and projecting charismatic “martial prowess” through rituals and traditions. In the southern parts of the country where groups participated in long-distance maritime trade and accepted Islam as a “Great Tradition” religion, supra-settlement political authority was established to retain power, which impeded their colonization (Sidel 1999).

During the Spanish colonial period (1521), central secular administration concentrated economic activity in the archipelago’s northern parts to sustain the Manila galleon trade with China. On the other hand, the Spanish friars of Catholic religious orders, more freely accessed the archipelago’s dispersed settlements, introduced a new religion, and became the most visible manifestation of Spanish power. The new power gained legitimacy not from affirmation from the local residents but from a “supralocal, quasi-legalistic political order”—composed of Spanish *conquistadores* awarded with land (*encomiendas*), Spanish provincial governors (*alcaldes mayores*) awarded with local trade monopolies, and the *datos* with their descendants appointed as village headmen (*cabezas de barangay*) and town executives (*gobernadorcillos*), collectively known as *principales*. Exempted from tribute, these locals continued monopolies over coercive taxation and were given pseudo-power by appointment. Religion provided elaborate, repetitive, and ritualistic traditions to saturate consciousness, form a new social culture, and retain the tolerance of power in these settlements and municipalities (Sidel 1999). A seminal “increase” in power occurred when in the eighteenth century, two hundred years after occupation, the Spanish administration initiated a municipal-level election, restricted to male *principales*, and closely regulated—almost manipulated—by Spanish friars. Discretionary power, then, was awarded to the elected officials, but jurisdiction remained only within the settlement or municipality. In 1797, a reform during the reign of Charles III gave an unprecedented private capital to these elected local officials as a resource to acquire landholdings, build revenue farms, and secure monopolies, thus

strengthening localized socio-economic-political power. Localized power preserved the separation of settlements and impeded nation-building (Sidel 1999).

During the American colonial period (1898), this localized power underwent an “upward” shift when in 1901 to 1935, elections were organized to install national-, provincial-, and district-level Filipino officials—arguably resulting in a “hastily constructed nation” (Pye and Pye 1985; Sidel 1999). The American authorities sought to “win hearts and minds” by using symbols and signs rather than only weapons. They employed the rhetoric of Manifest Destiny, distributed social services (such as schools and toilets), expanded suffrage, issued proclamations, and gave speeches—all to manipulate, duplicate, and instill the “American spirit” of democracy in a Filipino nation (Go 2008). By this time, the local government authority in the Spanish-period municipalities was systematized, and officials exerted discretionary efforts to appropriate funds, manipulate the police, manage infrastructure, and appoint bureaucrats in government offices.

By 1946, after the Philippines gained independence, the political power in government was connected with economics. Academic discourse describes Philippine power dynamics in three major paradigms: patron-client relations, landed oligarchy, or local bossism (Sidel 1999) as evidenced by political dynasties, economic monopolies and their influence over electoral candidates, and the majority of society’s marginalization.

At present, this country has a representative democratic system, with three coequal branches: the executive (Office of the President), legislative (Congress), and judiciary (Supreme Court of the Philippines) collectively known as the national government. The local government units, on the other hand, are divided into four administrative divisions, namely, autonomous regions, provinces, municipalities/cities, and *barangays*. This present system of government is said to have been inherited from the American government, but with rootedness in the precolonial *barangay* settlement.

How power was exercised through force, coercion, manipulation, seduction, and authority

evolved throughout the course of building the Philippine nation. Power was *obtained* through violence as new figures introduced themselves and dominated subjects. The figure started as a local strongman (*datu*) and was expanded to a group (*principales*) and then linked to a stratified system (hierarchical elected officials). The prolonged forceful and coercive threat of consequences, however, bred insurrection. So in order to *sustain* power, nonviolent measures of manipulation and seduction through religion, education, and cultural integration were exerted to reform collective consciousness. And in order to *perpetuate* power, systems of governance—patterned after the American democratic government—were established to rigidly intertwine with economic and sociocultural activities. Various tools were employed to display power and gain compliance, acquiescence, and tutelage. Of the five legitimizing tools, however, architectural objects are arguably the most enduring symbol of power in the Philippines. The act of colonization left centuries-old physical structures as evidence of this longevity.

While the literature in Philippine politics has focused on the dominant paradigms in the nationwide interplays of power (Sidel 1999; McPerson 2002), this paper investigates how people, at present, perceive physical structures attributed to power. Are these structures still regarded as symbols of power like before, or did the intended meanings change? This particular inquiry on the present meanings of power can shed light on the depth of colonial mentality engraved through historical association to structures and the latter's active and potent role in perpetuating intangible ideals.

### Architecture in the Philippines

One way to understand how power evolved in the context of the Philippines is to look at the architectural objects that were built to serve the motives of the people in control. Consider, for example, the Philippine Malacañan Palace designed and decorated as an icon of wealth, hospitality, and lavishness. It arguably symbolized “Philippine nationhood” during the early years of the Marcos regime (Lico 2003). This association between power and architecture can be traced

back through the various historical eras that have shaped the nation.

Philippine precolonial architecture was characterized by human scale, sensitivity to the environment, and the concept of community (Jocano 1998). Settlements were nucleated by ethnolinguistic groups with up to two hundred members under a *datu* or chieftain, whose residence is made prominent through larger floor size, carcass decorations from hunting, colorful paints, or central location. Houses were typified by the *bahay kubo* (cube house), of the same sizes, and made of temporary materials readily available on-site. In places where warring was frequent, safety was ensured by mounting houses on top of trees or elevating the living space that can only be accessed through detachable stairs. Agricultural products are kept within the domestic space for safekeeping and ownership.

During the Spanish colonial period, especially in Manila, the reorganization of the settlements into fortified urban centers took place. Materials originally used as building materials such as wood and dried leaves were replaced with stone, and when this did not survive frequent earthquakes, a hybrid domestic architecture of stone and wood emerged. The sense of scale also changed, from human to monumental. The Catholic church, which was the central building in these urban centers, became a testament to the Spanish friar's exercise of power as labor was supplied by the locals as a form of coercive taxation. These friars became agents for adopting foreign architectural styles and building techniques. The residences of the *principales* were erected near the church and the town plaza where pompous public events, parades, and entertainment were held. The farther a house was from this nucleus, the less its importance and prominence. This grid layout of streets with a clear center of power became standard through the Laws of the Indies, which guided and regulated the establishment of settlements in the Spanish colonies. Bridges, lighthouses, schools (restricted to few students only), and offices made of more permanent materials were erected to support economic activity or the lifestyle of the privileged. Those who were trained under Spanish friars became *maestro de obras*, most of whom became future beneficiaries of American scholarships to academic institutions overseas.



The American colonial period was marked by the secularization and separation of church and state. Guided by the rhetoric of Manifest Destiny, and other concepts from the City Beautiful movement, Neoclassicism, and Modernism, the American authorities erected government complexes that were more monumental in scale compared to those of the Spaniards. The election of national, provincial, municipal, and city local officials meant the construction of numerous government buildings in all political territories, with most of which being prehispanic nucleated settlements. The government complexes were designed with boulevards lined with Neoclassicist edifices built in concrete, a new building material more versatile than stone. Education became available to the masses—albeit as a way of manipulation—and schoolhouses in the colony were built using a standard form designed by American architect and city planner William Parsons. Through scholarships, Filipino architects were trained in America and became agents of transferring contemporary architectural styles in the local context. These styles include Art Deco, Streamline Moderne, and Beaux-Arts, just to name a few. But some of these American-trained Filipino architects managed to incorporate vernacular motifs in their designs in an effort to connect with their precolonial roots and endemic cultures (Lico 2008).

The legacy of Philippine architecture is recorded in a few books, most of which featured general surveys on Philippine architecture, texts on indigenous, Hispanic, and American colonial building traditions, as well as architectural achievements during the post-independence republic. An example is volume 4 of the *Cultural Center of the Philippines Encyclopedia of Art* (2017).

However, only two books seem to be specifically dedicated to the understanding of government buildings as tools for power in the Philippine context: Gerard Lico's *Edifice Complex: Power, Myth, and Marcos State Architecture* (2003) and Paulo Alcarazen et al.'s *Malacañan Palace: The Official Illustrated History* (2005). Published studies on government buildings by local authors focus more on conservation projects (e.g., Mata 2009), architectural styles (e.g., Ogura et al. 2002),

employee satisfaction in an office space (e.g., Villanueva et al. 2018), and political issues (e.g., Brillantes and Fernández 2011), but very few focus on architecture as symbols of power to emphasize their historical and cultural significance. The few studies which did only featured buildings in Manila (Shatkin 2005; Cabalfin 2016), centered on a specific designer (Hines 1972), or were not even published but are academic theses (Cabalfin 2003; Alcarazen 2000). Publications on postcolonial Philippine architecture only featured iconic structures (Cabalfin 2005; Lico 2017) or iconic designers (Santillan 2009; Ogura et al. 2002), and none discussed topics related to Mindanao (except for the Church of the Monastery of Transfiguration in Bukidnon by Leandro Locsin mentioned in Cabalfin 2005).

Amidst this scarcity of documentation, none is as stark as the lack of resources on the historic structures of Mindanao. Publications on Mindanao architecture are mainly on precolonial indigenous dwellings and building traditions of the Manobo (Garvan 1931), of various ethnolinguistic groups in the Davao District (Cole 1913), of the Maranao (Madale 1997), and of the Tausug (Jainal et al. 1972). Spanish period narratives include specific documentation on building types focused on Luzon but none specifically in Mindanao. Norma Alarcón (2008) in her book on American colonial period, *The Imperial Tapestry: American Colonial Architecture in the Philippines*, did not include architectural examples from Mindanao despite being sourced directly from the Library of Congress in Washington DC where all historic reports on American colonization and construction ventures, some of which in Mindanao, are supposedly stored.

Despite this dearth in publications, Mindanao offers many structures that demonstrate political power and architecture. As Dovey (2004) highlights, architectural objects can force usage within its interior space through segregation and demarcation. They can coerce with subtle visual reminders of consequences. But perhaps the deepest value of these architectural objects lies in their efficacy to seduce, transform one's "vision of the world," and lead the subject in a "complicitous silence" of captured affection.

## Semiology and Architecture

The discourse on power in the context of architectural form is intertwined with archaeological, historical, and anthropological studies (Ching et al. 2017). While built structures can last for centuries, the meanings of power ascribed to a building are not as permanent. It is dependent on the historic period, cultural condition, power actors, and the people beholding these symbols. But at any point in history, these collective meanings are acknowledged by all, understood by all, and shared by all—creating a collective identity among a group (Monnet 2011). The process of how the formal characteristics of a building symbolize a certain visual message (sign) can be explained by theories in semiotics.

Two thinkers developed independent but interrelated theoretical doctrines in the study of signs as knowledge (Chapman et al. 2004), the Swiss-French linguist Ferdinand de Saussure (1857–1913) and the American philosopher Charles Sanders Pierce (1839–1914). Saussure postulated that a sign is made of two primary components—“the *signified* (meaning-concept) and the *signifier* (sound-image)” —a theoretical tradition called semiology. This dual model explains that the signifier has a physical existence that carries an arbitrary signified meaning conditioned by the community (Ramzy 2013). Pierce, on the other hand, offered a triad model consisting of the *representamen* (meaning), the *emitter* (sign-object), and the *interpretant* (receiver-interpretant) to explain the sign, a theoretical tradition called semiotics. The Saussurean model is generally used in linguistics, language, and texts while the Piercean model has wider applications including different media and visual arts (Ramzy 2013). Other semioticians applied these theoretical traditions to other types of signs such as Roland Barthes on photographs, Levi-Strauss on food, and Algirdas Greimas and Umberto Eco on architectural works (Juodinytė-Kuznetsova 2011; Goharipour 2019).

In the 1900s, theoreticians labored to demonstrate how architecture can be understood like language and imbued with meaning. Peter Kummel depicted architectural works as visual phenomena and not merely as inert objects (Ramzy 2013), while Hammad and Group

showed how architectural drawings can be understood by workmen and consequently constructed on-site (Tasheva 2012). George Braid and Charles Jencks in *Meaning and Architecture* elaborated on the tendency of architecture to become a signifying language, which became the basis for “the language of postmodernism in architecture” (Hale 2000). They went on to develop the semiologic triangle that combined the models of Saussure and Pierce (Chapman et al. 2004). Julien Greimas, in 1917, developed the semiotics of architecture that related architectural buildings to sociocultural processes (Juodinytė-Kuznetsova 2011). In 1976, the Greimassian semiotic theory was developed by Gerard Lukken and Mark Searle (1993) into a practical method for analyzing the Church of Saints Peter and Paul in Tilburg.

Notable examples of recent scholarly works in semiotics and architecture include analysis of the funerary complex of Sultan Qaitbay in Cairo (Ramzy 2013); residential architecture in the traditional city of Bushehr, Iran (Parsaee et al. 2015); built heritage of a historic temple town in Kumbakonam, India (Kiruthiga and Thirumaran 2017); and the central courtyards of Iran through the use of films as cinematic texts (Goharipour 2019). These recent works are cited because they represent varying methods in analyzing architectural forms, ranging from adopted semiotic models, empirical models, and an interdisciplinary approach, respectively. They also represent the contrast between objective and subjective approaches as the two main broad philosophical positions in investigating architectural environments (Goharipour 2011).

These and other recent studies (e.g., Coaldrake 1996; Charney 2007; Boykov 2013; Moser and Wilbur 2017; Morton 2017; Atkinson et al. 2017) use various methods in studying the different architectural case studies. However, in surveying the literature, the following gaps have been observed: (1) the semiotic models (e.g., interpretation of forms through religious and cultural texts) tend to focus on *what* meaning is produced, not *how* the meaning is translated from the physical building component to the abstract concept; (2) the empirical model (e.g., using regression to study residential architecture) can be reductionist when disregarding immaterial

influences to the built form; and (3) the narrative model (e.g., using films to study the meaning of central courtyards) can be myopic because architecture is narrowed to sequential, time-bound spaces.

The goals and methodology of this study, thus, aimed to address the following gaps, namely, (1) the lack of analysis on government buildings as a tool for power discourse in Philippine society; (2) the lack of documentation on the architectural heritage in Mindanao; and (3) the need to explore an analytical tool to elaborate *how* buildings convey meanings, not just *what* meanings they convey. Choosing provincial government buildings in Mindanao aims to address the first two gaps. The semiological approach described hereafter aims to address the last. Provincial government buildings were chosen as case studies because they were (1) built to legitimize political power (either by the colonizers or elected officials), (2) function as the local government unit with the broadest jurisdiction, and (3) are more linked to local residents as they are dispersed across the Mindanao island, in contrast to the centrally located national government buildings.

## Framework and Methodology

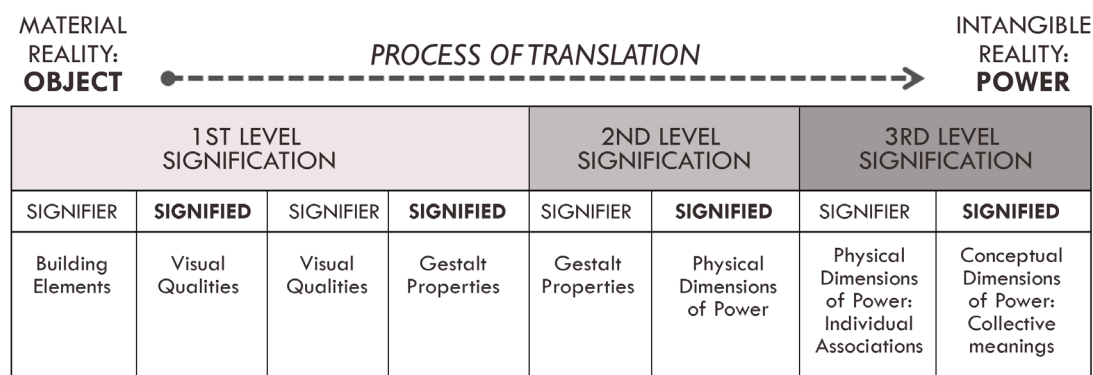
The proposed semiological approach in this study can be characterized by two qualities.

First, it expands on Barthes's original semiotic model in 1974 with three orders of

signification (Parsaee et al. 2015) by including salient principles of vision and perception. Thus, this approach (Figure 1) tries to demonstrate a *refined* process of *how* the meaning of power is translated from the building. Present semiotic methods seem to focus on what meanings are created, rather than the process. However, like some related studies (Hansen 1989; Hillier 1999; Tschumi 1994; Psarra 2009), emphasis is placed in understanding the physical properties of the objects first (called bottom-top processing). Then, from this understanding of the tangible properties of form that generates perceptual meaning, "cultural associations" are appropriated into the object to understand its conceptual (or contextual) meaning (top-bottom processing).

Second, this approach has the features of a multidisciplinary method in analyzing architectural form. It tries, albeit with difficulty, to connect semiological meanings (semiology) with the roots of visual perception (cognitive science and perception psychology). As multidisciplinary studies become more necessary nowadays, the formulation of methods that can integrate ideas from different disciplines is required. This method points to this multifacetedness (Figure 2).

The usefulness of this approach was tested in the analysis of eighteen provincial government buildings in Mindanao, Southern Philippines. These buildings are also referred to in the discussion as "capitol" (local: *kapitolyo*), a term originally used in 1791 (brought by colonizers in the nineteenth century) to refer to the Capitol Hill



**FIGURE 1** Variables are assigned as signified and signifier in the flow of analysis translating material object to intangible meaning

Phase	OBJECT IDENTIFICATION	VISUAL SENSATION	FORM PERCEPTION	MEANING MEDIATION	OBJECT IDENTIFICATION
Process	NOTICE BUILDING COMPONENTS (Unwin 2002)	RECOGNIZE VISUAL QUALITY (Puhalla 2011)	ORGANIZE COMPOSITIONAL ORDER (Wertheimer 2017)	ATTRIBUTE INDIVIDUAL MEANINGS (Dovey 2014)	REPRESENT COLLECTIVE MEANINGS (Parsaei 2015)
Variables	Ground/ Site Roof/ Canopy Support Barrier/ Walls Platform/ Floor Lowered Area/Pit Pathways Openings Focus Marker	Axis Alignment Density/ Grouping Connections Terminations Convergence Sequence Position Orientation Balance Scale Proportion Hierarchy Focal Point Weight Tension Rhythm	Symmetry Proximity Similarity Closure Figure-Ground Relationship	Physical Dimension:  Dominance/ Docility  Stability/ Dynamism  Orientation/ Disorientation  Segregation/ Access  Publicity/ Privacy  Authenticity/ Fraud	Conceptual Dimension:  Nature of Power  Place of Power  Metaphor for identity
Analysis of Signification	1ST LEVEL SIGNIFICATION (Encoded and Understood physical existence)			2ND LEVEL SIGNIFICATION (Perceived connotation)	3RD LEVEL SIGNIFICATION (Collective Cultural Concept)

**FIGURE 2** How is “power,” as meaning, translated from the form of an architectural object? The semiological approach used in the study synthesizing different approaches from various sources.

in Washington DC, the United States’ center of government. On-site visits to each of these capitols were conducted intermittently between February to March 2015.

The semiological process starts with an inventory of physical characteristics of the building to generate perceptual meanings, then these properties were examined through an external framework of power by Dovey (2014), and, lastly, conceptual meanings were inferred from cultural associations of the residents. The relevant variables and operational definitions are collated in Table 1.

### Phase 1: Object Identification

In the first phase, individual elements of the architectural form of a capitol at the floor, wall, and roof levels were enumerated (Unwin 2002; Vozniak and Butyrin 2019). Photographs were taken to include a front view of the facade showing the site, the approach to the building, and different individual building parts with unique features. These forms enter the eye as external stimuli, almost neutral, but in neuroscientific terms, this

process of object recognition is a highly complex “ability to rapidly recognize objects in the central visual field in the face of image variation” (DiCarlo et al. 2012). Fully explaining all the visual stimuli may require inaccessible computational methods. Hence, for the purposes of this paper, architectonic descriptive analysis sufficed in characterizing the individual building elements. A concise building data sheet was compiled to catalog salient features and historical information for each of the buildings (see Appendix).

### Phase 2: Visual Sensation

In this phase, the focus is on trying to capture the visual quality of the form. Each building was abstracted through a computer drawing software in order to analyze its visual quality. This intrinsic visual quality clarifies the relationship of one building element to another. For example, in terms of scale, the characteristics of a column with regards to the type of window can be qualified as monumental. The intrinsic visual quality translates these neutral building parts into elements of architectural design.

**TABLE 1** Definition of variables in the study

Term	Definition
Object identification	- Phase in the semiological process where the individual parts of the structure are itemized, named, and described for its architectonic characteristics
Elements/parts of a structure (Unwin 2002)	<ul style="list-style-type: none"> <li>- Ground/site (surface of the earth where a building was constructed)</li> <li>- Roof canopy (sheltering component located above the walls)</li> <li>- Support (structural components that bear the weight of the roof, walls, and floors above the natural ground)</li> <li>- Barrier/walls (physical or psychological divide of space from another)</li> <li>- Platform/floor (horizontal volume created or lifted above the natural ground)</li> <li>- Lowered area/pit (excavation from the ground's surface)</li> <li>- Pathways (a space for circulation and traffic)</li> <li>- Openings (breaks in wall surfaces to admit light and/or traffic or allow for views)</li> <li>- Focus (an area within a building of visual, activity, or directional concentration)</li> <li>- Marker (stand-out element that identifies a specific place)</li> </ul>
Visual sensation	- Phase in the semiological process where parts of the structure are described according to their visual quality; sensation is regarded as a physical process
Visual quality	- Properties of objects that the human mind can sense as stimulus
Properties describing visual quality (Puhalla 2011)	<ul style="list-style-type: none"> <li>- Axis (implied or intrinsic forces that serve as reference points: horizontal, vertical, center)</li> <li>- Alignment (degree to which elements are parallel to each other)</li> <li>- Density (availability of free space to allow visual rest or visual crowding connections; transitional elements that allow elements to be related to each other)</li> <li>- Terminations (end point, last element in a series, enclosure)</li> <li>- Convergence (degree to which elements are connected)</li> <li>- Sequence (a psychological sequence generated from similar elements in proximity)</li> <li>- Position (specific occupied space)</li> <li>- Orientation (direction to where an element faces)</li> <li>- Balance (equality among various part of the composition)</li> <li>- Scale (the size of an object relative to other surrounding elements or dimensions of the human body)</li> <li>- Proportion (mathematical relationships among real dimensions of a form)</li> <li>- Hierarchy (difference between dominant and subordinate elements on the design; degree of visual importance)</li> <li>- Focal point (a point of concentration that suggests direction or origin)</li> <li>- Weight (conditions that make the volume appear heavy or light figuratively)</li> <li>- Tension (created when elements are in acute or obtuse angle with the axis)</li> <li>- Rhythm (a regular pulsation; is a sequential visual movement, patterned through repetition)</li> </ul>
Form perception	- Phase in the semiological process where the compositional order of the structure is described; perception is regarded as a psychological process that entails understanding and connecting stimuli to meanings
Compositional order	- Qualities associated with the gestalt properties of an object that express intrinsic perceptual meanings)
Gestalt properties (Wertheimer 1927)	<ul style="list-style-type: none"> <li>- Symmetry (how objects align with the axes and demonstrate visual balance)</li> <li>- Proximity (space between elements that relates them as a group)</li> <li>- Similarity (degree of sameness or replicated features)</li> <li>- Closure (a mental tendency to know missing parts and complete a figure)</li> <li>- Figure-ground relationship (object-surface contrast based on visual sharpness or contour)</li> </ul>
Meaning mediation	- Phase in the semiological process where the object is appropriated with external theoretical framework to generate conceptual meaning based on the framework of Dovey (2014) on understanding exercise and dimensions of power; mediation is a transitional process where meanings are sourced from available and related phenomena



**TABLE 1** Continued

Term	Definition
Physical dimensions of power (Dovey 2014)	<ul style="list-style-type: none"> <li>- Dominance/Docility (control over resources and manpower)</li> <li>- Stability/Dynamism (production of illusions of permanence)</li> <li>- Orientation/Disorientation (clarity of direction)</li> <li>- Segregation/Access (privileged enclaves and limited access for certain kinds of people)</li> <li>- Publicity/Privacy (clear demarcation between rights of entry, strategies for promotion, or seclusion)</li> <li>- Authenticity/Fraud (projecting associative character using familiar forms, suggesting ownership and reliability)</li> </ul>
Meaning endowment	- Phase in the semiological process where the object is appropriated with conceptual meanings generated from shared perception and experiences of observers; endowment is a more permanent process where agreement and assimilation of meanings among group members can be observed

The capitol as an object in three-dimensional space was translated (or reduced) to its two-dimensional facade—chosen specifically because it has the widest surface area and contains most of the design features. This reduction was necessary to understand the basic geometries and configuration of the form (Psarra 2009). For example, through descriptive analysis of the building parts gathered in phase 1, the axis of the general form was qualified as vertically centered because of the positioning of columns, stairs, and wall molding, among others. The visual quality generates perceptual meanings (Psarra 2009) that can be independent of cultural meanings (Hillier 1999). A sample of these abstracted drawings is shown in Figure 3.

### Phase 3: Form Perception



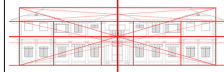








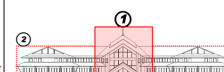






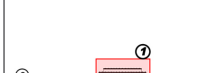
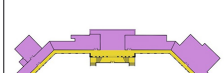


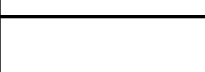
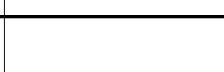
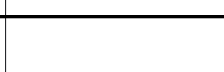
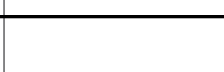
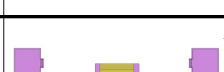





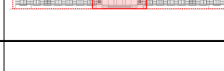
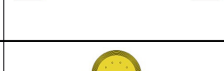
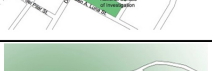
In this phase, the visual qualities (as signifier) are *organized* into the gestalt properties of the architectural form. Gestalt phenomenon suggests that the mind tends to simplify objects into an organized and coherent whole (Wertheimer 2017). This theory expounds that the mind does this simplification to all types of stimuli and searches for the whole form to perceive the environment. This mental action is significant as it allows the mind to *create memory* (Dajose 2019). However, one of the limitations of gestalt analysis is its applicability only to two-dimensional figures and not three-dimensional objects. Data from phase 2 was two-dimensional drawings, which is why gestalt theory was specifically selected to adhere with previous analysis of visual quality. Through a descriptive analysis of the two-dimensional

drawings of the facade, several diagrams were generated to describe its gestalt properties. Condensed figures for all buildings are included in the appended building data sheet.

Phases 1 to 3, through a thorough descriptive analysis, created perceptual meanings symbolized by the physical properties and configurations of each of the buildings. According to Hillier's configurational theory in architecture (1999), objects can be independent of the conceptual meanings found in their external context. Phase 1 through 3 demonstrated the important role of architectural objects in “*express[ing]* meaning from configuration” (Psarra 2009). The last two phases (4 and 5), then, attempt to incorporate external meanings into this perceptual meaning by exploring relevant theoretical sources and the surrounding cultural context.

### Phase 4: Meaning Mediation

In this phase, the whole form of the capitol is understood not just as an image formed from its physical perceptual properties, but as a dynamic part of a context. Meanings can be externally sourced and selected from other domain-specific perspectives to explain a singular phenomenon or object (Ramzy 2013). This paper aims to understand how power is exercised through the form and design of architectural objects. To answer this, the framework used by Dovey (2014) and Lico (2003) is adopted as both of them discussed government buildings as architectural tools to display power. Dovey, in his 1999 seminal book (second edition published in 2014) on this subject, focused on floor plan configuration and

CAPITOL	SCALE, PROPORTION, GROUPING, RHYTHM	AXIS, ALIGNMENT, BALANCE	VISUAL DENSITY, WEIGHT	HIERARCHY, FOCAL POINT, TENSION	CONNECTIONS, TERMINATIONS, SEQUENCE	SEQUENCE, ORIENTATION, POSITION
<i>Front View of Building/Facade</i>	<i>Major parts of form marked</i>	<i>Boundaries plotted with axes</i>	<i>Surface articulations demarcated</i>	<i>Dominant &amp; subsidiary forms identified</i>	<i>Corridor &amp; Interior spaces defined</i>	<i>Building Footprint related to site</i>
						
						
						
						
						

**FIGURE 3** Sample abstracted images representing the visual quality of each building

used space syntax analysis. Lico, in his book on the Marcos regime, focused on the historical-political motives surrounding selected buildings built during the Marcos presidency.

Pictures collated from phase 1 were revisited. Videos captured the spatial interaction between the immovable buildings and animate elements like people, vegetation, clouds, and vehicles. The aim of the content analysis is to look for features that express power in terms of the following dimensions:

- *Dominance vs docility* – control over resources and manpower
- *Stability vs dynamism* – production of illusions of permanence
- *Orientation vs disorientation* – clarity of direction
- *Segregation vs access* – privileged enclaves and limited access for certain kinds of people
- *Publicity vs privacy* – clear demarcation between rights of entry, strategies for promotion or seclusion
- *Authenticity vs fraud* – projecting associative character using familiar forms, suggesting ownership and reliability

#### Phase 5: Meaning Endowment

In phases 1 to 4, architectural objects have to be seen to express meaning. In this phase, another source of meaning is investigated, i.e., the perception of people with direct spatial experience. Architectural objects do not just express meaning but generate new ones, which may explain why meanings change. A structured survey that contains fourteen statements was given to 120 randomly selected legal-aged residents who have lived in the province for at least five years and have interacted with the capitol directly. The survey, based on Klassen's framework on architectural history (1980), assessed the respondent's level of agreement to the differing roles and influences of the capitol. In the questionnaire, they encircled numbers from 1 (very low) to 5 (very high) to communicate their answers. Also, unstructured interviews were conducted to ask these people how they perceived the capitol today. The survey was intentionally designed to be concise considering the time limitations of the field visits.

The responses were synthesized by computing the mean score for each statement, arranging them in tabular form, and interpreting the level of perceived agreement as low, moderate, or high.

## Results and Discussion

### Study Area

The geographic study area is Mindanao, the second major island in the Philippines, which has twenty-seven provinces. The selected eighteen out of twenty-seven capitols (Figure 4) were characterized as follows: habitable (by regular users), already built (not proposed for construction), usable (not in ruins or decay), functional (based on government mandate), attributed to a figure of power or authority (incumbent office of an elected official), and accessible (may be visited within the schedule for field study). The capitols in Basilan, Sulu, Davao Occidental, General Santos, Lanao del Sur, Dinagat Islands, Maguindanao, Zamboanga del Sur, and Zamboanga del Norte were not included in the study because travel to these places was restricted, logistically difficult, or the request to gather information was not approved within the scheduled field visit. The field visits produced a hefty collection of data on all eighteen capitol buildings with the foremost goal of contributing to exhaustive documentation of baseline data on the architecture of Mindanao.

The history of the Philippine government included a period of American colonization, which happened after the Americans defeated the Spaniards in 1898, and the Americans won in the Philippine-American War in 1902. To establish their rule to govern the new colony, the Americans set to build monumental government complexes starting at the capital city of Manila. They also built educational centers, housing with improved communal health facilities, and other conveniences suited to the American lifestyle. This contrasted with the religious centers the Spaniards built during their occupation, although the new government centers were located in previous Spanish-period settlements.

The capitols in Mindanao were built shortly before or rebuilt after the Second World War



**FIGURE 4** Location of selected provincial government buildings, also known as provincial capitols

(1939–1945) under the United States–funded Rehabilitation Act of 1946, with the first building (Bukidnon Provincial Capitol) prefunded and built in 1933. The capitols were constructed after the declaration of a province as an independent entity, usually separating huge tracts of land like the provinces of Sarangani and South Cotabato from its mother province, Cotabato. Most provinces were populated by a mixture of ethnolinguistic groups, Filipino locals or migrants from other islands, as well as American guerilla units (McFerson 2002).

The earliest capitols were designed by American architects; for example, Luis Regner designed the Agusan del Norte Provincial Capitol, which was built in 1951. One capitol, the Misamis Occidental Provincial Capitol that was constructed in 1935, was designed by prominent Filipino architect Juan Arellano. His design (floor plan and elevations) were replicated on the Surigao del Norte Provincial Capitol, which was built in 1950 and is regarded as the “twin capitol” of Misamis Occidental. Recent capitols

were designed by planning offices such as the Compostela Provincial Capitol, which was built in 2001 by the Planning Division of the Provincial Engineer’s Office.

A major influence of the early provincial capitols is the Neoclassical style dominant in the design of American-built infrastructure projects in the 1900s and propagated by Filipino architects called *pensionados* schooled through scholarships in the Beaux-Arts design tradition in America. The buildings of this style are characterized by articulated or textured colonnades at the facade, raised staircase, white or pale exterior finishes, as well as repeated bands of individual windows. It was notable that the surface patterns on some buildings such as the Misamis Occidental Capitol depict the local flora unique to the province. Its “twin capitol” of Surigao del Norte depicted the local agricultural themes on its facade. Succeeding capitols were of the Modernist style, influenced by popular architectural expressions like the International style, characterized by its lack of ornaments, distinct volumetric composition, use

of glass and concrete, and use of accent to contrast plain colors.

The capitols built starting the year 2000 were a display of diverse styles. Regionalist designs such as the Zamboanga Sibugay Capitol were heavily infused with patterns and forms from the local culture (e.g., steel rings, conical roof design, carved beams, and vibrant colored patterns). Neovernacular designs also took inspirations from the *bahay kubo* such as the Lanao del Norte Provincial Capitol with its pyramidal roof, high ceiling, and simulated natural building materials. Postmodern designs were characterized by the exuberant use of bold colors, patterns, and scale such as the Davao del Sur Capitol. It is notable, however, that the most recently constructed building, Davao Oriental Provincial Capitol, was designed again in the Neoclassical style with the stylized domes, two-storey-high columns, and immaculate white facade (Figure 5).

Two types of meanings are sought through the proposed semiological analysis of these capitols—first, what their intrinsic form means as a visual object (perceptual meaning) and, second, how people perceive these structures of power today (conceptual meaning). The translation process can be likened to a funneling motion with a bulk of data collected first and then distilled into the collective concepts.

One capitol was presented here to demonstrate the descriptive analysis of phase 1 (building elements), phase 2 (visual quality), and phase 3 (gestalt properties). However, the physical meanings described in phase 4 and the conceptual meanings attributed in phase 5 were distilled from the form analysis of all the eighteen capitols. The purpose of redacting presented data is to demonstrate a completed semiological analysis rather than the complete historical information about each building. Information on the individual provincial capitols can be found in the Appendix.

## Semiological Analysis

*Phase 1: Object Identification.* The architectural design of the capitols in Mindanao can be generalized into three styles: Neoclassical (1933–1951), Modernist (1972–1996), and Postmodernist/

Mixed (2000 onwards). The early buildings, like the Agusan del Norte capitol, echo the standard design by the American architect William Parsons who borrowed the general principles and characters of the Greek Classical temple buildings. The capitols designed in the Modernist style, like the South Cotabato Capitol, were simplified versions but still with strong visual references to Neoclassical buildings. The capitols designed in the Postmodern style exemplified regionalistic and vernacular characters (e.g., Lanao del Norte Capitol), use of new building materials (e.g., Surigao del Sur Capitol), and bold colorization (e.g., Zamboanga Sibugay Capitol). In all of the capitols, the facade (front wall) reflects the most elaborate architectural treatment to communicate the building's visual character.

In general, the horizontal segmentation of the capitols' designs is defined by simple socles ("shoes" of the column), strip thrusts (continuous wall molding) to differentiate the first and second floor, and low-height stylobate (stairway) leading to the main entrance. The vertical segmentation is defined by multiple imposing two-storey-high columns with simplistic capitals (head of the columns), engaged columns, broken (or niched) surfaces, and pilasters. According to the Greek design theory, horizontal elements give the impression of "solidity and stability" of the building while the vertical elements give the facade "lightness and upward tendency" (Vozniak and Butyrin 2019).

The wall surface treatments were made of solid cement, with no textured screens, and embedded with half-rounded or cubic columns spaced regularly. The top elements of the wall (roof-level) are brightly painted gables, imposing pediments, half-spherical domes, cantilevers, canopies, or arched eaves, mostly located at the center of the facade. The fenestrations were usually double casement windows or jalousies that allow natural light and ventilation and are decorated with simplistic cornices along its sides. Doors are mostly imposing rectangular double-width openings made of hardwood, decorated above with frontons or fixed glass windows.

It is important to enumerate the individual elements of a building as they create the foundation for all visual cognition. There is a

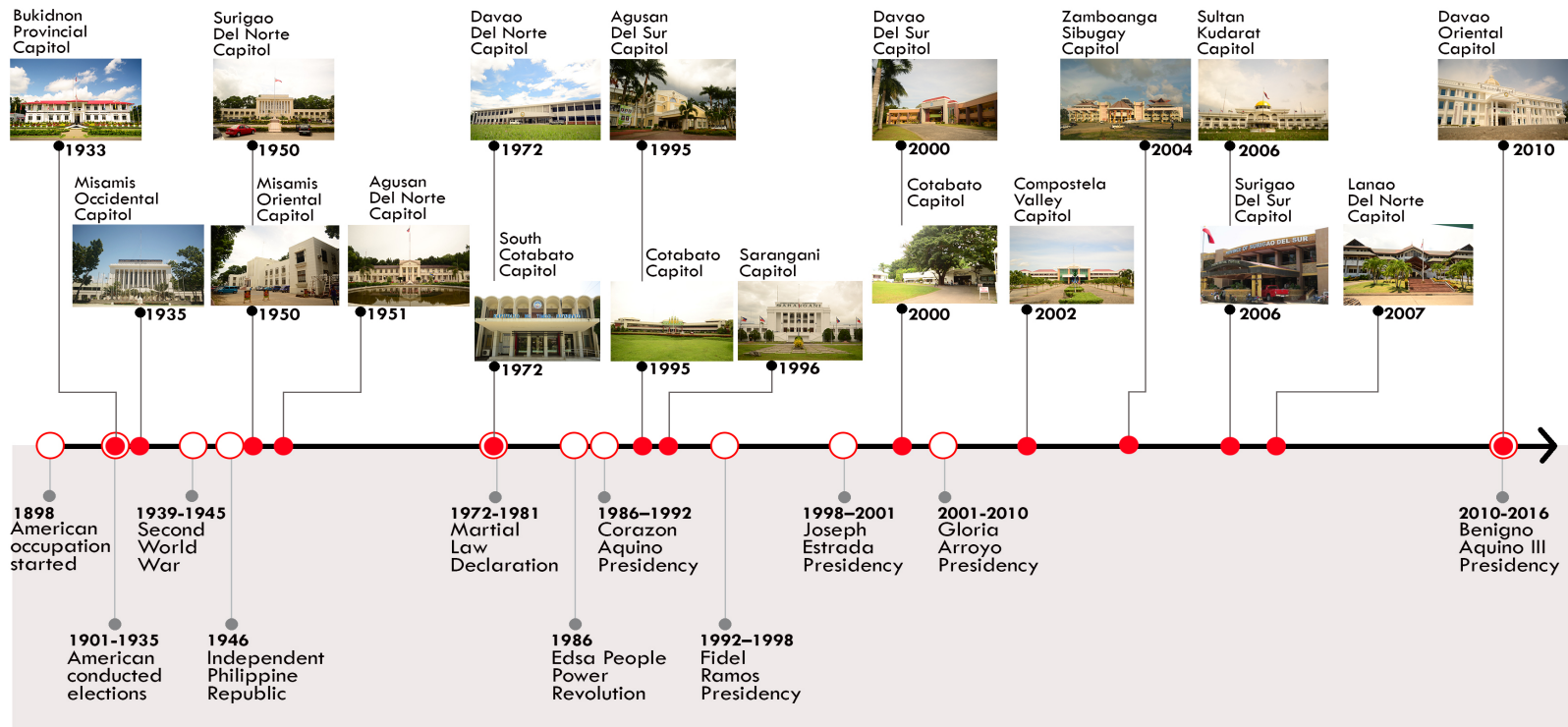


(1933-1951)

(1972-1996)

(2000 ONWARDS)

(2010)



**FIGURE 5** The evolution in the architectural design of the provincial capitols

necessary initial engagement required before any sensation, memory, or meaning can be created (Smagorinsky 2001). While the wall, floor, and roof are common to all buildings, architectural character, or the uniqueness in a building, is achieved by carefully selecting and designing each part. Psarra (2009) argued that these elements have intrinsic meaning in themselves, defined by their physical characteristics, which are always open to interpretation. Changing any of these elements will mean changing the overall visual quality sensed by an observer. On the other hand, assembling these elements in a certain way will relate to a recognizable architectural character.

*Phase 2: Visual Sensation.* The visual quality of the capitols can be signified by how the building elements are related and formed together. Six figures abstracted from the facade and plan of the capitols (Figure 6) were analyzed to find these qualities. The facade is composed of several parts in the floor, wall, and roof levels that function as relevant stimuli to an observer. There are two significant measures of the stimuli that will generate sensation in the observer's mind. First, the stimuli have to reach a "physiological threshold" when it is strong enough to excite sensory receptors and send signals to the brain. This is called the absolute threshold of sensation. Second, the stimuli have to reach a "threshold of difference" to be detected and differentiated from its surroundings, also known as Weber's Law (Goldstein 1996; Heffner, n.d.). This also means that the larger a stimulus the larger the difference required for it to be noticed. The capitols' designs have qualities that create this sensory strength and contrast needed to satisfy the mind's physiological and difference thresholds.

Most of the contours of the building parts align with the three major axes (center, horizontal, and vertical), which are said to be instinctively embedded in the human cognition (Puhalla 2011). Verticality is created by the two-storey full-height and slender columns, the upright walls, rectangular doors, and vertical markers such as the flagpoles. Horizontality is created by the expanded roof along the span of the building, continuous bands of groves, and the windows covered by flat jalousie panes. Centrality is created by elements such as the main entrance, extruded porte cochere, columned


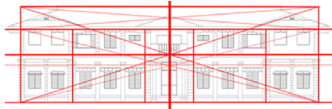
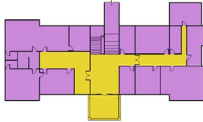

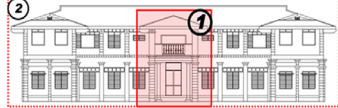

exterior lobby with a distinctive roof, projecting overhang, and an entrance doorway—all located in the middle with equal sets of parts on both its sides. These horizontal, vertical, and central elements—because of its balanced symmetry, orderly alignment, and position—all contribute to the efficacy of the object as a stimulus, strong enough to make the capitol palpable.

Second, the strength of the stimulus can also be attributed to the visual rest it allows the observer. The capitols have low visual density and low tension created by the use of a few types of shapes, usually rectangular and square, as well as the use of plain finishes and matte textures. The considerable amount of blank spaces on the walls provide visual rest, allowing the eyes to easily sense the image as less effort is exerted in analyzing individual details.

Third, the form of the capitol has a high level of differentiation created by its clear terminations, uncommon size, and strong visual weight. At the end of the facade on both sides are visually prominent elements, usually massive corner columns or pedimented walls. Its size can be characterized by monumental scale in contrast to the intimate human scale of domestic spaces. This is more emphasized by the capitol's position in the middle of a vast open lawn surrounding it. The components are also generally solid surfaces, without porous textures, which exude thickness and visual weight. The numerous bands of windows, pillars, landscape elements, and the three-landing staircase also signal intensity of form dissimilar to its immediate environment.

The geometry and configuration of the capitols signify the structural relationships of parts to the whole. These structural relationships define the visual field of an observer. The restrictions imposed on the visual field, geometry, and configuration help create meanings (Puhalla 2011).

The design of the capitols' facade is identified to have strong and differentiated elements—making its form sensible within the physiological and difference thresholds of a human mind. These qualities that generate sensations help to create perceptual meanings, described as intrinsic to the object, and can be distinct from other systems of reference outside it (Goldstein 1996; DiCarlo et al. 2012).

					
<b>SIGNIFIER:</b> BUILDING ELEMENTS (Height, Storeys, Protrusions, Openings)	<b>SIGNIFIED:</b> SCALE, PROPORTION, GROUPING, RHYTHM	<b>SIGNIFIER:</b> BUILDING ELEMENTS (Vertical and Horizontal Lines, Contours, Openings)	<b>SIGNIFIED:</b> AXIS, ALIGNMENT BALANCE	<b>SIGNIFIER:</b> BUILDING ELEMENTS (Corridor width and locations, wall types, Openings)	<b>SIGNIFIED:</b> CONNECTIONS, TERMINATIONS, SEQUENCE
<b>SCALE:</b> 12 meters Building Height <b>PROPORTION:</b> Two Storeys, High Interior Ceiling; each bay is approximately 1/5 of the building width <b>GROUPING:</b> Three extended bays with shallow depth marked by gable roofs <b>RHYTHM:</b> Repeated Jalousie Windows, horizontal	<b>SCALE:</b> Monumental (larger than the domestic space) <b>PROPORTION:</b> Standard proportion; form is an elongated domestic house <b>GROUPING:</b> Observed as one rectangle capped by a triangular roof <b>RHYTHM:</b> Gentle visual pulsation created by the short horizontal mouldings on columns, and window openings	<b>AXIS:</b> The entrance is located at the centerpoint, the entrance is located at intersecting diagonal axes <b>ALIGNMENT:</b> Columns are perpendicular to the roof ad floor; and regular shaped windows and doors parallel to upright columns <b>BALANCE:</b> Along the centerline, all elements are mirrored at both sides	<b>AXIS:</b> High reference to the implied vertical and horizontal axes <b>ALIGNMENT:</b> Distinct alignment created by parallel and perpendicular relation to the X-Y axes-references <b>BALANCE:</b> Symmetrical Balance	<b>CONNECTIONS:</b> All rooms connect through one distinct corridor, 2-3 meters wide. <b>CONVERGENCE:</b> One clear (16sqm) foyer located at the center of the floor flanked on both sides with single corridors <b>SEQUENCE:</b> Traffic proceeds from the outside lobby to an interior foyer and to the corridors. <b>TERMINATION:</b> Corridor ends on both wings with an enclosed room	<b>CONNECTIONS:</b> Highly connected to a unilateral passage. <b>CONVERGENCE:</b> High convergence created by outdoor and indoor lobby i.e. the central space for interior traffic <b>TERMINATION:</b> Clear defined termination points
					
<b>SIGNIFIER:</b> BUILDING ELEMENTS (Colors, Surfaces, Volumes, Protrusions)	<b>SIGNIFIED:</b> VISUAL DENSITY/ WEIGHT	<b>SIGNIFIER:</b> BUILDING ELEMENTS (Colors, Contours, Volumes, Protrusions)	<b>SIGNIFIED:</b> HIERARCHY, FOCAL POINT TENSION	<b>SIGNIFIER:</b> BUILDING ELEMENTS (Location of Building on Site)	<b>SIGNIFIED:</b> SEQUENCE, ORIENTATION, POSITION
<b>DENSITY:</b> Windows are repeated and located between columns; with a 2-2.5meters apart free space in between <b>WEIGHT:</b> The upper component i.e. the roof is colored red, darker than the lower wall color (immaculate white)	<b>DENSITY:</b> Low Visual Density created by singular color, repeated windows can easily be counted (visually comprehensible), ample space between windows <b>WEIGHT:</b> Strong visual weight created by the look heavier and bears down on the whole rectangular white volume	<b>HIERARCHY:</b> There is a center mass corresponding to the entrance. Two slightly larger (but shallower) masses protrude on both sides to define the edge <b>FOCAL POINT:</b> At the center is an exterior lobby demarcated by the roof, where entry door is located <b>VISUAL TENSION:</b> The roof is a low-sloped gable	<b>HIERARCHY:</b> Two-level; one dominant and two subsidiary forms created by depth of volume <b>FOCAL POINT:</b> Strong focal point created by symmetry and foot traffic to and from the entry door <b>VISUAL TENSION:</b> Low visual tension and dynamism as only the roof slope creates a slanted line	<b>ORIENTATION:</b> Building facade faces Southwest towards a wide expanse of open green space. In front of the capitol is also a wide road with a designated drop-off point at the center aligned to the entrance. <b>POSITION:</b> Solitary central position in a horizontal space <b>SEQUENCE:</b> From the wide space, to a semi-open public entrance, to a lobby, to a narrower corridor.	<b>ORIENTATION:</b> Full forward frontage <b>POSITION:</b> Median position for maximum visual exposure and display <b>SEQUENCE:</b> Funneling (Wide Space of the Grounds to a Narrow Corridor)

**FIGURE 6** The visual quality of the capitol was analyzed by describing the geometry and configuration of building components

*Phase 3: Form Perception.* Human sensory receptors continuously gather information from external stimuli, but it is ultimately how one perceives them that creates meaning and affects how one interact with them. Perceptual processes are built from sensory input (bottom-up processing) and involve organization, interpretation, and the conscious experience of the sensations (Goldstein 1996; Heffner, n.d.).

The way the human mind organizes visual information can be explained by gestalt phenomena, which suggests that the mind tends to simplify objects into an organized and coherent whole (Hansen 1989; Puhalla 2011; Wertheimer 2017). The mind does this simplification to all types of stimuli to perceive or understand the environment, a process that then allows it to create memory (Dajose 2019; Prinz and Bridgeman 1996).

Not all sensations result in perception, but the visual qualities of the capitols have gestalt properties that make them easily perceivable. First, the design has perfect symmetry created by the strong focal point, undeviating vertical and horizontal building elements, and a balanced number of components on each side of this robust center. Elements that are parallel or congruent with axial lines achieve a collective sense of visual harmony (Puhalla 2011). Second, the proximity of the form is created by the regular spacing between columns, windows, and moldings, which are located not more than 5 m apart. This nearness easily allows one element to be visually related to the next component. Third, there is a high degree of similarity in the repeated elements, usually using only one type of window, door, and columns in the facade. Similar details aid in understanding the object. Fourth, full closure is created by the clear floor area and the introvertedness of the building. There are no secondary spaces like open verandas or balconies to dissolve interior-exterior separation, except for the entrance area. There are vertical walls fully enclosing the interior spaces and, thus, accentuating the building's silhouette. Lastly, the capitol as the sole monumental multilevel figure in the landscape stands in stark contrast against the green flat ground surface. This abrupt change in massing makes the figure more noticeable.

The type of symmetry, proximity, similarity, closure, and figure-ground contrast of the capitol's design contributed to easily understanding the wholeness of the form. The lack of diagonal lines, acute angles, juxtaposed columns, or irregular shapes create low visual tension, which allows the silhouette to be mentally generated easily (Puhalla 2011). The overall general form of the capitol, then, is a two-storey wide horizontal mass with a central secondary structure terminated above by a dominant roof structure and located on a vast open plain. Specific features differed among the capitol designs, but this general form and gestalt properties, to some extent, determined a sense of order that facilitates recognition and perception.

The capitols' design, introduced by the Americans, is heavily related to Classical architecture, which was designed to express beauty through calculated proportions like the nine square pattern. This pattern consists of a  $3 \times 3$  grid, with a centralized space (the middle square) surrounded by an exterior zone. Ruggles (2018) explained that this nine square proportion is an intrinsic pattern present in the forms of nature, the human face, and historical buildings across different cultures—generating the effect of recognition. The human mind tends to be drawn to these ordered patterns intuitively and easily recognizes it in an object.

Psarra (2009) reasoned that such order in geometry and configuration enhances unity in visual experience. However, while buildings with high levels of visual unity can be recognized as “beautiful,” they tend to reduce spatial exploration and observer participation (Puhalla 2011; Meiss 2013). This unified design may encourage aloofness, impersonal awe, or what Dovey (2014) calls the encompassing distant “gaze.” This design, termed as “carpentered world” popular in Western cultures like America, tends to produce various visual illusions, like the Muller-Lyer illusion, where people do not easily perceive differences in height but see all lines as elongating upward. This has not been observed in cultures like the Zulu tribe of South Africa where the dominant forms are circular and curvilinear (Segall et al. 1966).

This shows that objects sensed as stimuli are not neutral and requires associations to available information in order for people to perceive them.

For example, Hillier (1999) argued that the enclosure of a space creates not just a physical distinction between surfaces of the earth, but also categorical distinctions. He explained that physical boundaries can also mean sociological boundaries, such that a vertical wall set in a space is not just a way to enclose the floor area but also to segregate people according to a preexisting standard.

This suggests that the perceptual meanings built upon and generated by the form can be attributed with conceptual meanings from other external sources. These external meanings can be appropriated by a person's motivation, values, life experience, and cultural influences (Goldstein 1996; Prinz and Bridgeman 1996; Charney 2007). In this study, the specific conceptual meaning attributed to a capitol's form is the motivation of figures in government to display power. As explained, forms that have a high level of visual unity tend to reduce invitation to participate and encourage aloofness. These may actually be the intended effect consistent with the motivation to subjugate.

*Phase 4: Meaning Mediation.* To appreciate the conceptual meanings of the capitol and the effect of these structures on the residents, it must be emphasized that the designs of the capitols were extremely novel in their geographical context. This novelty might have produced a pleasing mental shock as the structures contrast with everything in the landscape such as farms, huts, two-storey wooden houses, and stone churches. This uniqueness in form invites the observer to gaze at the object but not necessarily to approach and explore it (Meiss 2013). The effect to the observer is not of invitation but awe, perhaps an expected reaction if these structures should be tools to display power.

To understand how power is connected to these specific buildings, an external framework (Dovey 2014) is used in the analysis of form. Indeed, the design of the capitol has features that are consistent with the qualities of power and how it is expressed (Figure 7).


First, the *dominance* of the form of the capitols can be related to the stark contrast between their monumental scale against a background of wide

lawns. This surrounding "excess space" signifies control by restricting construction and assigning reserved spaces to specific persons, which can be considered underutilization of space with economic potential. *Docility* can be related to the visual clarity exuded by the symmetrical facade with the center as a clear entry point. This property gives unimpeded visual cues because people intuitively know where the center is as opposed to locating a door off-center or designating multiple entrances. The entry is usually highlighted by full-height columns, stairways, extruded pediment, or cantilever canopies. All these design features help to emphasize the importance of this focal point. Only the entryway at the center is linked to a path walk. There are no surrounding open verandas or porches, which further clarifies control.

*Stability* can be related to the holistic inclusive rectangular form, which creates complete visual attachment of the building form to the ground. This visual footing can signal immobility and permanence of the structure, and therefore predictability of the activities, and operations of the people and offices inside it. *Segregation* is related to full-height demarcating walls, dissimilar wall finishes, the narrow width of the corridor, and the strategic location of interior doors. *Access* is also related to the proximity of an office to the traffic of people. The office of the governor is located at the upper floors and at the middle or farthest side of the wing where access is made difficult due to its inconspicuousness, which is achieved through the use of transition lobbies that are separated by multiple door enclosures or recessed spaces. There are also private and restricted emergency exits out of the public's view. Access is unidirectional and highly monitored. *Authenticity* can be related to the use of wall patterns and motifs representative of the place's culture, festivity, food, and arts. This vernacularization (Cabalfin 2016) enhances relatability and familiarity among the residents.

The design of the capitol also has features that are consistent with how power is exercised. Power by *force*—an overt display of control where the subject has no choice but compliance—is exemplified by preventing access. The use of nontransparent fully closed walls, locked doors, singular entrance for monitoring, dedicated areas for public seating, and narrow directional



<b>DOMINANCE/ DOCILITY</b>	<b>STABILITY/ DYNAMISM</b>	<b>ORIENTATION/ DISORIENTATION</b>	<b>SEGREGATION/ ACCESS</b>	<b>PUBLICITY/ PRIVACY</b>	<b>AUTHENTICITY/ FRAUD</b>
control over resources and manpower	illusions of progress and permanence	clarity and ambiguity of direction	privileged enclaves and regulated access	strategies for seclusion or promotion	projection of associa- tive character
					
Manipulation by spatial domination through exaggerated scale and circular shape of the canopy in front	Imposing on visual perception by the thick buttress flanking the entrance suggesting stability	Imposing a strong sense of orientation by the forward terminations of both auxiliary wings forming a V-shape plan	Restricting vehicular traffic through signages to communicate no entry points, or reserved parking spaces	Securing windows through the elevated floor of an exterior hallway lined with steel railings and thick bushes	Seduction of memories through the depiction of historical figures located in a highly visible public area
					
Regulating perception through emphasis on the scale difference of columns and panolong (beams) with the human height	Implying financial capacities by use of more expensive aluminum cladding rather than paint to cover facade walls	Ordering visual clarity by alignment of entrance, stairway and long avenue lined with similar verdant trees	Visually modulating traffic and entry through a massive porte-cochere in front of the entrance door	Suggesting surveillance by an overhead watchtower lined with dark windows, and capped with a conspicuous dome	Symbolisms by the use of distinctive details on the buildings, like these rings to mean perpetuity
					
Visual signal to mindfully approach building entry through unsupported overhang and defined columns	Suggesting wealth and dynamic culture by use of articulated roof, columns, and massive vertical bays on both sides	Clarifying the narrow single entrance by the manicured colorful landscaping and pathways leading to the extruded lobby	Controlling access to the main entrance by a multi-flight stairway finished in dark material for emphasis	Complete separation of private offices (interior rooms) and outdoor waiting areas designated for public use	Evoking memories through depictions of themes, like the stencils carved to show local cultures and traditions
					
Forcing foot and vehicular traffic speed by elevated driveway and two- landing stairway leading to the entry	Legitimizing Authority by inspiring a societal truth, through visible engraved "In God We Trust" slogan on the facade	Separation of exterior and interior spaces by an elevated shallow extended lobby lined with massive columns	Segregating interior and exterior domains by a circular symmetrical deep entrance porch lined with columns	Dividing public and private spaces by sharp contrast between the lush exterior and dark-colored volumes	Fostering familiarity and ownership by the use of patterns from endemic prints to decorate building surfaces

**FIGURE 7** How physical components and features of the capitol express the physical qualities of power

corridors force subjects to move about the space in a certain way. The goal is to enforce a certain spatial abundance of segregated access.

*Coercion*—latent force with implied sanctions—is exemplified by the stationing of security personnel, use of monuments in memory of a hero or a revolt, signs to inform government fines, as well as the use of two-storey-high monumental columns, exaggerated size of the roof, and elevation through stairways to clearly impress its disparity with the human size and signify the power and resources necessary to erect the building.

*Manipulation*—acquiring willing compliance—is exemplified by using one-way glass windows where the public cannot see the officer on the other side, use of numbered queuing, surveillance by cameras, and zoning of spaces to inhibit a sense of orientation to obscure the real location of the governor's office or conference rooms, surveillance room, and other covert spaces.

*Seduction*—the construction of desires and ideals—is exemplified by displaying familiar motifs, images of year-round festivals, and proposed infrastructure projects, suggesting relatability, familiarity, and progress to its users.

Lastly, *authority*—affirmation characterized by absence of argument—is communicated by images depicting public service and public interest such as in-action portraits of politicians serving the public, visionary murals or slogans posted on walls, open wide spaces to accommodate crowds, and location of frontline offices in the most accessible portions of the building, all to suggest agreeability and support.

The process of attributing the capitol as a symbol of power started with the engagement of the people with the object, either by physical experience or a visual proxy (picture, video, print). Meaning cannot exist apart from this primary engagement (Smagorinsky 2001). The visual input functions as a stimulus to facilitate sensation (DiCarlo et al. 2012). Because the brain constructs the whole (gestalt) rather than individual forms, even if the perspective view is changed, the mind can still recognize the object. These whole forms are perceived and stored in the brain as semantic (general) memory. Meanings are, then, attached to these memories in a transactional zone where the

brain tries to find similar or related information (Smagorinsky 2001; Dajose 2019). A consolidated memory is one already assigned with a meaning (DiCarlo et al. 2012). The constructed conceptual meaning has various sources, and among which, culture is the most predominant. Meaning exists within and as a result of interaction in a social group (Shuv-Ami and Bareket-Bojmel 2020).

*Phase 5: Meaning Endowment.* The design of the capitols was described previously by an external theoretical understanding of power. However, meaning must also emanate or lead to a general consciousness of the people subjected to the object. In this last phase, the perception of 120 randomly selected residents on the capitols was elicited through a concise survey. Results were correlated with the analysis of form to validate if the residents are aware of the probable motives of the design and assess their level of compliance and agreement to what a government stands for. The results show how the survey participants view the social, historical, cultural, emotional, physical, conceptual, and behavioral influences of the provincial buildings, including the metaphors they attribute to the provincial capitols (Table 2).

The residents highly agree that the capitols have strict government functions; have identity; are highly perceptible, dynamic, and coherent; and are exclusive, formal, and idealistic. The residents describe the capitol as a distant government center, usually with connotations of greater wealth than the city and greater potential power to create greater good for the public. The results also showed that the residents do not agree (low-level agreement) that capitols have external influences, evoke inferiority, are common buildings, are socially active spaces, and induce negotiable etiquette. But notably, the capitol was not seen as oppressive though the residents described the capitol as distant.

The association of being “formal, strict, and idealistic” may be attributed to the lack of social activities held in the capitol periodically. For example, there are few or no regular festivities, rallies, vigils, or public celebratory events held on the capitol grounds. This lack of regular communal activities may be related to the fact that provinces administer several cities. Local festivities and activities are usually city-

**TABLE 2** Perception of the residents (n = 120) towards the provincial capitol buildings

Aspects of influences	Description (Klassen 1980)	Rating	Level of agreement
SOCIAL The capitol towards its people	The capitol strictly has governmental functions only.	4.79	Very High
	Aside from formal functions, the capitol provides leisure and entertainment.	1.57	Low
HISTORICAL The capitol and its history	The history relating to capitols is significantly remembered.	3.34	Moderate
	The history relating to capitols is forgotten.	3.25	Moderate
CULTURAL The capitol and its people's habits, beliefs, and traditions	The capitol design has identity.	4.67	High
	The capitol design has other external influences.	2.46	Low
EMOTIONAL The capitol and the feelings it evokes	The capitol evokes a feeling of inferiority.	2.19	Low
	The capitol is passive.	3.20	Moderate
PHYSICAL The capitol and its physical attributes	The capitol design is highly perceptible and coherent.	4.55	Very High
	The capitol is a common building.	2.05	Low
CONCEPTUAL The capitol and the different connotations it evokes	The capitol is exclusive, formal, and idealistic.	4.07	High
	The capitol is a socially active space.	1.43	Very Low
BEHAVIORAL The capitol and the actions it influences or dictates	The presence of the capitol dictates behavior inside its premises.	3.56	High
	The capitol induces a welcoming and nonstrict etiquette.	2.22	Low

wide rather than provincial-wide celebrations. Another interesting reason why capitols may not be as connected to the public like the municipal or city halls is the fact that its location is more impermanent. The provincial capitol can be built in any municipality or city within the province, but in most cases, it is located in the capital. In the event that regrouping or division from the mother province occurs, a new capital can be declared by the provincial board members. The former capital is demoted to a member municipality and another capitol has to be built in the newly declared capital.

However, provincial government buildings are generally larger and more stylized than the city halls, which may signal the wider breadth in administrative scope but is also a testament to the governor's political prowess to marshal vast resources and manpower to erect a new provincial capitol. Dovey (2014) may explain the political necessity of this more extravagant design of the capitols with an irony: "the more fragile the power, the more legitimization is needed

through repeated rituals, pompous declarations and massive building of places." Two reasons can be related to this. The provincial capitols do not have a fixed location like the city hall or the office of the president. The governor can come from any of the cities belonging to that province. In the government structure, the elected provincial governor has the liberty to choose or influence where to build the provincial capitol, which is legislated through local ordinances; and usually, it will be a massive structure built in the area where the official is from.

The construction of provincial government centers is funded from the national treasury. Each local government unit, including the province, is allocated with a budget called the internal revenue allotment, which is a unit's share of the national wealth. When national funding is allocated, it is within the power of the governor to allocate these funds according to a submitted budget. However, before this policy-based disbursement, local funding is based on requests, which means the approval of projects largely depends on



the politician making the proposals, further demonstrating the political powers of the governor. This may also explain why most of the eighteen capitols were designed according to the popular style *preferred* by the governor, perhaps with only general consultation, and at a scale larger than comparable government buildings.

While the final design of the capitol is dictated by the governor or the provincial board members, the semiological analysis shows that each member of the political constituency may attribute different concepts of power to the capitol. However, through different modes of communication and repeated exposure, the group may form a collective metaphor describing the group's consciousness, identity, and shared experience. In general, the collective meanings associated to the capitol buildings by the public can be divided into three concepts: (1) nature of power, (2) place of power, and (3) the metaphor for social identity.

Provincial capitol buildings symbolize the nature of the government's power as service to the people, leadership, authority, governance, administration, wealth, protection, security, empowerment, and corruption. The capitols are necessary buildings because its power is understood by the public as a place of governance (where politicians' offices are located), point of services (where allotments are given to the public), the center of government (may mean a larger entity than the city government), and exclusive building (where to be welcome, one must fulfill several criteria such as attire, behavior, identification, and specific transaction). However, even with the strict, formal, and idealistic character impressed to the public, the capitol was still viewed as a symbol of "our province," "our country," equality, and public interest, which all reflect a positive collective identity.

What the positive collective meanings suggest is that the public accepts governance and expresses this by their compliance to the rules, agreement to its function, regulation of behavior, memorizing functions, and recognizing the capitol as a symbol of "our province" (Bisaya: "*among probinsya*") (Figure 8). The use of the word "our" reveals a sense of ownership, which is a good indicator of the high value they attribute to the capitol as a

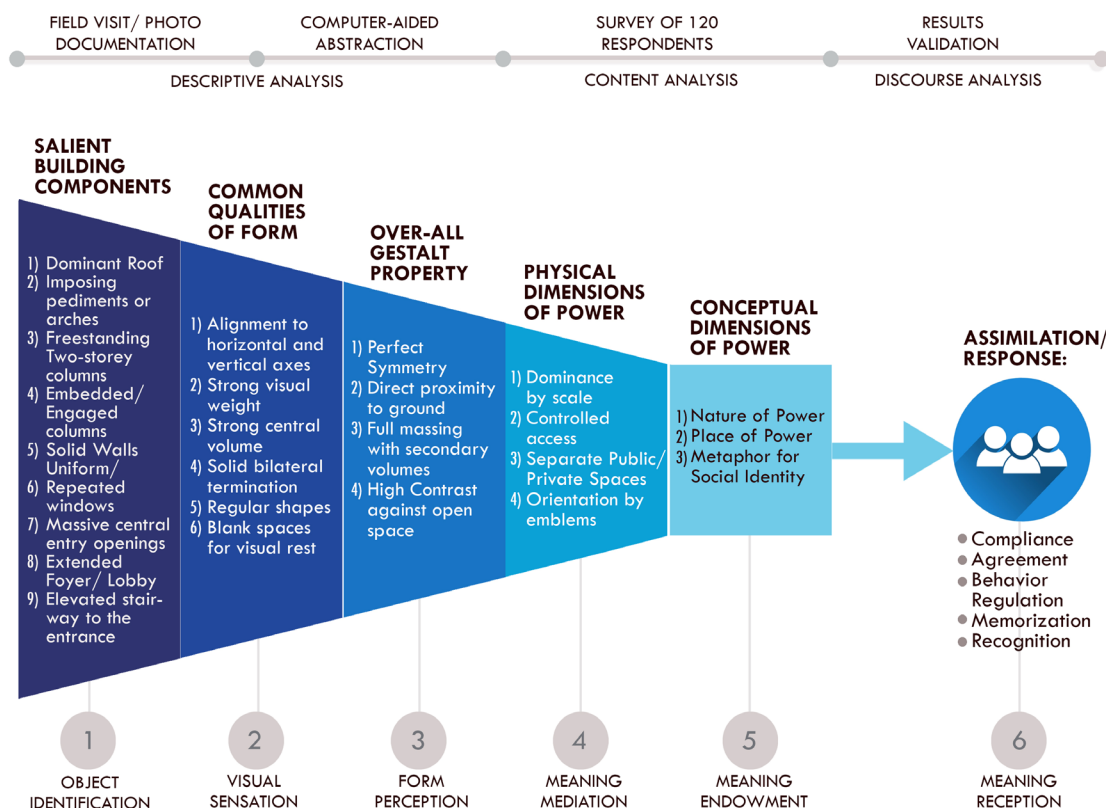
metaphor for their social identity (Pierce et al. 2003; Peck et al. 2013; Boykov 2013).

These results can also indicate the strong mental foothold of the first politicians during the American period to "win hearts and minds" by positive approaches rather than militaristic forces. Throughout the long colonization in Philippine history, positive rather than oppressive memories are attached to these provincial capitols, which may indicate high public trust. Brody (2001), on the other hand, called this positive perception as "post-colonial amnesia" of the Filipinos who forgot the tumultuous bloodshed of the Philippine-American War.

It is also worth noting that it was during the American colonial period that social disparity created the self-proclaimed "Filipino elites" who rose to economic and political eminence by self-aggrandizement, land acquisitions, and crop production (Yamaguchi 2006). And while some incumbent officials still come from political dynasties of landed oligarchs, the Filipino mentality of choosing a local strongman (like the *datu*) to become a leader is evident in the sympathetic responses to local officials, who are expected to provide a better state of life for the citizens. In other words, the governor still functions very much like a *patron*, displaying capacities to provide for the needs of the masses as a *benefactor*, and in turn, the latter pays tribute through suffrage to the rule of the other in power.

## Conclusions and Recommendations

This study has supplemented the lack of academic sources on Mindanao heritage architecture by documenting the architectural design and historical background of eighteen provincial capitols built in the 1990s up to the present. The historical significance of these buildings as places of governance are as follows: (1) they are the physical manifestation of the evolution of styles in Philippine public architecture, (2) they have endured different generational cycles of government, and (3) they are recognized as part of the shared consciousness and group identity of Filipino society.



**FIGURE 8** Salient results from the semiological analysis

As government buildings, these capitols legitimized the exercise of power, and the present meanings were investigated through a five-phase semiological process. This analytical tool elaborated on the process of *how* buildings convey meanings, not just *what* meanings they express. The results of the analysis demonstrated the multidimensionality of semiology as a field of inquiry and its relevance to architectural studies. The uniqueness of this approach is that it shows, in a single continuum, the various domains involved in transcending abstract and tangible realities: from the basic neurological process (sensing stimuli) to perceptual processes (understanding forms), psychological processes (memory creation), and semiological process (meaning construction).

The form of the capitol exists differently from the domestic space in terms of materials, dimensions, color, and many other characteristics. This difference from everyday experience creates

a uniqueness that makes the form memorable, and the rarity and location of this object makes it a useful landmark or point of reference. While the capitol's design differs from everyday life locally, this form has been widely used elsewhere for government offices, which can be termed as repetitive historical association. Meanings and codes may change and vary, but the general value of the semiological method in this study is the exercise of tracing what elements of the built form contribute to certain meanings, experiences, or identity. This is invaluable in architectural design as a guide to create spaces that are responsive, sensitive, and highly suitable for the needs of its end users.

The capitol was also analyzed as a tool in the discourse of power legitimization in Philippine society. The discussion on how form expresses power was foregrounded on the hypothesis that, in general, architectural design is aimed at gaining agreement rather than contestation from its users.



Ideally, the architect aims to follow the functional, formal, and sociocultural requirements in order to serve client and user needs, which may not always be aligned and thus create a tension in the programmatic needs of a building. But as far as can be gleaned from the interviews, the capitol seemed to still be a source of agreement from the citizens.

Today, these capitols embody two notions of power as elicited from the survey. First, power can be a fragile privilege of a few people, which necessitates the regular justification of its existence and the continuous legitimization of its need for control. Monumental structures are arguably the most enduring tools to make this power visible. Second, and perhaps more importantly, much of the strength of this power is dependent on the general agreement of the governed people, for the lack thereof may lead to insurrection, civil disobedience, and, at its worst, anarchy. Despite negative opinion that the capitol is a place of corruption or greed due to tax collections, the present general perception remains mainly positive, which implies a high level of public trust attributed to local governance as symbolized by these provincial capitols. Since this study has focused on analyzing the form of the capitol and the process of *how*, rather than *what*, meaning is generated, it admittedly has not explored the dynamics of power in these buildings as lived spaces, which can be noteworthy as a separate inquiry.

The results of this study can be useful in locally legislating an ordinance for the protection, preservation, and conservation of these capitol buildings. Relevant local ordinances on land use can also be written to preserve their vistas and surrounding open spaces. These local laws can provide an impetus for recognizing these buildings as national treasures. This study can also serve as a reference for future documentation, conservation, and adaptive reuse projects. This historical inventory can also be included as a topic in basic and secondary-level history subjects.

Other historical narratives can be collected to enrich the present understanding of Mindanao

in terms of power discourse, or of sociological evolution. Since this study focused on the facade, future studies can be done to analyze how power is exercised in the interior space through space syntax analysis. The semiological approach can also be applied to analyze the form and meanings of the nine capitol buildings not accessed in this study, as well as city halls, municipal halls, local and other national government offices.

## Note

The appendix is available for download at: <http://ojs.upmin.edu.ph/index.php/banwa-a/article/view/484/719>

## Acknowledgment

This paper is an expansion of the undergraduate thesis of MI Santos for a degree in BS Architecture at the University of the Philippines Mindanao, completed in 2015, of which NLN Pernes is the adviser. NLN Pernes revisited the research problem; reworked the objectives, theoretical framework, and methodology; validated and gathered additional data; and crafted a multidisciplinary semiological approach to analyze the data.

The authors are indebted to the local officials who granted access to the capitol buildings and archives and allowed to have key informants interviewed; to the software operators who extracted the two-dimensional images from the pictures and secondary documents; to the anonymous peer reviewers, and generous colleagues—Prof. Jean Marie V. Juanga, PhD, and the editors and staff of the journal—who helped in polishing this publication.

This study was previously presented during the “Pag-aboll: Facets of Mindanao” National Research Conference held last 8 November 2019 in Davao City, Philippines.

## References

- ALARCÓN, NORMA. 2008. *The Imperial Tapestry: American Colonial Architecture in the Philippines*. Manila: University of Santo Tomas Publishing House.
- ALCAZAREN, PAULO. 2000. "The American Influence on the Urbanism and Architecture of Manila (1898-1952)." MA thesis, National University of Singapore.
- ALCARAZEN, PAULO, JEREMY BARNS, AND MANUEL L. QUEZON III. 2005. *Malacañan Palace: The Official Illustrated History*. Manila: Studio 5 Publishing.
- ARCHER, JOHN. 2005. "Social Theory of Space: Architecture and the Production of Self, Culture, and Society." *Journal of the Society of Architectural Historians* 64, no. 4: 430-433. <https://doi.org/10.2307/25068197>.
- ARENDT, HANNAH. 1986. "Communicative Power." In *Power*, edited by Steven Lukes, 65. Oxford: Blackwell.
- ATKINSON, ROWLAND, SIMON PARKER, AND ROGER BURROWS. 2017. "Elite Formation, Power, and Space in Contemporary London." *Theory, Culture, and Society* 34: 179-200. [journals.sagepub.com/home/tcs](http://journals.sagepub.com/home/tcs).
- BOYKOV, GRIGOR. 2013. "Architecture as a Symbol of Power: Some Thoughts on the Ottoman Architectural Heritage of Plovdiv." In *Power and Influence in South Eastern Europe*, edited by Maria Baramova, Plamen Mitev, and Ivan Parvev. Zurich and Berlin: Strange Chemistry.
- BRILLANTES, ALEX JR., AND MARICEL FERNÁNDEZ. 2011. "Restoring Trust and Building Integrity in Government: Issues and Concerns in the Philippines and Areas for Reform." *International Public Management Review* 12, no. 2: 55-80. <https://journals.sfu.ca/ipmr/index.php/ipmr/article/viewFile/102/102>.
- BRODY, DAVID ERIC. 2001. "Building Empire: Architecture and American Imperialism in the Philippines." *Journal of Asian American* 4, no. 2: 123-145. <https://doi.org/10.1353/jaas.2001.0013>.
- CABALFIN, EDSON ROY. 2003. "Art Deco Filipino: Power, Politics, and Ideology in Philippines Art Deco Architectures (1928-1941)." PhD diss., University of Cincinnati.
- CABALFIN, EDSON ROY. 2005. "Modernizing the Native: The Vernacular and the Nation in Philippine Modern Architectures." *Docomomo* 42: 34-41.
- CABALFIN, EDSON ROY. 2016. "Conquest and Resistance: Intersections of Colonialism and Modernity in Twentieth-Century Philippine Architectures." *Journal of Southeast Asian Architecture* 13: 62-73.
- CHAPMAN, MICHAEL, MICHAEL OSTWALD, AND CHRIS TUCKER. 2004. "Semiotics, Interpretation, and Political Resistance in Architecture." Paper presented at the 38th International Conference of Architectural Science Association ANZAScA 2004, Launceston, Tasmania, 10-12 November 2004.
- CHARNEY, IGAL. 2007. "The Politics of Design: Architecture, Tall Buildings and the Skyline of Central London." *Area* 39, no. 2: 195-205. <https://doi.org/10.1111/j.1475-4762.2007.00741.x>.
- CHING, FRANCIS D.K., MARK M. JARZOMBK, AND VIKRAMADITYA PRAKASH. 2017. *A Global History of Architecture*. Hoboken, New Jersey: John Wiley & Sons.
- COALDRAKE, WILLIAM H. 1996. *Architecture and Authority in Japan*. New York: Routledge.
- COLE, FAY-COOPER. 1913. "The Wild Tribes of Davao District, Mindanao." *Anthropological Series* 12, no. 2. Chicago: Field Museum of Natural History.
- CULTURAL CENTER OF THE PHILIPPINES (CCP). 2017. *CCP Encyclopedia of Philippine Art* [Computer File]. [Richmond, B.C.]: Distributed Processing Systems.
- DAJOSE, LORI. 2019. "How Memories Form and Fade." California Institute of Technology. Accessed 07 July 2020. <https://www.caltech.edu/about/news/how-memories-form-and-fade>.
- DICARLO, JAMES J., DAVIDE ZOCCOLAN, AND NICOLE C. RUST. 2012. "How Does the Brain Solve Visual Object Recognition?" *Neuron* 73, no. 3: 415-434. <https://doi.org/10.1016/j.neuron.2012.01.010>.
- DOVEY, KIM. 2014. *Framing Places*. London: Routledge.
- DOVEY, KIM. 2018. "Architecture, Power, and Parliament: How Do Buildings Shape Politics?" Paper presented at a lecture in the Senate Occasional Lecture Series at Parliament House, Canberra, Australia, 11 May 2018.

- GARVAN, JOHN M. 1931. "The Manóbos of Mindanao." Washington: U.S. Government Print Office. <https://pdfs.semanticscholar.org/ef3f/2db9c79c7aed82b40224978a6f33e97786b5.pdf>.
- GO, JULIAN. 2008. *American Empire and the Politics of Meaning*. Durham, North Carolina: Duke University Press.
- GOHARIPOUR, HAMED. 2011. "Evaluation of Urban Management Performance Based on Citizen Satisfaction with Municipal Services in the City of Tehran." Paper presented at The IEEE International Conference on Social Science and Humanity, Singapore, 26–28 February 2011.
- GOHARIPOUR, HAMED. 2019. "Narratives of a Lost Space: A Semiotic Analysis of Central Courtyards in Iranian Cinema." *Frontiers of Architectural Research* 8, no. 2: 164–74. <https://doi.org/10.1016/j.foar.2019.01.004>.
- GOLDSTEIN, E. BRUCE. 1996. *Sensation and Perception*. Pacific Grove, CA: Brooks/Cole Pub.
- HALE, JONATHAN A. 2000. *Building Ideas*. London: Wiley.
- HANSEN, JAMES. 1989. "Order and Structure in Urban Design: The Plans for the Rebuilding of London after the Great Fire of 1666." *Ekistics* 56: 22–42.
- HEFFNER, CHRISTOPHER. N.D. "Psychology: Sensation and Perception." Posted in AllPsych Online. Accessed July 10, 2020. [https://allpsych.com/psychology101/sensation\\_perception/sensation/](https://allpsych.com/psychology101/sensation_perception/sensation/)
- HILLIER, BILL. 1999. *Space Is the Machine: A Configurational Theory of Architecture*. Cambridge: Cambridge University Press.
- HINES, THOMAS. 1972. "The Imperial Façade: Daniel H. Burnham and American Architectural Planning in the Philippines." *Pacific Historical Review* 41, no. 1: 35–53. <https://doi.org/10.2307/3638224>.
- HOTEIT, AIDA. 2015. "Deconstructivism: Translation from Philosophy to Architecture." *Canadian Social Science* 11, no. 7: 117–129. <https://doi.org/10.3968/7240>.
- ISAAC, JEFFREY C. 1987. "Beyond the Three Faces of Power: A Realist Critique." *Polity* 20, no. 1: 4–31. <https://doi.org/10.2307/3234935>.
- JAINAL, TUWAN IKLALI, GERARD RIXHON, AND DAVID RUPPERT. 1972. "Housebuilding among the Tausug." *Sulu Studies* 1. Jolo, 81–121.
- JOCANO, F. LANDA. 1998. *Anthropology of the Filipino People: Filipino Value System*. Metro Manila: PUNLAD Research House.
- JUODINYTĖ-KUZNETSOVA, KRISTINA. 2011. "Architecture Space and Greimassian Semiotic." *Societal Studies* 3, no. 4: 1269–1280. <https://www3.mruni.eu/ojs/societal-studies/article/view/778/o>.
- KIRUTHIGA, KANDASAMY, AND KESAVAPERUMAL THIRUMARAN. 2017. "Visual Perception on the Architectural Elements of the Built Heritage of a Historic Temple Town: A Case Study of Kumbakonam, India." *Frontiers of Architectural Research* 6, no. 1: 96–107. <https://doi.org/10.1016/j.foar.2016.10.002>.
- KLASSEN, WINAND W. 1980. *History of Western Architecture*. Cebu City: University of San Carlos.
- LAMBERT, LÉOPOLD. 2013. "Foucault and Architecture: The Encounter That Never Was." *The Funambulist Pamphlets*, volume 2: Foucault, edited by Léopold Lambert. California: Punctum Books. <https://doi.org/10.21983/P3.0034.1.00>.
- LICO, GERARD. 2003. *Edifice Complex: Power, Myth, and Marcos State Architecture*. Quezon City: Ateneo University Press.
- LICO, GERARD. 2008. *Arkitekturang Filipino*. Quezon City: University of the Philippines Press.
- LICO, GERARD. 2017. "Rising from of the Ashes: Post-War Philippines Architecture." *Docomomo* 57: 46–55.
- LUKES, STEVEN. 1974. *Power: A Radical View*. London: Macmillan Education UK. <https://doi.org/10.1007/978-1-349-02248-9>.
- LUKKEN, GERARD, AND MARK SEARLE. 1993. *Semiotics and Church Architecture Applying the Semiotics of A.J. Greimas and the Paris School to the Analysis of Church Buildings*. Kampen, The Netherlands: Kok Pharos Publishing House.
- MADALE, ABDULLAH T. 1997. *The Maranaws: Dwellers of the Lake*. Quezon City: Rex Bookstore Inc.

- MATA, RENE LUIS. 2009. "Heritage Conservation: Applying Scientific Method in Architecture the Lingayen Capitol Building (1918)." *Muhon: A Journal of Architecture, Landscape Architecture, and the Designed Environment* 3: 28–37.
- McFERNON, HAZEL M. 2002. *Mixed Blessing: The Impact of the American Colonial Experience on Politics and Society in the Philippines*. Westport, Conn: Greenwood Press.
- MEISS, PIERRE VON. 2013. *Elements of Architecture*. Abingdon, Oxon: Routledge.
- MONNET, JÉRÔME. 2011. "The Symbolism of Place: A Geography of Relationships between Space, Power, and Identity." *Cybergeog European Journal of Geography*, document 562. <https://doi.org/10.4000/cybergeog.24747>.
- MORTON, ADAM DAVID. 2018. "The Architecture of 'Passive Revolution': Society, State, and Space in Modern Mexico." *Journal of Latin American Studies* 50, no. 1: 117–152. <https://doi.org/10.1017/S0022216X17001134>.
- MOSER, SARAH, AND ALYSSA SHAMSA WILBUR. 2017. "Constructing Heritage through State Architecture in Indonesia's Riau Islands." *ABE Journal* 11 (online). <https://journals.openedition.org/abe/3643>.
- OGURA, NOBUYUKI, DAVID LEONIDES, TIMBOL YAP, AND KENICHI TANOUE. 2002. "Modern Architecture in the Philippines and the Quest for Filipino Style." *Journal of Asian Architecture and Building Engineering*. [https://doi.org/10.3130/jaabe.1.2\\_233](https://doi.org/10.3130/jaabe.1.2_233).
- PARSAEE, MOJTABA, MOHAMMAD PARVA, AND BAGHER KARIMI. 2015. "Space and Place Concepts Analysis Based on Semiology Approach in Residential Architecture." *HBRC Journal* 11, no. 3: 368–83. <https://doi.org/10.1016/j.hbrj.2014.07.001>.
- PECK, JOANN, VICTOR A. BARGER, AND ANDREA WEBB. 2013. "In Search of a Surrogate for Touch: The Effect of Haptic Imagery on Perceived Ownership." *Journal of Consumer Psychology* 23, no. 2: 189–96. <https://doi.org/10.1016/j.jcps.2012.09.001>.
- PHARE, DAREN. 2016. "Exploring Representation: A Semiotic Approach to Understanding the Image as a Carrier of Design Meaning in a Collective Design Context." PhD diss., University of Newcastle.
- PIERCE, JON L., TATIANA KOSTOVA, AND KURT T. DIRKS. 2003. "The State of Psychological Ownership: Integrating and Extending a Century of Research." *Review of General Psychology* 7, no. 1: 84–107. <https://doi.org/10.1037/1089-2680.7.1.84>.
- PRED, ALLAN. 2017. "Social Reproduction and the Time-Geography of Everyday Life." In *Theory and Methods*, edited by Chris Philo, 243–60. London: Routledge. <https://doi.org/10.4324/9781315236285-18>.
- PRINZ, WOLFGANG, AND BRUCE BRIDGEMAN. 1996. "Handbook of Perception and Action." London: Academic Press.
- PSARRA, SOPHIA. 2009. *Architecture and Narrative: The Formation of Space and Cultural Meaning*. London: Routledge.
- PUHALLA, DENNIS. 2011. *Design Elements: Form and Space*. Beverly, Massachusetts: Rockport Publishers.
- PYE, LUCIAN W., AND MARY W. PYE. 1985. *Asian Power and Politics: The Cultural Dimensions of Authority*. Cambridge, Mass: Belknap Press.
- RAMZY, NELLY SHAFIK. 2013. "Visual Language in Mamluk Architecture: A Semiotic Analysis of the Funerary Complex of Sultan Qaitbay in Cairo." *Frontiers of Architectural Research* 2, no. 3: 338–53. <https://doi.org/10.1016/j.foar.2013.05.003>.
- RORTY, AMELIE OKSENBERG. 1992. "Power and Powers: A Dialogue Between Buff and Rebuff." In *Rethinking Power*, edited by Thomas Wartenberg, 1–13. New York: State University of New York Press.
- ROUHANA, NADIM N., AND SUSAN T. FISKE. 1995. "Perception of Power, Threat, and Conflict Intensity in Asymmetric Intergroup Conflict." *Journal of Conflict Resolution* 39, no. 1: 49–81. <https://doi.org/10.1177/0022002795039001003>.
- RUGGLES, DONALD. 2018. *Beauty, Neuroscience, and Architecture: Timeless Patterns and Their Impact on Our Well-Being*. United States: Redleaf Press.
- SANTILLAN, CARYN. 2009. "Decoding Architectural Heritage: A Formal Study of the Architecture of Leandro V. Locsin." *Journal of Asian Architecture and Building Engineering* 8, no. 1: 1–6.
- SEGALL, MARSHALL, DONALD CAMPBELL, AND MELVILLE HERSKOVITS. 1966. *The Influence of Culture on Visual Perception*. Indianapolis: Bobbs-Merrill Co.

- SIDEL, JOHN THAYER. 1999. *Capital, Coercion, and Crime: Bossism in the Philippines*. Stanford, Calif.: Stanford University Press.
- SHATKIN, GAVIN. 2005. "Colonial Capital, Modernist Capital, Global Capital: The Changing Political Symbolism of Urban Space in Metro Manila, the Philippines." *Pacific Affairs* 78, no. 4: 577–600. [www.jstor.org/stable/40022969](http://www.jstor.org/stable/40022969).
- SHUV-AMI, AVICHAJ, AND LIAD BAREKET-BOJMEJ. 2020. "What Indicates Your Life Is Meaningful? A New Measure for the Indicators of Meaning in Life (3IML)." *Journal of Happiness Studies*, 5 March 2020. <https://doi.org/10.1007/s10902-020-00244-6>.
- SMAGORINSKY, PETER. 2001. "If Meaning is Constructed, What Is It Made From? Toward a Cultural Theory of Reading." *Review of Educational Research* 71, no. 1: 133–169. <https://doi.org/10.3102/00346543071001133>.
- TASHEVA, STELA. 2012. "Semiotics of Architectural Graphics. Institute of Art Studies." PhD diss., Bulgarian Academy of Sciences.
- TSCHUMI, BERNARD. 1994. *Architecture and Disjunction*. Cambridge, Mass: MIT Press.
- UNWIN, SIMON. 2002. *Analysing Architecture*. London and New York: Routledge.
- VILLANUEVA, MARC EDELBERT, MARIA LIEZEL CAROCHE, AND MICAH ANI RAMIREZ. 2019. "Impact of Office Design on Satisfaction of Government Angelo Employees in Laguna Provincial Capitol, Philippines." *AHFE 2018: Advances in Intelligent Systems and Computing* 792: 398–408. [https://doi.org/10.1007/978-3-319-94000-7\\_40](https://doi.org/10.1007/978-3-319-94000-7_40).
- VOZNIAK, EKATERINA, AND ANDREY BUTYRIN. 2019. "Classification of Historical Buildings Façade's Details on the Basis of Order Theory." Presented in the *Topical Problems of Architecture, Civil Engineering, and Environmental Economics Web Conferences* (TPACEE 2018), edited by A. Zheltenkov. In *E3S Web of Conferences* 91. <https://doi.org/10.1051/e3sconf/20199105016>.
- WERTHEIMER, MAX. 2017. "Untersuchungen Zur Lehre von Der Gestalt (Investigations in Gestalt Theory: II. Laws of Organization in Perceptual Forms)." *Gestalt Theory* 39, no. 1: 79–89. <https://doi.org/10.1515/gth-2017-0007>.
- YAMAGUCHI, KIYOKO. 2006. "The New 'American' Houses in the Colonial Philippines and the Rise of the Urban Filipino Elite." *Philippine Studies* 54, no. 3: 412–451. <https://www.jstor.org/stable/42633879>.
- ZIELENIEC, ANDRZEJ. 2018. "Lefebvre's Politics of Space: Planning the Urban as Oeuvre." *Urban Planning* 3, no. 3: 5–15. <https://doi.org/10.17645/up.v3i3.1343>.



Erratum

The corresponding author has communicated with the publisher on 13 August 2020 to request for the correction of the publication record, specifically Table 2 that appeared in page 22 of the article entitled “Architectural Form and Meaning: Analyzing Perceptual Cues of Power in the Design of Provincial Capitol Buildings in Mindanao, Southern Philippines.” The values reported in the table were from the original perception survey conducted by MIP Santos for her undergraduate thesis, which used an instrument with 10 questions per aspect of influence given to 36 individuals that she met during the fieldwork. The data that is now reflected in the revised table is from the validation online survey conducted by NL Narvaez-Pernes, which used an instrument with 2 statements per aspect of influence given to 120 individuals chosen through stratified random sampling. There were also a few minor typographical errors that have been overlooked during the proofreading process. The authors, however, maintain that these corrections do not alter the major results and findings of the study.

ORIGINAL TABLE

**TABLE 2** Perception of the residents (n = 120) towards the provincial capitol buildings

Aspects of influences	Description (Klassen 1980)	Rating	Level of agreement
SOCIAL The capitol towards its people	The capitol strictly has governmental functions only.	3.70	High
	Aside from formal functions, the capitol provides leisure and entertainment.	2.25	Very low
HISTORICAL The capitol and its history	The history relating to capitols is significantly remembered.	3.40	Moderate
	The history relating to capitols is forgotten.	3.45	Moderate
CULTURAL The capitol and its people's habits, beliefs, and traditions	The capitol design has identity.	3.70	High
	The capitol design has other external influences.	3.15	Low
EMOTIONAL The capitol and the feelings it evokes	The capitol evokes a feeling of inferiority.	3.00	Low
	The capitol is passive.	3.50	Moderate
PHYSICAL The capitol and its physical attributes	The capitol design is highly perceptible and coherent.	3.70	High
	The capitol is a common building.	3.20	Low
CONCEPTUAL The capitol and the different connotations it evokes	The capitol is exclusive, formal, and idealistic.	3.65	High
	The capitol is a socially active space.	3.20	Low
BEHAVIORAL The capitol and the actions it influences or dictates	The presence of the capitol dictates behavior inside its premises.	3.40	Moderate
	The capitol induces a welcoming and nonstrict etiquette.	3.15	Low

## REVISED TABLE

**TABLE 2** Perception of the residents (n = 120) towards the provincial capitol buildings

Aspects of influences	Description (Klassen 1980)	Rating	Level of agreement
SOCIAL The capitol towards its people	The capitol strictly has governmental functions only.	4.79	Very High
	Aside from formal functions, the capitol provides leisure and entertainment.	1.57	Low
HISTORICAL The capitol and its history	The history relating to capitols is significantly remembered.	3.34	Moderate
	The history relating to capitols is forgotten.	3.25	Moderate
CULTURAL The capitol and its people's habits, beliefs, and traditions	The capitol design has identity.	4.67	High
	The capitol design has other external influences.	2.46	Low
EMOTIONAL The capitol and the feelings it evokes	The capitol evokes a feeling of inferiority.	2.19	Low
	The capitol is passive.	3.20	Moderate
PHYSICAL The capitol and its physical attributes	The capitol design is highly perceptible and coherent.	4.55	Very High
	The capitol is a common building.	2.05	Low
CONCEPTUAL The capitol and the different connotations it evokes	The capitol is exclusive, formal, and idealistic.	4.07	High
	The capitol is a socially active space.	1.43	Very Low
BEHAVIORAL The capitol and the actions it influences or dictates	The presence of the capitol dictates behavior inside its premises.	3.56	High
	The capitol induces a welcoming and nonstrict etiquette.	2.22	Low