#### A Morphological Study of a City Center in the Northern Philippines

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Abstract. This morphological research investigates the historical evolution and urban fabric of Tuguegarao City Center in the Northern Philippines, with an emphasis on the Poblacion region of Tuguegarao City, Cagayan. The research follows the city's progress from the Spanish Colonial Period to the present day by examining architectural types, store integration with residential dwellings, and the interaction between historic structures and new constructions. The study emphasizes the importance of infrastructure, religious institutions, and educational facilities in constructing Tuguegarao's urban landscape, citing influences from the Spanish, American, and Japanese periods. This research illuminates the city's historical continuity and the issues of heritage protection in a rapidly changing urban setting by exploring the multidimensional mix of socioeconomic, geopolitical, and ecclesiastical components.

Keywords: Urban Fabric, Tuguegarao City, Land Use, Human Settlement, Colonial-Period Planning

#### Introduction

Tuguegarao City, located in the Northern Philippines' Cagayan Valley, exemplifies the enduring legacy of its historical origins as well as the dynamic forces that have molded its urban landscape. This morphological research investigates the evolution of Tuguegarao's Poblacion region, charting its history from the Spanish Colonial Period to the present. This study aims to uncover the rich layers of history contained within the city core by investigating the interaction of architectural styles, urban planning tactics, and socioeconomic effects.

Tuguegarao's urban morphology exhibits a combination of indigenous traditions and colonial legacies, dating back to the early encomiendas of the 1590s and the brief but significant American and Japanese occupations. The study's goal is to untangle the threads of continuity and change that run through the city's streets, buildings, and public spaces, giving light on the elements that have established its distinct identity. By investigating the historical importance of significant locations, the adaptive reuse of heritage structures, and the problems of urban conservation, this study hopes to shed light on Tuguegarao's history, present, and future as a lively hub of cultural heritage and urban life.

### **Materials and Methods**

The morphological study of Tuguegarao City's Poblacion neighborhood was carried out using a multifaceted approach that included historical research, architectural analysis, and urban mapping techniques. The following methods was used to investigate the city's urban development and historical evolution:

**Historical research.** Extensive archive research was carried out to collect historical papers, maps, and records pertaining to Tuguegarao's history, covering the Spanish Colonial Period, American occupation, and post-World War II era. Primary and secondary sources were used to better comprehend the socioeconomic, political, and cultural processes that shaped the city's urban fabric across time. Also, satellite maps using Google Earth Pro were used to construct digital maps of Tuguegarao City, which emphasize the spatial distribution of heritage structures, commercial businesses, and public utilities. Mapping exercises helped to depict the spatial links between various urban features and comprehend the city's morphological change throughout time.

#### **Results and Discussion**

The findings of the morphological study of Tuguegarao City's *Poblacion* district provide a captivating story about the city's historical growth, architectural legacy, and urban dynamics. This study uncovered a rich tapestry of insights about Tuguegarao's history, present, and future through a rigorous examination of historical sources, architectural styles, and urban mapping data.

From the Spanish Colonial Period's stamp on the city's urban plan to the adaptive reuse of heritage buildings in the present day, the findings illustrate the persistence of historical components in the face of modernity and urban growth. The findings give a comprehensive knowledge of Tuguegarao's urban morphology by looking at the spatial distribution of major monuments, the conversion of residential zones into commercial districts, and the issues of heritage protection.

The results, viewed through the lens of stakeholder viewpoints and community participation, offer light on the socioeconomic dynamics, cultural heritage values, and urban planning efforts that create the *Poblacion* area's character. By combining various data sources and viewpoints, the findings provide a thorough picture of Tuguegarao City's urban fabric as well as the intricate interaction of historical, cultural, and modern factors that define its distinct character.

### **Tuguegarao and the Spanish Colonial Period (1591 - 1898)**

According to pioneering Spanish chroniclers, Tuguegarao was first occupied by the Irraya people, with the same name of their language. This is contrary to popular belief that Tuguegarao is a "Premier Ibanag City" which is further fueled by the unfounded Ibanag etymology of Tuguegarao as "Tuggi Gari Yaw" (meaning, "This was once burned."). In fact, the Ibanag language gradually came to Tuguegarao as a *lingua franca* during the Spanish Colonial Period, to which reason the Ibanag language was eventually learned by the occupants of Tuguegarao. Today, the Irraya language is nearing its extinction. Academic study is still needed to further check its current status. As a mission-*pueblo* established in 1604, Tuguegarao gained its prestige as one if the active places for the Catholic faith spearheaded by the Dominican Fathers (Noche, 2004).

Tuguegarao or Tubigarao was first mentioned Tuguegarao is originally listed as one of the early encomiendas of the 1590s. Tuguegarao was part of the vast encomienda belonging to Don Alonzo Vasquez. This vast encomienda covers Tuguegarao stretching southwards to Maquila (located along barangay Namabbalan). Old barangays were called "rancho" back then. Depictions on old maps still use "Tubigarao" rather than "Tuguegarao." (Angara, Cariño, & Ner, 2009) By the early 17<sup>th</sup> -century, Tuguegarao was still one of the towns of the missions of the Dominican Fathers and had its own *visita* (or small chapel from *camarin* or storehouse) made of light materials (wood, bamboo, cogon, and nipa). This *visita* was later translated into brick and iron-roofed structure (Macarubbo, 2019; Hornedo, 2002).



Figure 1. Cropped map (Acosta, 1719) showing "Tuuigarao."

Originally, Lal-lo (formerly named as Nueva Segovia) was the capital of Cagayan province (or in Spanish *Provincia de Cagayan*) which spanned from the islands of the Babuyan Channel, going inland from Aparri to Nueva Vizcaya and stretched Northwestwards towards the foothills of Cordillera (along Apayao). Since Lal-lo's importance and prestige was lessened due to the transfer of the diocese of Nueva Segovia from Cagayan to the far western coast of Vigan, Ilocos Sur, Tuguegarao was "chosen" as the new center of Spanish activity. (Jose, 2020)

The economy of the time is based on trade, service, and tributes. Since the Tuguegarao (Malumbres, 1918) is the most fertile area of Cagayan, the encomienda system was active and it can be said as a magnet to the influx of Itawit and Ibanag immigrants from different portions of Cagayan Valley. A well-planned area, the *poblacion* is chosen to be located along the junction of Rio Pinacanauan (Pinacanauan River) and Rio Grande de Cagayan (Cagayan River). This is a strategic location is probably strongly influenced by the planning standards for the foundation of different Spanish Colonial Towns ordered by Philip II in July 3, 1573 (Lico & de Viana, 2017). It eyes the different ranchos, wide land for farming, plantation, and fresh water.

Trade and transportation during this period was still river-based (Salgado, 2002), mainly along the Cagayan River since the natives do not have distinct or permanent highways to transport goods. (Hornedo, 2002) This is also observable in the manner of Spaniards designing and locating their churches: they should be beside or facing rivers in Cagayan. (Barretto-Tesoro, et al., 2023)

Tuguegarao is not exempted from uprisings due to abuses of encomenderos, others were of personal motives. With these, people found refuge on mountains but due to the efforts of the Fathers, *ermitas* were built within reach of the ones fled to return to the faith. Spanish-period maps still show the locations of these *ermitas* along different ranchos. With this situation, it cannot be fully ascertained that the Poblacion area was completely occupied due to insurrections and contained settlements along ranchos (Malumbres, 1918).

The lasting achievement of the Spanish Colonial Period is in its infrastructures, Ibanag lingua franca, archival records, and the Catholic religion. The most famous and probably the first urban planner of Tuguegarao City may have been Fr. Antonio Lobato, O.P. This Dominican Father is attributed with the design of the grid-patterned *Poblacion*, roads, bridges, and his magnus opus the great Cathedral of Tuguegarao City. The measurement of the *Poblacion* blocks are heavily influenced by the edict of Philip II that the shape of the blocks is preferably rectangular, with its length is twice as large as the width. With the same edict the streets of Tuguegarao *Poblacion* was designed directly aligned to the cardinal points (Lico & de Viana, 2017). The Cathedral's bell tower location was also within earshot of the *Poblacion* map. Fr. Lobato also invested in numerous bridges as access to different ranchos surrounding the *Poblacion* area. Early mapping records also use the Cathedral as a surveying landmark to measure the distance between other pueblos (de Ardanaz, Fontana, & Aguilar, 1892).

Among the remnants of the Spanish Colonial Period buildings and infrastructures are the following (see photo below):

- Iglesia Catedral de Tuguegarao (St. Peter and Metropolitan Cathedral, built 1767);
- Convent beside the Cathedral (destroyed during World War II);
- Campo Santo beside the Cathedral (used until 1896 due to sanitary reasons);
- 5-leveled bell tower of the Cathedral (restored due to World War II bombings);
- Ermita de San Jacinto (Church of St. Hyacinth of Poland);
- New *Campo Santo* at barangay Pengue-Ruyu, established at 1896;
- Fuente (bridges) built by the famed Fr. Antonio Lobato, O.P.;
- Horno (brick kilns);

- Escuela de Sta. Imelda (now the site of St. Paul University); •
- Presidencia (Old Municipal Hall, now Tuguegarao East Central School);
- Casa Real (Old Governor's Office Building, later replaced by the Paseo Real and now the • Primark Mall);
- Casa Tribunal (Old Justice Hall and Prison Building, later reused as the Provincial Jail and • currently the Cagayan Museum);
- Tabacalera Building (now site of SM Hypermarket); •
- Ermitas built on different ranchos; and •
- Grid plan of the Tuguegarao city Poblacion •



Figure 2. Land Use based on as of 1892 (de Ardanaz, Fontana, & Aguilar, 1892).

Finally, the campo-santo was later transferred to barangay Pengue for sanitation reasons. All buried bodies at the old cemetery beside the Cathedral were not transferred. It is within the old cemetery that the famed Fr. Antonio Lobato was finally buried. Following the transfer of the cemetery to barangay Pengue in 1896, the famed personalities such as politicians and Fr. Julian Malumbres was buried.

In actuality, this period of construction by Fr. Lobato in the 1760s, was probably encouraged by the construction of an earlier large brick ermita built in 1724 and the increase of parishioners.

By the year 1850 (Malumbres, 1918) Tuguegarao has already 7,644 inhabitants from the total of 29,051 of the Valley, this is 26.3% of the inhabitants of the 13 towns of Cagayan. It is also notable that Lalloc or Nueva Segovia (former capital of Cagayan) has only 920 inhabitants, this means that the urban center of Cagayan is gradually transferring to Tuguegarao. Another reason is that Lalloc (Nueva Segovia) as the seat of Diocese transferred to Vigan which further affected or decreased the parish population. The population of Tuguegarao during the Spanish Colonial Period is recorded as follows:

- 8,709 of the 29,866 in Cagayan, which is 29.1% of the population in the year 1801 where the census is from 11 towns;
- 15,055 of the 48,263 in Cagayan, which is 31.2% of the population in the year 1850 where the census is from 17 towns; and
- 17,350 of the 106,361 in Cagayan, which is 16.31% of the population in the year 1897 where the census is from 19 towns.

From the above-mentioned list, significant decrease of the population in Tuguegarao may have been due to the creation of new pueblos (towns). For instance, Tuguegarao previously included that of Cavug (now Enrile), Solana, and Peñablanca. The name Tuguegarao was also carried on 130 kilometers south of Tuguegarao to the town of Echague, Isabela where there is a barangay Tuguegarao that is occupied by the Itawit settlers. This case of migration of the Itawit from the pueblo of Tuguegarao to Echague, Isabela is old enough to be recorded on 1918 (Malumbres, 1918).

#### Importance of Tuguegarao in the American Period to World War II (1899 – 1945)

Clearly, much of the urban development of Tuguegarao (its Poblacion and as a pueblo) is richly recorded in the Spanish Colonial Period. It can now be assumed that the American and Japanese influence were just a moment in Tuguegarao's history. Due to limited sources, photographic evidence is what now one of the most notable remains of Tuguegarao's morphology.

With the emphasis on health and education, Tuguegarao saw its development with the American Government. One of the most transcendental buildings were the Cagayan High School (established in 1905) and the Cagayan Provincial Hospital. This means that Tuguegarao now has access to public health and education. This is a shift into a healthy and educated general population. Catholic education flourished as *Escuela de Sta. Imelda* is later run by the Sisters of Saint Paul. The Girl's College beside the Cathedral were run by the Sisters of Saint Paul of France and the boy's school were of San Jacinto. In 1918, the San Jacinto Major Seminary was opened for the Catholic education of boys (Malumbres, 1918). Also, by the year 1918, Malumbres reports that there is "the urbanization of streets and houses with their respective titles and numbers; the concrete public buildings, the Provincial and Municipal Government and the prison. There is a well-built ice factory and several rental and private cars. Commercial streets deserve special mention, very well arranged in the past four years." (Malumbres, 1918. p. 382)

What's interesting on the Tuguegarao Poblacion area is the multilayer combination of socioeconomics, geopolitics, and ecclesiastical urban fabrics.

### Tuguegarao in the Post World War II to the 21st Century (1945 – Present)

With the damages of World War II which lasted about 1945, efforts on sanitation and rebuilding continued (Filipinas Heritage Library, 2020). At present, the urban development of the Poblacion can be layered by the following influencers:

- Regional Government
- Provincial Capitol
- Tuguegarao City Government

The Regional Government is represented by numerous Government agencies. One of which is the Department of Public Works and Highways which spearheads the development of two axes: the Luna Street and Rizal Street (both portions of the Cagayan – Apayao Road). The Provincial Capitol oversees the development of the Rizal's Park area and the present Cagayan Museum. Also, the Tuguegarao City Government handles almost the entire Poblacion area in terms of waste management, environmental control, building use, and road management.

Socio-economics also play a vital role on the usage of the Poblacion space. As a remnant of the Ibanag lingua franca, the current merchants, residents, and landlords speak Ibanag. Itawit vendors

along the market place is evident – most having no permanent selling stalls, i.e. as "ambulant" vendors along the sidewalks. Chinese merchants are also active in the Poblacion area, such as that the Calle Comercio (Bonifacio Street) is owned mostly by the Ibanag-speaking Chinese merchants. These Chinese mestizos or immigrants also succeeded in the political arena, with one named Delfin Ting being a builder of Tuguegarao during his term as Municipal and City Mayor (2007). Socio-economics and politics assumed great role on the development of the Poblacion, with multi-storey concrete buildings along the *Calle Comercio* (Bonifacio Street) and Luna Street both streets dominated by Ibanag and Chinese businesses.



Figure 3. Land Use as of 2003. Satellite image from Google Earth.

The strong commercial activity along the Bonifacio Street and Luna Streets also influenced the gradual decay of residential zones. This is an observable fact since the residential houses along the Poblacion manifests either literal decay (abandonment of house) or the shifting of use from residential to rentable buildings either by renovation or by complete removal of the former structure. This phenomenon is further battered with the fact that four College Institutions are present within or immediate access of the Poblacion proper namely the University of Saint Louis Tuguegarao, St. Paul University Philippines, Florencio Vargas College, and the University of Cagayan Valley.

What's more interesting is the treatment of building conservation along the Poblacion area. Adaptive reuse (or form of it) was done with the following:

- Tuguegarao City Science High School (formerly the Tuguegarao City Hall);
- Tuguegarao East Central School (formerly the *Presidencia* now surrounded by multiple school buildings)
- Cagayan Museum and Historical Research Center (formerly the Casa Tribunal and later Prison)
- College of Architecture Building (formerly the Bishop's residence and the San Jacinto Building)

Removal of old buildings was done with the following sites, with their new building:

- *Tabacalera* site (now the SM Hypermarket)
- Provincial Hospital site (now Primark Mall)

## Future of Tuguegarao City Urban Planning on the Poblacion Area

Judging by the current trend of adaptive reuse, teardown-and-build, conversion of residential use, and the maintaining of old buildings, it can be theorized that:

- 1. Residential buildings will continue its decay, and eventually engulf the entire *Poblacion* area of commercial buildings;
- 2. Architectural conservation efforts shall continue;
- 3. If the Chinese Community will continue its grip and development, is it possible that a portion of the *Poblacion* will become a China Town?;
- 4. Due to tripolar development, where modern city development is away from the Poblacion, the *Poblacion* area will retain its current form, maintaining the Bagumbayan area as a Residential zone.

However, active it may be, one cannot deny the endemic idle lands, decaying buildings, and inactive streets on the *Poblacion* area. With this, it is theorized that interest will be away from the Poblacion, and will follow the barangays to which job locations is strong, for instance, barangays:

- Carig (site of the new Regional Government Center),
- Tanza (site of the new Robinsons Mall),
- Buntun (site of the new multi-commercial developments), and
- Bagay (site of the large SM mall, under construction).

Below is a tabulated description of the multifaceted buildings and streets the developed and currently evolving. Some of it retained their former outline.

Table 1. Overview of the Tug	Table 1. Overview of the Luguegarao Poblacion via Google Street View.				
Street with vista		Luna Street			
		Mabini Street			
Sidewalk Shops		Del Rosario Street			

Table 1. Overview of the Tuguegarao Poblacion via Google Street View.

Heavy development along <i>Calle Comersio</i> by Ibanag and Chinese businesses		Bonifacio Street
Abandonment or Idle Property		Aguinaldo Street
New developments, such as hosptials, within <i>Poblacion</i>		Arellano Street
Typical Idle or Inactive Roads	Coogle Earth	Burgos Street
Private and ancestral homes		Del Rosario Street

Typical old Bagumbayan Style	Bagumbayan Area
Shops integrated to Residential Houses	Legaspi Street
Typical Modern House	Blumentrit Street
Heritage Buildings engulfed between modern development	Rizal Street

Renovated Buildings to Accommodate Shops and Businesses	Bonifacio Street
Active Adaptive Reuse	Mabini Street Former Municipal Hall, now the Tuguegarao City Science High School
College Institution within the <i>Poblacion</i>	Blumentritt Street



Figure 4. Land Use as of 2020. Satellite image from Google Earth.

### Conclusion

Due to the completeness of the *Poblacion* with the Cathedral, schools, residential space, heritage buildings, and shops, it can be said that this robust area will continue to survive. Due to this completeness, the *Poblacion* can be classified as a city of its own, going back to the goals of the original Spanish Plan that emanates a thriving community and the American goal of healthcare and education. Due to limited approach, sparse historical documents, and time constraints, continued study will be needed of the Chinese Community, a stronger heritage research and conservation efforts, and the research on the idleness of lots and ancestral houses within the *Poblacion* (especially along *Bagumbayan* zone).

The morphological analysis of Tuguegarao City's *Poblacion* neighborhood reveals a rich tapestry of historical influences, urban development patterns, and socioeconomic dynamics that have defined the city's character throughout time. From the architectural legacy of the Spanish Colonial Period to the adaptive reuse of heritage buildings in the modern period, Tuguegarao's urban fabric displays a

combination of history and development. The existence of educational institutions, religious sites, and economic activity demonstrates the city's resilience and capacity to adapt to changing circumstances.

As Tuguegarao evolves, it is critical to strike a balance between cultural preservation and urban expansion and development. Efforts to save historical structures, encourage sustainable urban design, and involve different populations will be critical to preserving the *Poblacion* area's distinct character. Tuguegarao can continue to grow as a thriving city center that celebrates its rich history and tradition by acknowledging the importance of the past while seizing the prospects of the future.

### **Disclosure of Conflict of Interest**

The author of this paper has no conflict of interest whatsoever including any relevant financial or nonfinancial competing interests to report.

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