Street Naming and Odonymy in Quezon City

Miguel Lorenzo J. Tan

Abstract

This paper describes the odonymy in the Philippines's Quezon City (QC). A list of 3,957 unique street names in QC is generated from the database of OpenStreetMap (OSM) and arranged into an index. From this list, the odonyms are categorized into four emerging main categories of street names: (a) Eponymic or Commemorative, (b) Cultural, (c) Themed or Associative, and (d) Descriptive. It is found that a third (1,285) of streets in QC were eponymic or commemorated a significant person or event in the country's history. Six hundred and forty-two (642) streets were related to some aspect of Philippine culture, heritage, religion, and values system. Street names that were themed or had semantic associations with one another were most in number at 1,674. And street names that described its location or a nearby landmark numbered at 356. These four, with their respective subcategories, also serve as a typology of odonyms and thus reflect a tradition of street naming practice in QC. The overlaps in the typology and categories of odonyms are due to the polysemy of some street names and reflect the simultaneous deployment of various naming motivations and strategies by the state and private stakeholders, including political, historical, cultural, religious, ecological, and ideological considerations.

Keywords: toponymy, odonymy, street names, Quezon City, OpenStreetMap, urban studies

1 Introduction

To the inhabitants of an area, its frequent visitors, passengers and plyers, and all other wayward wayfarers, street signs and street names are simultaneously ubiquitous and crucial. In the most practical sense, street names allow for efficient and successful landmarking and navigation. But behind each and every official name for a highway, street, avenue, road, drive, lane, bridge, alley, exit, boulevard, rotunda, place, and any other path is a deliberate choice and an enacted policy, reflecting perhaps the various cultural-ecological values and beliefs of its area and era, or maybe an appreciable historical figure or event, and even latent political agenda and ideology. The study of such geographical

names and naming practices is called *toponomastics*, and this paper is an exercise at *odonymy*, the sub-branch dealing with the names given to streets and street-like paths.

1.1 Paths and Destinations

In particular, this paper aims to describe and discuss the odonymy in Quezon City (QC) in the Philippines' National Capital Region (NCR). A list of all official street names—*street* is henceforth meant to be inclusive of residential and suburban area streets, as well as minor and major national and public roads and highways—in and through QC is generated from the database of the open-source website OpenStreetMap (OSM). The collected list, which is essentially an index of streets in QC, is then categorized into any emerging themes or categories, creating a sort of typology for street naming. I also aim to provide some insights into how this typology and convention for street naming in QC may reflect the cultural and political ethos of both its policy-makers and citizens.

As such, the following questions serve as a guide throughout the research:
1. What languages are the official street names in QC in? Do the street names have or undergo any sort of orthographic variations? If so, what are these variations?
2. What are the emerging practices, themes, and conventions for street naming in QC? How can these inform the identification of a typology of street names?
3. Are there any naming motivations (e.g., political, historical, religious, cultural, ecological, ideological) behind the street naming practices based solely from the typology and data?

I will first give a brief introduction to the spatial and theoretical scope of present study, a short background on QC, and an explanation of the paper's other limitations and its potential significance. I will then move to a short review of extant literature on odonymy, and then to an explanation of my method and data gathering procedures. Next, I will provide an overview of the odonymy of Quezon City and an analysis of my data and typology with some insights and conclusions. Finally, the list of streets arranged by category is appended to the end of the paper.

1.2 Streets, Signs, and Street Names

In a toponomastic undertaking, we must first define and bound the space we are dealing with. In the most basic sense, a street is a public thoroughfare where people and vehicles can pass to get to places. Streets are usually flanked by houses and infrastructure, and should lead to other streets. A couple of these streets will form a block, and a collection of blocks creates a city. Hence, streets are commonly associated with urban sprawl, although any recognized and traversable thoroughfare anywhere already counts as a street. In fact, streets themselves are subjects in the field of urban studies and anthropology. Lynch (1960/2014), for example, classifies streets as a path, one of five elements of the "city image" along with edges, districts, nodes, and landmarks. To Lynch, paths are channels along which individuals can move and observe the city and other environmental items. One of these items are street signs, the physical name and label of the street.

We can read street names, or *odonyms*, from the physical street signs on which they are inscribed. Neethling (2016) provides a standard structure for street names everywhere, consisting of two main parts:

$$[\textsc{Specific Name}] + [\textsc{Generic Type}]$$

The specific name is the actual official name of the street that differentiates it from all others, like "Katipunan" or "E. Jacinto". The generic type, meanwhile, is the type of path the street is, like "Avenue" or "Boulevard". Of course, as the generic type can be taken as a form of modifier, the placement of these words relative to the specific name may vary per language. Street names in French, for example, have the generic type preceding the specific name (Ferguson, 1988). In some areas, street names are not salient geographical features, so the presence and use of the generic type matters even less, like in some areas in Japan (Neethling, 2016). Differentiating among the various generic types will prove to be essential to this paper later on, as these are key to furnishing a unique list of street names in any area. However, the various physical and definitive differences among these generic types will not be discussed here any further.

The naming of streets and the placement of physical signposts serve various functions. Most apparent of these is that they organize place and space, and by extension they are crucial in the (re)organization of daily life and its activities and events. Other practical functions include a referential function, as street names are also used as points of reference in communication and spatial organization. Street names also serve a navigational function, as they allow movers to traverse the city and get to their destinations in a systematic orderly manner. In this way, street names and their signs are markers of locations of activities, transactions, and movements. Street names also have an administrative function as they divide and bound the city to distinct areas or districts governed by concerned local government units. And finally, street names have latent functions that go beyond the practical. Street names and signs are also treated as having semiotic functions due to being part of the linguistic landscape. And in the case of streets being purposefully named by policy after a chosen entity or idea, they exhibit a commemorative and political purpose as well (Azaryahu, 1996; Casagranda, 2013).

In short, odonyms are both literal signposts and semiotic signs. On one hand, several odonomastic studies already treat street names as a significant text of the city, a "city-text" (Azaryahu, 1996; Oto-Peralías, 2017). Meanwhile, some studies merely treat street names like an index, a collection of words we can extract from its environment and arrange purposefully in a list, from which we can then gather inferred information about the city (Casagranda, 2013; Perono Cacciafoco & Tuang, 2018). This paper's treatment of odonyms in QC is more akin to the latter type of odonymy.

1.3 Quezon City as an Urban City

Quezon City (QC), the Philippines' most populous city, is itself a commemorative eponym, named after the country's second president, Manuel L. Quezon. Out of the 16 cities-municipalities of the National Capital Region (NCR), QC is the most populous, sitting at a population of around 2,900,000, and also the largest in terms of land area

covered at about 161.11 square kilometers (QCPDD, 2018). To put these numbers into perspective, both QC's population size (23%) and land area make up about a quarter of the whole of NCR, the other three quarters belonging to the fifteen other city-municipalities combined (QCPDD, 2018). With regard to the distribution of its population by religion and language spoken, the following tables are taken from QCPDD (2018) through the national census of 2015:

Table 1
QC's Population Distribution by Religious Affiliation

Religious Affiliation	Number	Percent
Roman Catholic	2,532,395	86.25
Protestant Christian	165,162	5.63
Iglesia ni Cristo	135,566	4.62
Islam	32,242	1.10
Others/None	70,751	2.40
Total	2,936,116	100.00

Table 2
QC's Population Distribution by Language Spoken

Language Spoken	Number	Percent
Tagalog	1,287,154	46.78
Bisaya/Binisaya	370,580	13.47
Bikol	248,588	9.03
Ilocano	223,692	8.13
Hiligaynon	119,473	4.34
Others	502,092	18.25
Total	2,751,579	100.00

The distribution of QC's population by religion and language spoken may inform our insights on QC's odonymy later on, particularly the language of street names and any religiously named streets. Furthermore, through a preliminary test using OSM, which I will explain in more detail at the methods section, I found that QC's streets number at around 5,000, while the median number of the other city-municipalities in NCR hover around 1,000 to 2,000, with Navotas and Pateros both being below 500.

The fact that QC towers over NCR in number and in scale should not be surprising. After all, its zoning and boundaries indicate that it was a "planned" city, and from 1948 to 1976 even served as the nation's capital (Pante, 2019). Pante (2019) also discusses in detail the history of QC as a political urban city, as well as the geopolitical changes it has undergone over the decades. QC can be illustrated by numerous social and private housing projects (hence the districts named Project 1, Project 2, etc.) and the stark juxtaposition of urban slums with gated subdivisions and high-rise, high-cost condominiums. Nevertheless, QC is still one of the country's most competitive economic

and entrepreneurial hubs, and it is also considered the base of important media networks and companies.

Contemporary QC is home to 142 barangays divided into six congressional districts. Its sheer number of government units show its capacity as a center of political activity and, in fact, a crucial base for elections and garnering policy support. Of course, there is also an informal way of cutting up QC into various culturally popular districts. These districts are also notable for the coherence of their street names which abide by a recognizable theme. For example, Maginhawa Street, also known as "eat street", in Diliman is but one of many streets in the vicinity named after the theme of what purports to be Filipino values and aspirations, along with Malingap, Maamo, Madasalin, and the like. Close by is what is called the "Scout area", a neighborhood in the district of Laging Handa (which is also the scouts' motto) whose streets are named after the surnames of 24 Filipino boy scouts and officials who perished in a plane crash on their way to the 1963 11th World Scout Jamboree in Greece. As a result, some previously alphanumerically named streets in the area (e.g., South 2, South A) were renamed to commemorate the fallen scouts (Ocampo, 2020). There are also some areas in QC, and perhaps cities in general, where the streets are named with reference to a proximate well-known landmark. Examples are the neighborhoods and streets around Katipunan Avenue, location of the Jesuit-run Ateneo de Manila University and other schools, which are named after Jesuit saints (e.g., Loyola Heights, Xavierville) and around the theme of Philippine education and Filipino educators (e.g., Varsity Hills, Esteban Abada, Nicanor Reyes) (Sison, 2017).

The naming and renaming of streets and other public spaces and infrastructure in the country are regulated by guidelines from the National Historical Commission of the Philippines (NHCP). Naming practices, including who may rename, what may be renamed, what kinds of names can be given, and when renamings can happen, are outlined in NHCP's Revised Guidelines of 2011. Concerned government departments and local government units are advised to comply with these guidelines. In accordance with NHCP, the QC Council also released their own Ordinance SP-2462, S-2015 on (re)namings of public places. From both documents, we can work out a sort of priority system wherein Filipino, local, or indigenous terms, toponyms, and odonyms are preferred over Hispanicized ones, which are preferred over borrowed (i.e., English) ones. There is also a strictness and hierarchy when it comes to commemorative street names after persons and politicians. For example, primary roads are reserved for past presidents and national heroes, secondary roads are for legislators, and tertiary roads are for local officials and prominent families who have made great contributions to the welfare and development of the Filipino people. Streets can only be renamed to commemorate particular people only at least 10 years after their death unless their life or death was exceptional (i.e., martyrdom and patriotism). Moreover, streets already named after persons cannot be renamed after persons lower down in the hierarchy. In NHCP's guidelines for historic centers and heritage zones, "streetscapes" are also considered to be of significance and up for conservation. It can be read from all these guidelines that the following tenets are strived for in (re)naming streets and places: historical significance, aesthetic unity (i.e., the thematic consistency), and continuity (i.e., cultural salience and logistical considerations). A recent case of an attempted street renaming happened back in 2020,

as top officials tried to rename Del Monte Avenue in QC after action star Fernando Poe Jr., to which the NHCP initially objected, citing reasons of Del Monte's centuries old legacy and history (Cordero, 2020).

1.4 Roads Not Traveled By

The paper will only be dealing with "official" street names in QC from data available in OSM. Note that data and information in this website can be changed by any registered user; hence the first minor bump in the road: the paper aims to study official street names, yet OSM employs the contributions of "unofficial" individuals. Thus, data from OSM is pliable to human error. Nevertheless, only unique streets of QC in OSM's data as of March 30, 2023, the date I extracted my initial list, will be treated. As such, unofficial, informal, or other pop culture names for areas are excluded. The list of street names will also be treated from a synchronic perspective, so the etymologies, mythologies, historical developments, and name changes of particular streets are not discussed; newly added streets after the said extraction date are also not taken into account. Still, an exploration into the more widely used terms, names, and shortcuts that people use to refer to popular places and streets, as well as their developments over time, remains interesting and worthwhile for a separate study.

This paper does not use data from Google Maps or Waze because the data from these private companies are not publicly available for free. Data from official sources, like the local government of Quezon City or other concerned government agencies, are also left as an unexplored resource for this paper. I recognize that data from official sources may be more trustworthy and, in any case, would have at least served as a useful index for cross-checking. But the convenience and relative ease offered by OSM and its already available open-source code, which is meant for data sharing anyway, were ultimately preferred.

Because the area covered by the paper is the entirety of QC, it deals with a large amount of data and thousands of individual entries. Thus, the paper is more quantitative in nature, and the attempted odonymy here is more of a bird's eye, large-scale view rather than a particularized and heavily localized approach. In this vein, the produced list of streets is treated like an index, and the reading of the street names is then like reading from a phonebook. As the street name is extracted from a database, the street name is also removed from the physical space it labels, from the environmental context it belongs to, and from the linguistic landscape it is a sign of. Simply put, I am not physically there on the streets I am studying. The street name is taken as unrelated from the physical characteristics of the street it names, as well as its location amidst the other streets. In real life, this is obviously not the case, so this opens up an unexplored complementary field of inquiry with regard to the odonymy of QC. Overall, the paper treats street names as indexed on a list, not as distributed across space nor time nor as part of the cityscape of texts.

1.5 Turning Corners

The field of toponomastics and odonymy is vast, and I must constrain myself to these limitations in the interest of feasibility. Regardless, an odonymic study of this sort is useful at the very least because it provides a workable list and index of street names in QC as of March 2023. Furthermore, the study can serve as a baseline for more focused, localized, and in-depth toponymic studies in the Philippines in the future. It can serve as a point of reference or a standard for comparison, and in this regard, it fills a gap in the literature. Through my utilization of OSM's code and data, and with the completion and acceptance of a sensible paper, perhaps I can also contribute to the academic acceptance and validity of using collaborative open-source websites as reliable data resources. Not only do these sorts of sites promote intellectual freedom and the democratization of information, I believe that these also foster an environment of active participation of knowledge-seekers across geographies. Also, by making use of a ubiquitous city-text (i.e., odonyms) as quantifiable data, and thus potentially correlational data, I hope to make a preliminary empirical contribution to the social sciences, a discipline which can be helped instrumentally by quantification and digitization through the use of new technologies, as exemplified by Fabiszak et al. (2021) and Oto-Peralías (2017). Lastly, the study of street names is worthwhile because as ubiquitous as they may seem, odonyms themselves are an oft overlooked political arena wherein discourse and power are exhibited and exercised, which I will now discuss in the next section by covering some related studies.

2 Review of Related Literature

In this section, I will give an overview of existing literature on odonymy from both abroad and within the Philippines.

2.1 Odonymy as an Urban Subfield of Toponomastics

Odonymy, or the study of street names, belongs to the broad field of toponomastics. Neethling's (2016) concise summary of Toussaint's (2007) definition captures the scope of odonymy efficiently: "[odonymy] concerns itself with the names and naming of public streets, roads, and highways; how and why such names are selected; the approval, cataloging, and standardizing of these names; and making information about these names available" (p. 1). These concerns are shared by this paper.

Because streets names are more commonly associated with towns and cities, perhaps due to their organizational and administrative functions in governance, odonymy is also seen as a more urban subfield of toponomastics (Neethling, 2016). No doubt, the escalating gentrification and growth of urban sprawl all over the world in recent years contribute to the widespread association of the street with the city, again rooted in its function as an administrative unit. Asphalt, business establishments, cars, and standardized signposts are common images of an urban streetscape. These thoroughfares are also usually given an official name by their respective local government units. Yet uncemented, undeveloped, unnamed paths in rural places all qualify as streets too and,

in fact, it can be argued that these are streets in their most basic and "primitive" form; that these are how the streets we walk begin. These streets, which are barely considered streets in the modern urbanized sense, are more akin to a general path, a common way, a culturally known passage to one's destination; these streets are places and spaces in their very essences. These places and spaces may have their "official" names mutually agreed upon and given to them by locals; at the same time, these very same paths have "unofficial" or "informal" names used by visitors, migrants, or even the very same locals but in different situations.

The names people use for streets and paths also expectedly change over time, as do names for other places, things, and even peoples, because those very users change too. So, we see here that names and the places they name run parallel to each other as they undergo changes over time: as the physical characteristics and inhabitants of a place change, so do its names. All this is to say that we can situate odonymy within toponomastics as one of the latter's more urban and modern reimaginings and reinterpretations of place and space naming. Hence, streets as we understand them today can be treated as place and space touched by modernity's urbanizing and bureaucratic forces (Cumbe, 2016; de Certeau, 1980/1984; Low, 1996).

2.2 Odonyms As Signs in Place, Space, and Time

My review of extant literature reveals that odonomastic papers can be situated across a sort of methodological and theoretical spectrum. On one end are papers that treat street names as part and parcel of the physical street sign, as componential to the linguistic landscape of which it is part, and as inseparable from the rural or urban environment within which it exists (see Amos, 2015; Banda & Jimaima, 2015). These studies view the street name and sign as a sign, and treat it from a structural, semiotic perspective. Street names are treated as part of discourse, as discursive units themselves, and as such carry within its name politics and ideology, almost akin to Roland Barthes's mythological signification. Studies like Ferguson (1988) and Moll (2011) treat them as part of the "symbolic infrastructure" of an area, for example, and thus as semiotic and politically-charged.

Among these studies is Amos's (2015) of street signs in Toulouse, France, which discusses how because of the ubiquity and uniformity of street signs, they have often been overlooked as part of the linguistic landscape and thus have not warranted further analysis. Yet they argue that it is precisely the mundane visibility of the street name in daily life that gives the language of the odonym visibility. And this visibility, in turn, can be used to unmask and even challenge linguistic hierarchies in the area, hence contributing to language vitality efforts and minority language activism.

Moreover, Banda and Jimaima (2015) discuss how the fadedness or general absence of street signs can unexpectedly retain their purpose as navigational "signposts." Through the intentional repurposing by the locals of rural Zambia, they show how the street name and sign is somehow debased to a semiotic form, subsequently finding for it a new meaningfulness in its fadedness (despite it being more "invisible" and easier to forget). This act also becomes a form of protest through the locals' show of persistence

in the face of poor material conditions. Odonomastic studies like these that treat the street name and sign as a politically-charged sign also constitute the subfield of critical toponomastics, which take the place and the place name as sites of discourse, laying out the colonial history and aspirational futures of said place across space.

Apart from the physical structure of the street sign, the odonym itself is also essential to its being a political sign. Naming and labeling, after all, can be seen as an exercise of power done by the namer on what it is naming. While in its most basic and practical sense, naming can be a mere cognitive discrimination among concepts and meanings, an imprint and trace of the name-giver and their motivations are nevertheless left on the identity of the named entity (Brink, 2016; Mabanglo, 2009). Casagranda (2013) even goes on to call it a "form of norming," priming one's expectations and ideations; as such, naming is a way of (re)defining. And in the case of place naming, the concept applies to acts of boundary-setting, territory-marking, identity-forming, and nation-building. Of course, these also apply to intentionally named streets, either by public policy or by the private choices of the street's stakeholders. Motivations like commemoration and marketing thus become part of the decision-making process of naming streets (Azaryahu, 1996). Furthermore, Augustins (2004) describes the act of street naming as a political act of "dedication" in accordance with an intellectual or moral tradition as a means to stratify and differentiate social and spatial reality.

On top of that, street names can also be renamed; it can even be argued that any act of naming in toponymy is always an act of renaming. As the odonym is considered to be relatively more pliable and subject to changes, should logistical and financial considerations allow, street names are a relatively more routinely changed element of the city-text. Azaryahu (1996) calls street renaming a simultaneous commemoration and de-commemoration, a "ritual of revolution". Accordingly, street renaming is often a signal of shifts in power, particularly among those with authority over urban planning decisions, may it be political upheaval, a change in bureaucratic regime, the establishment of a new political order, or the promotion of the values and ethos of new era, among others (Azaryahu, 1996; Casagranda, 2013; Light et al., 2002). As the new name receives elevated recognition and begins to enter public usage and memory, the replaced name meanwhile is lowered down into the history of the mundane, the realm of the forgotten. This exchange is why the subfield of historical toponomastics exists: political motivations and influences in place naming can be easily left behind by the name, especially ones with colonial roots (Yeoh, 1992).

Because renamings are a public political act, these can also be met with resistance and conflict, between those who argue for change and those who mean to conserve the status quo (Palonen, 2008). In fact, I found a substantial number of odonomastic studies dealing with street renaming and their political and ideological motivations, ramifications, and backlash. The papers of Azaryahu (1997), Light (2004), and Matsyuk (2014), for example, discuss street (re)naming policies in Central and Eastern European cities as influenced by the rise and fall of the Soviet republic and the remnants it left behind. Some others discuss the relevance of street naming policies on matters of local and national identity and in dealing with the baggage of historical conflict; Faraco and Murphy (1997) is an odonymy of Almonte, Spain, facing its riddled past of dictatorship. Azaryahu and Kook

(2003) and Wanjiru and Matsubara (2016) both look into street naming as factors and shapers of reputed identity amidst troubled pasts and presents, particularly as local cultural heritage for the former and as an act of national decolonization for the latter.

The frequent targeting of the odonym at times of political change only points to its ideological latency as an urban feature. Azaryahu (1996) tells us that however ubiquitous street names may be, they nonetheless end up serving as representations of legitimate history, one created by policy-makers and urban planners who "introduce an authorized version of history into ordinary settings of everyday life" (p. 312). To illustrate, as we walk through the city and navigate its streets, we can read through its history as laid out in a flattened grid of streets, with the past and even deeper past intertwined into a single present time and all their complexities and contradictions settled in a sort of anachronistic narrative; think of "Katipunan Avenue" intersecting with "[Ferdinand] Marcos Highway." In this vein, the ubiquity and mundanity of street names make them powerful urban propaganda markers, and iconographic symbols that silently (re)configure cultural space, public consciousness, and memory.

We see here that despite odonymy being seen as a more urban branch of toponomastics, it is still necessarily entangled with history. Taylor (2016) provides a useful guide to possible methods in place name research, yet theirs is more applicable to studies with a focus on the history and development of the place and its names. Lim and Perono Cacciafoco (2020) tackle toponyms of metro rail transit stations in Singapore from a historical-comparative approach, highlighting the languages of the toponyms, their significance, and their changes over time. Yeoh (1992), meanwhile, is a seminal work on historical odonomastics, outlining the colonial roots of Singapore's street name system and illustrating a contemporary image of its odonymy.

2.3 Odonyms As an Index of City-texts

On the other end of the spectrum are odonomastic studies that remove the street name from its physical environment and instead read it from a purposefully arranged list or index. By doing so, these studies can treat each individual odonym as a quantifiable and scalable data point. These studies do not reject the significant nature of the street name (i.e., as an ideological sign), and in fact these can be seen as the next progression to such semantic-semiotic treatment of street names. And because these studies methodologically deal with larger numbers of street names, their treatment of odonyms as quantified geographic data can be used correlatively and comparatively. This allows for observations on street name types to lead to wider conjectures about the motivations behind their naming and their possible consequences.

For example, Oto-Peralías (2017), following Azaryahu (1996), categorizes street names as part of a wider collection of "city-texts" along with the other linguistic signs that make up an urban area's linguistic landscape. However, their treatment of such city-text is that it can be quantified, and in the social sciences, they argue that it can be a useful metric that can indicate religio-cultural values, historical appreciations, and infer economic status. Using a deep statistical analysis making use of all the odonyms of Spain (around 700,000 in number), they were able to correlate the types of street names to

various socio-political factors and issues. For example, they were able to connect the predominance of male commemorative street names over female names with persisting gender inequality and male dominance in Spanish society. They were also able to point the presence and prevalence of "nationalist" street names to certain implications related to Spanish national identity-formation and nationalism. Most interestingly perhaps, they were able to correlate street names to matters of memory, historical distortion, and electoral politics. In particular, they found a significant correlation between the presence in some areas of what they described as "Francoist streets" (i.e., streets named after or commemorating former Spain dictator Franco) and the vote share of right-wing parties in those areas at elections. Oto-Peralías's (2017) heavily quantitative study reveals that street names are not-so-ubiquitous after all and can be used as sociocultural indicators.

Interestingly, Fabiszak et al. (2021) also attempts to quantify the "ideological weight" carried by the semantics of the odonym, in particular of commemorative street names in two towns in Central and Eastern Europe. Working from the precept that street names often symbolize the political ideologies promoted by the state, they attempt to arrive at a systematic and statistical procedure that codes and quantifies these ideologies. Their paper recognizes the challenge of defining and bounding "ideology," and ultimately ends up delineating two ways ideology manifest: in the semiotics of the street name and in the nature of the street renaming process. Nevertheless, they show that ideology in some form is encoded in city-texts like odonyms.

In the making of this study, I also made use of some of what I consider to be model papers in odonomastics as inspiration and methodological basis. Azaryahu (1996) provides the theoretical foundation on street names and their semiotic and political operation. Casagranda (2013) then offers a useful theoretical layer that integrates perspectives from critical toponomastics, linguistic landscape approaches, and postcolonial studies as applied to odonyms. Next, Oto-Peralías (2017) exemplifies how street name data can be treated statistically to become useful socio-cultural indicators. And lastly, Hsiyan (2020), Oto-Peralías (2017), and Perono Cacciafoco and Tuang (2018) all provide examples of odonymies that classify the street names of selected places into a sort of typology according to their semantic content. In particular, this paper takes much inspiration from the typology and categories presented in Perono Cacciafoco and Tuang (2018), as they identified four (4) main categories of street names: (a) Commemorative, (b) Borrowed, (c) Thematic, and (d) Descriptive. The main categories I ultimately found for QC are discussed in the later sections.

2.4 Toponomastics in the Philippines

Finally, in the realm of toponomastics in the Philippines, I only found a few studies that could be considered odonomastic in subject or approach. Ango's (2009) paper discusses some instances of street renaming in Cebu. They show that while street names can be changed as a result of public policy, these may end up more confusing than efficient, even muddling the "identity" of an area; the acceptance and usefulness of such changes necessarily takes time, and the practical functions of street names as markers of space and navigation can easily trump any ideological purpose they may

carry. Meanwhile, Juanico (2018) is a presentation of the possible role of toponomastics in heritage preservation. And finally, Lesho and Sippola (2018) and Romero (2021) both discuss the toponyms of Manila and its surrounding areas. Taking into account the pertinence of an area's geographic characteristics in the naming practice, both agree that "native" or precolonial place names were commonly based on natural characteristics of the local environment (i.e., plants, landforms, and waterforms). However, the country's colonial history eventually manifests itself in the contemporary collage of its toponyms. The Spanish introduced the practice of giving settlements commemorative names (i.e., after hagionyms, religious events, places in Spain or elsewhere, important historical or political figures, or other given Spanish names). English influence, in contrast, is mostly seen in military zones and administrative units like forts and economic hubs (i.e., business centers and gated neighborhoods). This analysis is quite similar to the one done by Cavallaro et al. (2019) in their application of the Sequent Occupance Theory in the toponomastics of Singapore, that is, a region exhibits a pattern of cultural layers laid upon each other, where each layer can be attributed to a particular civilization or culture (i.e., colonizer) that once occupied it, like a kind of cultural sedimentation. Doubtless, sequent occupance is apparent for Manila and its cities as former seats of the country's colonial past.

The extant literature I reviewed here all draw on mixed methods approaches that make use of qualitative judgments and quantitative assessments. We see here that research on odonymy typically gravitates towards the realms of onomastics, critical toponomastics, and social geography and urban studies. Overall, odonomastics finds salience in the study of "social changes in commemoration politics as reflected in the city as text" (Fabiszak et al., 2021, p. 420), some taking on a more localized semiotic approach, while others a more wide-scale quantitative one. The application of such odonomastics on Quezon City, as a city with a colonial history and religio-economic character tempered by administrative policies, is all the more worthwhile. In the next section, I discuss the data gathering software, method, and procedures I utilized to arrive at and explore the odonymy of QC.

3 Methods

In this section, I give a brief background on OpenStreetMap (OSM) as a geographic information system (GIS) and explain the method and procedures I followed in order to: (a) generate an initial list of street names in Quezon City, (b) trim the list to only contain unique street names, and (c) categorize each unique entry of a street name to its respective category.

3.1 OpenStreetMap As a Collaborative Geographic Information System

OSM is an open-source collaborative geographic database emphasizing local knowledge. This means that anyone with internet access can add their own data into OSM, and take whatever data they need from OSM's database as well. This data includes maps, shape

files (the actual 2D mapping of city elements, including paths, buildings, open spaces), lists and locations of utilities and certain establishments (like bus stops, railways and bike lanes, public washrooms, etc.), and text files that label these shapes and locations, among many others. Any and all data are contributed and worked on collaboratively by users with access, who include mapping enthusiasts, GIS professionals, software engineers, market analysts, humanitarians and social workers, and many others in the geomapping community. These contributors, according to OSM's site, use aerial imagery, GPS devices, and low-tech field maps to verify accuracy. The site values local knowledge, which means that contributors and collaborators are encouraged to focus on their local areas to maximize locally available and up-to-date information.

In this regard, OSM is much like other open-source database websites like Wikipedia. This opens up the site and its data to the same benefits and pitfalls that other open-source collaborative sites have. One of them is simply human error, in the form of typological errors and irregularity with orthographic choices. For example, the first contribution I officially made on the site was to fix the spelling of the street of our permanent address in Cainta, Rizal (i.e., from "Hyundia" to "Hyundai"). The possibility of errors like this makes things a bit more difficult: it may make some search queries inaccurate and data sets incomplete. Still, this is only an issue with OSM's text data, like its collection of street names and other tags, and is workable overall.

Gammeltoft (2016) discusses the exciting potential uses of GIS and geospatial databases in onomastic and geographic research. However, I am yet to encounter similar odonomastic studies that make use of OSM as the primary resource and source of text data. In this regard, my undertaking may be considered unorthodox in its methods, or at least experimental in its approach. Regardless, OSM contains a lot of useful data, which can be extracted by researchers in various ways. For this paper, I needed to extract the names for streets and paths, which are treated as text data in OSM's database.

3.2 Routes and Procedures

First off, I did a preliminary feasibility test using OSM by generating a list of street names from each city in NCR through the use of a particular code. Text data like street names can be extracted from OSM's database with the use of Overpass Turbo, a third-party software that data mines OSM's interface through code. The code needed to extract street names was already available in Overpass API's search query guide (see §7.1). All I needed then was to test how the code works. I found that the way the code is designed works like this:

1. One narrows down the area/scope for extraction of street names by typing the place name in place of `"AREA"` in the line `area[name="AREA"];`.
2. The code relies on how places and areas are labeled in OSM. Unfortunately, if one or more geographically distinct places are named or labeled with the same name, the code will cover and extract from all places in the world with that name. For example, replacing `"AREA"` in the search query code with `"Manila"` will extract street names from all places named "Manila" all over the world (i.e., in NCR, in Spain, etc.). This limitation makes it particularly difficult to extract accurate data

from individual cities with borrowed and foreign names (e.g., Manila, San Juan). However, thankfully, places like "Metro Manila" and "Quezon City" are uniquely named areas so the extracted streets from those places are deemed to be strictly from the Philippines.

3. Once an area is chosen and typed into the code, one only needs to click "Run" on the top-left portion of the site. Overpass will then load the extracted data on the right side of the screen, arranged in alphabetical order and with duplicates (i.e., exact same strings) removed.

I managed to tabulate the data from NCR's 16 cities-municipalities as well as Cainta (the municipality in Rizal where I live) in a Google Sheets file (see §7.2). The median number of streets for each city in NCR hovers around the 1,500 range, with QC being the highest with 5,136 and Navotas being the lowest with only around 200 streets.

The extracted data sets seemed to be plausible and accurate, with the exception of Manila and San Juan which faced the problem I mentioned above. At this point, there were a few more issues with the data sets that still need to be cleaned up due to how the code is designed, which I have listed here:

- Paths (streets, sidewalks, trails, and other channels in which people travel) are all tagged as "highway" in OSM; these include major and minor roads, slip roads, and non-car roads like named footpaths and staircases, so these are also included in the data set.

- Foreign streets: some streets from abroad might still make its way to the data set because of the same area name existing in some other country.

- Duplicate streets: the code already removes exact string duplicates, which is useful because OSM sometimes has two labels for long major streets or streets intersected and cut by another wide street; what does not get filtered out are other types of streets with the same name (e.g., Katipunan and Katipunan Extension), and "synonyms" that actually refer to the same thoroughfare (e.g., Anonas Avenue and Anonas Road).

- Alphanumeric streets: numbered and lettered streets are tricky because of their ubiquitous cardinal naming (e.g., K-1, K-2, Alley 1, ... Alley 30).

- "Informally" named or variably spelled streets: some streets also stand out due to how they are named or orthographically spelled, which perhaps may be a result of the idiosyncratic orthographic choices of the contributor (e.g., some streets are enclosed in double quotes (" "), some streets are in uppercase, some streets are just misspelled).

- There are also instances of streets, usually major ones, crossing or going across boundaries of two or more cities in NCR (e.g., EDSA). These streets are included in the data set of each city they pass through. This may also explain why in some data sets, streets that are "officially" part of one city are also included in other cities (e.g., some streets of Cavite are included in Muntinlupa's data set simply because they pass through Muntinlupa).

I then singled out the list of QC streets on a separate spreadsheet in its own column, henceforth called "unique list" (see §7.2). Next, I had to deal with the issues I listed above for the list of QC streets. First, I had to separate duplicate (i.e., same name,

different type) streets from the unique list into separate columns based on their type (e.g., "Katipunan" remained in the unique list, yet "Katipunan Avenue", "Katipunan Extension", and "Katipunan Road" were separated into their respective columns of "Avenue", "Extension", and "Road"). I decided to keep the street name without a type, if ever it had duplicates, in the unique list because I deemed that the specific street name was what is important for the analysis and typology, rather than its generic type. The following types were separated from the unique list into their own respective columns if they had a type-less duplicate in the unique list: (a) street, (b) avenue, (c) road, (d) extension, (e) lane, (f) interior, (g) bridge, (h) alley/aisle, (i) exit/gate, (j) tunnel/underpass, (k) loop/circle/rotunda/bend, (l) service/access/bypass road, and (m) boulevard.

Second, by giving each street name a quick background check (Google search and OSM search) to confirm that they were indeed a street in QC and not some other place, I manually removed foreign streets from the unique list.

Third, since non-street places were also included in the list, I had to separate these from the unique list into their respective columns as well. These included: (a) footbridges/-footpaths/bike lanes, (b) compounds, and (c) actual places. Actual places included subdivisions, gated villages, areas, courts, colleges, malls, offices, business establishments, plazas, parks, and other public places. Curiously, these places were extracted by the code from OSM, and I surmise that this is because they are tagged as "paths" in the database simply because they did qualify as paths (channels of movement), just not as the streets I am looking for.

Then, once these duplicates and non-streets were separated from the unique list, I had to perform a spelling and orthography check on each remaining entry on the unique list. Meanwhile, I decided to retain in the unique list the following: alphanumeric streets, streets that had variability in spelling and orthography (but were not misspelled), and streets that belong and run along other cities besides QC (e.g., EDSA).

After cleaning up the unique list, it ended up having 3,957 unique entries of street names. The next step was to then categorize the remaining entries in the unique list into their respective category in the typology. I owe Perono Cacciafoco and Tuang (2018) and the four (4) main categories of odonyms they identified in my own identification of four emerging main categories: (a) Eponymic/Commemorative, (b) Cultural, (c) Thematic/Associative, and (d) Descriptive. I had then made a separate spreadsheet for each of the four major categories (which will be discussed further in the next section of the paper), and within each spreadsheet were columns for each subcategory also differentiated by the language of the street name (see §7.2). Sorting each individual entry of the 3,957 one-by-one was made tedious by the fact that a brief background check was also done for each odonym before they were categorized. This was to know and ensure the meaning and category of each street name. To illustrate, it was not apparently obvious for some names that they were names of local mountains in the country, or that some were actually English names for flowers, et cetera. Ensuring the meaning of each was crucial for a reliable tally and typology.

After each entry was categorized into their respective categories, quantity and quality checks were done to ensure accuracy. I had to make sure that the total number of entries for all the categories and subcategories added up to 3,957, and I also had to ensure that

there were no misplaced or missing entries. These are done through functions in the spreadsheet and through a comparison with a base copy of the unique list. Lastly, I tried to specialize and narrow down my categorization and typology of the odonyms as much as possible and as long as it remained practical and purposeful.

After each entry was categorized and accounted for, it was time to run down and crunch the numbers and percentages with the help of the features and functionalities of Google Sheets, the results of which will be discussed and analyzed in the next section.

4 Quezon City Odonymy and Data Analysis

In this section, I discuss the typology of street names in Quezon City after following the procedures discussed in the previous section. Ultimately, street names in Quezon City can be said to belong to four (4) main categories: (a) Eponymic or Commemorative, (b) Cultural, (c) Themed or Associative, and (d) Descriptive. Each of these categories have their own subcategories and further delineations. These categories can also be seen as "naming practices" used by those with authority over the urban spaces of streets, be it by the local government units or private stakeholders (Perono Cacciafoco & Tuang, 2018). In the end, however, the typology and categorization are not so clean and clear-cut, as the categories often overlap and thus can be homogeneous; this is a reflection of how various naming practices are often simultaneously employed in naming streets.

4.1 Tally of Total Streets, Duplicate Streets, Non-streets, Removed Entries, and Unique Streets

According to the particular configuration of code I entered on Overpass Turbo, there are 5,136 named streets total in OpenStreetMap's Quezon City. However, this number was whittled down to 3,957 uniquely named streets after the separation of non-streets and duplicates and the removal of some entries. The breakdown of the total generated list is shown in Table 3.

Duplicates include streets with the same SPECIFIC NAME but different GENERIC TYPE; only one entry was retained in the unique list for each set of duplicates. Non-streets like footbridges, compounds, actual places, and mall driveways were also separated from the main list.

4.2 Orthographic Variations and Language of Odonyms

The following orthographic variations were causes for entries to be removed, as long as they are proven to be incorrectly spelled by cross-checking in Google Maps and that their correctly spelled form was also in the list (extra, missing, or incorrect characters are enclosed in brackets):
- typological errors and spelling mistakes: Alma[g]i[c]a, Cathe[i]rine, Don Vi[n]cente, Dunh[u]ill, E[x]ekiel, Grec[ ]io, [L]guerra Drive, Luis[ ]to, Matt[ ]ew, Mel[e]guas, Polar[ ]s, Sagit[ ]arius, Saint Philip[p], Sap[ ]hire, Stan[d]ford, Sul[a]tan Kudarat, Tangui[t]e, Soccor[ ]o, Wal[l]nut, Zuzuar[ ]egui

Table 3

Tally of Total Streets, Duplicate Streets, Non-streets, Removed Entries, and Unique Streets

Total number of streets in QC generated by Overpass code		5,136
Total number of duplicates and non-streets separated		1,179
Generic type	Street	470
	Avenue	63
	Road	54
	Drive	80
	Extension	155
	Lane	35
	Interior	19
	Bridge	4
	Alley/Aisle	23
	Exit/Gate	6
	Tunnel/Underpass	5
	Loop/Circle/Rotunda/Bend	24
	Service/Access/Bypass/Slip Road	20
	Boulevard	2
Non-streets	Footbridge/Footpath/Bike Lane	39
	Compound	48
	Actual Place/Mall	66
Removed	Removed typos, non-streets, and non-places	66
Uniquely named streets in QC after cleaning and filtering		3,957

- the use of "n" over the letter "ñ": Osme[n]a, Do[n]a Juliana, Santo Ni[n]o
- missing period (.) and spacing: A[] Bonifacio, E.[]G. Fernandez Street, J.[]P. Rizal
- unnecessary use of dash (-): Biak[-]na[-]Bato, Mapagkawang[-]gawa
- incorrect capitalization: Gumamela [s]treet; Ilang-[i]lang; Ipil-[i]pil
- unnecessary spacing: Dap[ ]dap (no space in between); Waling[ ]Waling (dash in between)

Also removed were places, segments, and junctures that are not specific enough to be relevant, like:

- brand chain stores: chery, dkny, Nobilitys
- other non-streets: basement parking, basement parking exit, Pay Parking, Pedestrian Crossing, Pedestrian Overpass
- street segments: EDSA-Quezon Avenue, NLEX Segment 8.2, Skyway Ramp

There were also some streets that had variations in spelling, but were kept in the unique list because it is the name of the actual street:

- "Bougainvilla Street," "Bougainvillea Street," and "Bouganvilla" are all distinct streets in different areas
- "Poinsetia" and "Poinsettia"
- "Blue Bird" and "Love Bird" as opposed to "Bluebird" and "Lovebird"

There were also some entries that were entirely capitalized and kept in the list (e.g., GURAMI DRIVE, TILAPIA DRIVE). These belong to the same area and were probably

contributed by the same user. Aside from these, the standard orthography and structure of the odonyms follow the two-part structure, with only the first letters of each word capitalized. However, the form in the generated list may not be the form in the actual street sign, which typically capitalizes the entire name for visibility and clarity.

Table 4
Tally of Street Names by Their Language

Language	Number
Spanish	114
Filipino	469
English and Other Foreign	1,485
Arabic	1
Nominal or Eponymic	1,560
Uncategorized	328
Total	3,957

Odonyms were also classified by language whenever possible, yet not all names were classifiable as some were eponyms, vague, or possibly coined. Researching the etymologies of each name was simply infeasible for this paper. Nevertheless, Table 4 is a tally of the street names according to language. It is apparent that aside from eponymic streets, English dominates the language of odonyms, despite and contrary to the goals of official guidelines.

4.3 Emerging Typology and Categorization

Four main categories emerged from the unique list of 3,957 entries, each with their own subcategories. This can be considered a typology of the streets in QC according to their semantic content. The tally and breakdown of this typology is shown in Table 5, with the main four highlighted.

The next portion of the paper goes through each category and its subcategories and explains the reasoning and justifications behind each. I explain what kinds of names are subsumed under each (sub)category.

4.3.1 Eponymic/Commemorative (1,285)

The first main category is composed of eponymic (i.e., named after a person) and/or commemorative names. Making up nearly a third (32.6%) of QC's street names, included here are odonyms after personalities, forenames and surnames, groups, and historical events.

Particular Titled Person/Specific Full Name (523)   The street name is considered a full name if it takes one of these three forms:
  • [FORENAME] + [SURNAME]
    e.g., Betty Go-Belmonte Street

Table 5

Typology and Tally Per Category

Uniquely Named Streets in Quezon City	3,957
Eponymic/Commemorative	1,285
Particular Titled Person/Specific Full Name	523
Single Forename or Surname	729
Group	26
Date	3
Event	4
Cultural	642
Values-based	180
Religious	266
Language-Literary-Heritage	161
Possibly Autochthonous Names	35
Themed/Associative	1,674
Fauna	107
Flora	237
Floral	77
Arboreal/Plant	94
Edible Fruit or Vegetable	66
Local Places	247
Foreign and Borrowed Names	835
Other Specific Themes	247
Temporal (Months, Seasons)	16
Occupational/Governance-Bureaucracy	93
STEM (Astronomy, Chemistry, Geology, Greek Letters)	100
Foreign Mythology	24
Colors	14
Descriptive	356
Geographical	16
Nearby Place or Infrastructure	42
Referential	57
Alphanumeric	241

- [INITIAL/S] + [SURNAME]
  e.g., C. P. Garcia Avenue
- [POSITION/TITLE] + [FORENAME OR SURNAME]
  Some examples of common titles in eponymic street names are General, King, Queen, Scout, etc.
  e.g., Speaker Perez Street

Streets named after personalities, like the individual priests of GomBurZa, are included in this category because although they may be considered under the "Religious" sub-category, they are commemorated more due to their historical significance. Meanwhile, names of foreign saints are not included here as their commemoration is not because of national historical significance.

Figure 1

Pie Chart of the Percentages and Proportion of Each of the Four Main Categories
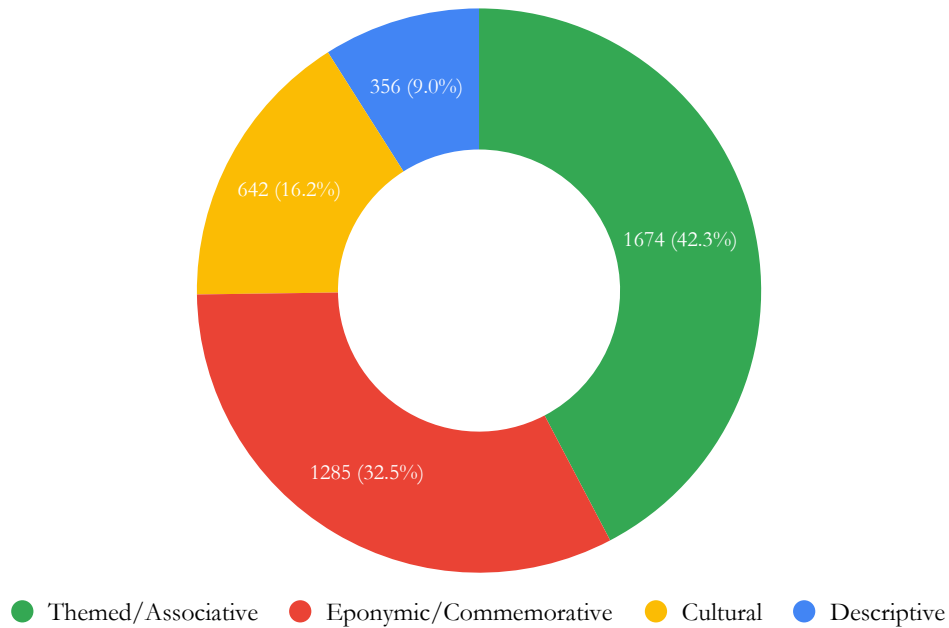
Singular Forename or Surname (729) Street names are placed in this category if they contain only one name, either a forename or a surname, even if the referent person is known by that singular name (like a mononym). Included here then are surnames of notably famous persons, locally and abroad. Also here are singular names preceded by the title "Don" and "Doña", as these titles are not enough to identify the particular person being referred to, unlike the other titles in the previous subcategory.

Groups (26) Included here are popular nicknames for three or more people (i.e., Gomburza), names for indigenous peoples, and war factions and squads.

Dates (3) There are only three streets in QC named after dates, and they are all in Spanish. 19 de Agosto is the birthday of QC's namesake, Cuatro de Julio is celebrated as Republic Day or Philippine-American Friendship Day, and Primero de Mayo is Labor Day.

Events (4) Three of the four events commemorated have to do with the 1898 Philippine Revolution, and one is a battle that happened during World War 2.

A source of ambiguity in categorizing names is due to some also belonging to the Thematic/Associative category, that is, some areas in QC have streets named after themes

Figure 2

Percentages and Proportion of the Subcategories Under Eponymic/Commemorative

523 (40.7%)

729 (56.7%)

● Singular Name ● Particular Person/Specific Name ● Group ● Event ● Date
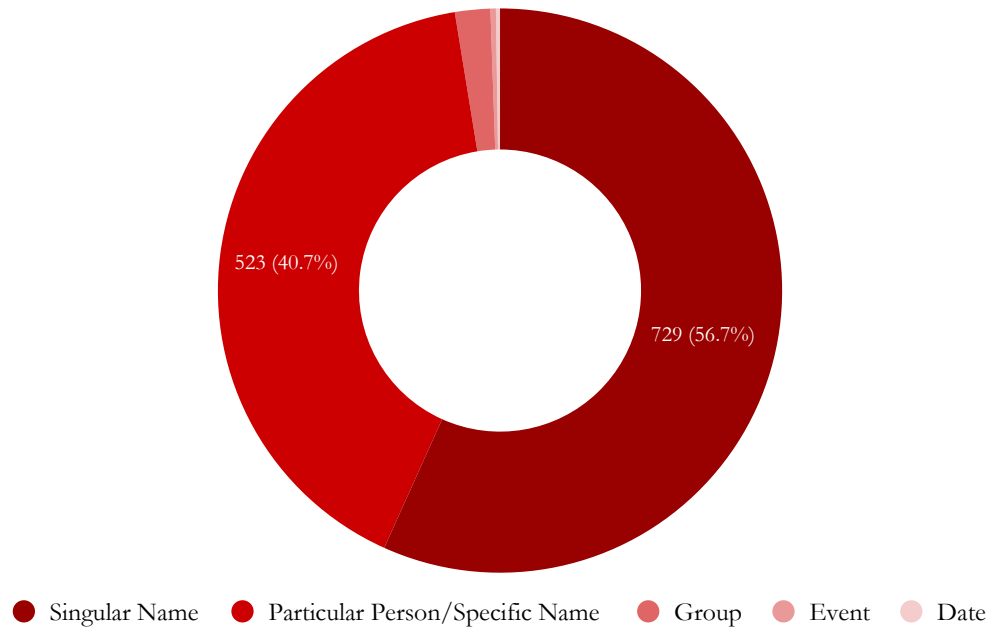
like "popular foreign artists" or "popular scientists." Ultimately, I considered the commemorative factor of eponymic streets over their being part of an overall theme. Eponymic streets normalize the popularity and historical significance of their namesake, and they celebrate the contributions and relevance of persons without elucidating (Azaryahu, 1996). Moreover, the inclusion of a title in the street name highlights that particular role of the person in life and history, perhaps even invisibilizing their other roles and characteristics; the absence of titles for some names makes their significance even easier to forget. Similarly, initializing some parts of a figure's name emphasizes the spelled-out name, and helps how that person is remembered by in public consciousness. Finally, this paper misses out on the opportunity to distinguish each name or personality by gender due to feasibility constraints. Doing so may reveal whether or not one gender dominates the cityscape text over the others or the presence of gender inequality in commemorative practices, as in Oto-Peralías (2017).

4.3.2 Cultural (642)

The second category is composed of what I deemed as street names that are cultural in nature. These include values-based or -laden names, religious allusions and figures, heritage and language-related names or those associated with the country's literary tradition, and possibly autochthonous names (i.e., indigenous names for the area).

Figure 3

Percentages and Proportion of the Subcategories Under Cultural
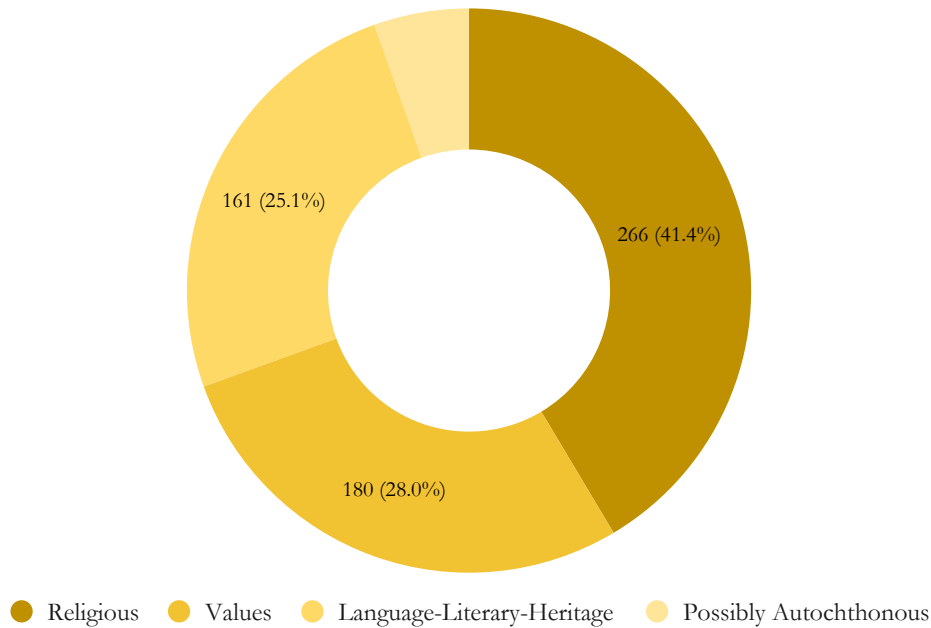
Values (180)   Included here are abstract ideas, ideal traits, or perhaps underlying aspirations of the street-namers for its inhabitants. This subcategory is differentiated into three languages: Spanish, English, and Filipino. There are only five (5) Spanish entries (all belonging to one subdivision), while the English count (58) is doubled by Filipino names (117), which mostly take the word form affixed by *ma-* and *ka- -an*. These entries range from personal characteristics (e.g., Kagandahan, Friendly) to community-based values (e.g., Mapagkawanggawa) to ethos of the national scale (e.g., Kaunlaran, Freedom). Although unfortunately outside the scope of this paper, it is also important to ask whose values these exactly belong to, and how they may be arranged ranging from conservative values to more progressive ones in line with contemporary value systems. Religious values are placed in this subcategory as well.

Religious (266)   Expectedly, streets named after religious items, allusions, and hagionyms favor the city's (and country's) majority Christian population. Included here are names of people, places, and events in the Bible, names of contemporary Filipino religious practices and fiestas, hagionyms and names of disciples, and names and titles of God and Jesus Christ. There are religious street names in Spanish (100), in English (146, mostly hagionyms), in Filipino (18), and only two (2) are Islamic. An ambiguity encountered in categorizing is when a hagionym is now also an eponymic place name elsewhere in the country (e.g., San Fernando).

Language-Literary-Heritage (161)   This is a broad subcategory encompassing language-related, literature-based, and Philippine heritage-associated street names. There are six (6) names that are in Spanish which fit here better than in any other category, as they are also Spanish phrases and remnants of Spanish occupation. Allusions to popular Philippine literature and genres (11) are here as well, including characters from folk epics and tales. Under heritage, sixteen (16) streets are named after Filipino parlor games, folk songs and dances, and festivals. One (1) street is named after the Arabic writing script Diwani. Yet a big chunk (127) of this subcategory are Filipino words which do not seem to be thematically related or patterned but are nevertheless aspects of Filipino culture. The overlap of categories is also apparent as some street names categorized here are also closely related to values and religious concepts.

Possibly Autochthonous (35)   Included here are possible autochthonous toponyms reused as odonyms of the same area. I placed here street names whose meanings and etymologies are not so obvious and cannot be ascertained through only brief preliminary research. These names are under the Cultural category because, if ever they are indeed indigenous toponyms and terms, they would have enough historical rootedness to also be culturally salient; indigenous place naming is part of cultural heritage after all.

4.3.3 Themed/Associative (1,674)

The third main category is the largest of the four. These are street names named in accordance with a particular chosen theme, which are also neither commemorative nor culturally salient enough. This category also contains the most subcategories.

Fauna (107)   Plenty of streets in QC are named after animals. There are 66 in English and 41 in Filipino. Fishes and birds seem to be the most represented animals in both languages.

Flora (237)   The subcategory of streets named after plants and vegetation is further subdivided into three. Those placed in Floral (77) are non-fruit bearing flowering plants and trees; English names (59) outnumber Filipino flowers (18). Those in Arboreal/Plant are trees with large trunks that do not bear fruit; also here are names that have to do with wood and tree parts; Filipino trees (61) exceed English ones (33). Lastly, those in Edible Fruit or Vegetables (66) are apparent, these are the fruits, vegetables, and other harvests from plants and trees; Filipino names (48) also outshoot English ones (18).

Local Place (247)   This subcategory includes streets named after contemporary local places. Language was not an important distinction here as these are eponyms and name transfer is common (Brink, 2016). Many entries are named after provinces, dams, mountains and volcanoes, islands, and popular tourist spots in the Philippines. This category is separated from Possibly Autochthonous because not all contemporary local place names are indigenous, some bear obvious influence from the country's colonizers.

Figure 4

Percentages and Proportion of the Subcategories Under Themed/Associative
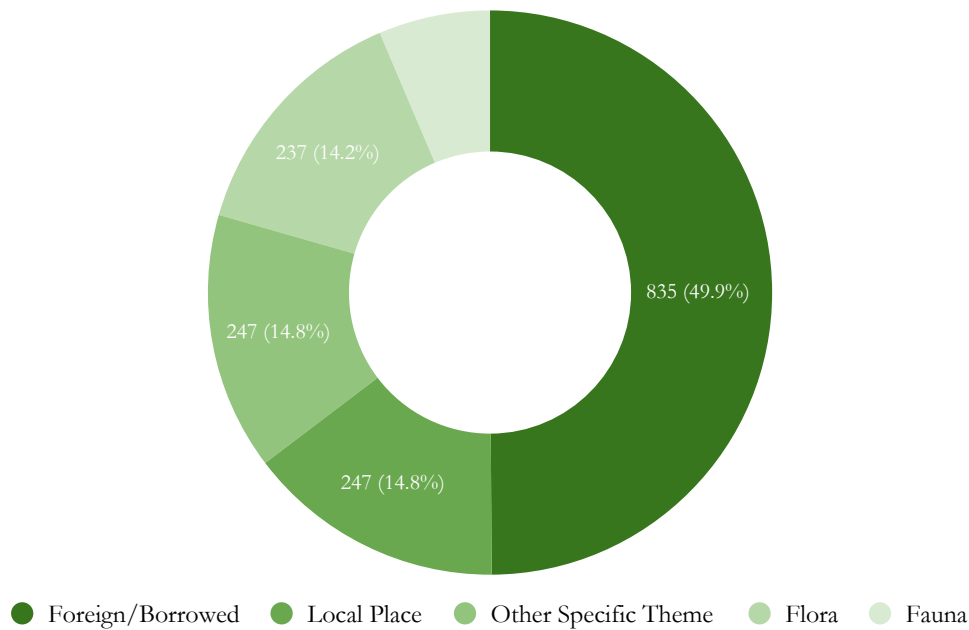
The biggest ambiguity encountered here was that many contemporary local places are also eponymic to begin with (typically originating from Spanish occupation), some even named after saints or historical personalities, so a bit of overlap was unavoidable.

Borrowed/Foreign/Residential (835)   On the other hand, a large chunk of thematic and associative odonyms are borrowed (usually from English) and foreign names transported to typically residential villages or gated subdivisions with themed street names. Many entries here are compound words formed by a color or adjective (e.g., Green, Bright), followed by a word for landforms or waterforms (despite having none in the proximate area; e.g., hill, river), then by an optional GENERIC TYPE (e.g., drive, lane). These streets with seemingly vague or coined origins are residential, and reflect what Brink (2016, p. 3) calls geographically transferred "vogue names." These typically spread as a sort of fashion and are meant to convey the named area's prestige rather than any truthful semantic message. Similarly, plenty of the streets in this category are named after foreign brands, like cigarettes and automobiles, and foreign cities, states, and provinces.

Specific Themes (247)   Finally, subsumed under this category are other themed streets whose quantities are non-negligible and warrant a separate subcategory. These are:
- temporal names having to do with months and seasons (16)
- occupational names related to jobs, work, government office, and bureaucratic processes (93)

- names related to the STEM field, in particular, astronomy (celestial bodies), chemistry (elements and matter), geology (rocks and gemstones), and greek letters (e.g., alpha, gamma) (100)
- foreign, though mostly Greek, mythology (24)
- colors (14)

Perhaps it is unsurprising that themed odonyms populate private, middle class, residential streets. If the goal of private stakeholders and homeowners was to exhibit prestige and maintain a sense of unity or community among solitary gated housing, themed and associative toponyms certainly help in projecting an idea of "oneness" and interrelationship among its inhabitants.

4.3.4 Descriptive (356)

The last main category comprises odonyms that describe or are described by something in their immediate surroundings, be it a geographic landmark, a nearby place or infrastructure, or other streets. These are also the least in number.

Figure 5
Percentages and Proportion of the Subcategories Under Descriptive
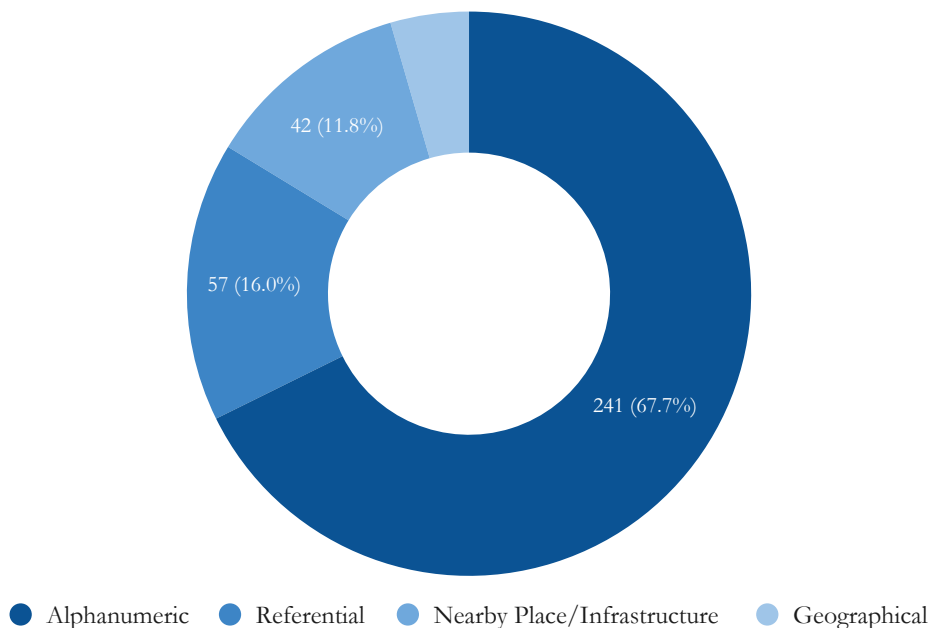
Geographical (16) Perhaps the most descriptive, these odonyms are named after the notable geographic occurrences in or characteristics of their immediate vicinity. However, I must maintain that the reading of these street names is remote from the actual streets,

so all evidence used to ascertain that odonyms belong in this category are culled from its name alone; there may be inaccuracies but these are not due to the evidence. Mostly, this is the presence of the suffix *-an* in Filipino names (12) that signify a place where the suffixed stem occurs or is plenty (e.g., Santolan 'place of santol (fruit)', Manggahan 'place of mangoes'). A few entries are odonyms named after nearby creeks. And some appear to be describing the land of the area (e.g., Damong Maliit 'small grass') or the shape of the road (e.g., Elliptical Road).

Nearby Place or Infrastructure (42)   These are streets named after a proximate prominent government office, private institution, building complex, barangay, district, village, or national highway. They typically take the form of [institution acronym] + [generic type].

Referential (57)   These streets are referential because they are "defined" or identified in space with relation to other streets in the area. These are directional streets with reference to others of the same name and type. Street names containing any of the words "north," "south," "east," "west," "lower," "upper," "central," or their Filipino equivalents are placed here.

Alphanumeric (241)   Similar to the previous subcategory, alphanumeric streets are identified in space relative to the other streets in their vicinity. These are typically ordered in a predictable sequence or series. Every numbered and/or lettered street is placed here.

Overall, there were various sources of ambiguity that were encountered in the process of categorizing. Most of these can be debased to the polysemous character of some names and odonyms. When it comes to eponymic odonyms where street names are named after places and are also named after some other thing or person, it essentially becomes a chicken-or-the-egg problem: which name came first? The issue is then reverted back to a historical one. Furthermore, commemorative eponymic street names can also be cultural, or they can belong to a theme and be associated with other names, or they can describe or pertain to something within the vicinity (like a statue or monument), and vice versa. There arises a possibility that one single street name can be argued to belong to all four main categories of my typology, or even none of them. These ambiguities and challenges only emphasize the fact that the typology and categories can be homogeneous, semipermeable, and overlapping just like the motivations behind naming practices. It must also be pointed out that the typology outlined here is the result of much mental strain inevitably infused with my own subjective value judgments.

5 Conclusions and Recommendations

This paper described and discussed the odonymy in the Philippines' Quezon City (QC). A list of 5,136 street names in and through QC was generated from the database of

OpenStreetMap (OSM) and arranged into a list or index. From this number, duplicate entries, non-streets, and other erratic entries were first separated from the list to produce a list of 3,957 unique odonyms. Then from this unique list, remaining entries were categorized into four main categories of street names that emerged: (a) Eponymic or Commemorative, (b) Cultural, (c) Themed or Associative, and (d) Descriptive. It was found that a third (1,285) of streets in QC were eponymic or commemorated a significant person or event in the country's history. Six hundred and forty-two (642) streets were related to some aspect of Philippine culture, heritage, religion, and values system. Street names that were themed or had semantic associations with one another were most in number at 1,674. And street names that described its location or a nearby landmark numbered at 356. These four, with their respective subcategories, also serve as a typology of odonyms and represent a tradition of street naming practice in QC (Perono Cacciafoco & Tuang, 2018). However, it must be noted that these types and categories have overlaps due to the interplay of polysemy with their usage as eponyms throughout history, reflecting as well the simultaneous deployment of various naming motivations and strategies.

Moreover, these odonyms were also classified according to their language. It was found that among the classifiable odonyms, English and borrowed words were most represented in the city-text at 1,485 unique streets. There were only 469 street names in Filipino, while a decent number were in Spanish at 114. Eponymic street names dominate the proportion of odonyms at 1,560. Furthermore, the odonyms generated from OSM had their fair share of orthographic variations in capitalization, spacing, use of punctuations, and initialisms.

From the typology and quantities of each category alone, we can say that odonyms may indeed evince some of the naming motivations behind them. The prevalence of eponymic odonyms reflects the politics of commemorative naming practices and conveys the state's official narrative and agents of history (Azaryahu, 1996). The presence and widespread use of local toponyms and culturally related names at the very least show an appreciation for the country's culture and heritage and may even be educational. The use of certain values and traits as odonyms appear to certify which ones are ideal for and expected from the model citizen and Filipino, and the dominance of Christian (in particular, Roman Catholic) odonyms matches the city's predominantly Christian population, perhaps even to the marginalization of other religions and denominations. The usage of animals and plants as odonyms also indicate an ecological and environmental consideration in the naming practice, as some streets may be named after species that existed in the region at least at some point in time. The preponderance of what Brink (2016) classifies as transferred vogue names, i.e., those that are foreign, coined, and typically borrowed from English, are meant to display prestige and associate a positive image to the area. Lastly, alphanumeric odonyms are the most practical, only functioning to organize the city's space; I hypothesize, however, that these streets are prime candidates for potential renamings in the future.

Furthermore, the preponderance of odonyms and borrowed vogue names in English may reflect several emerging characteristics of QC as an urban city (Pante, 2019). First, the appearance of odonyms named after nearby media and government institutions,

malls, and other consumerist hubs signifies the expansive commodification of its spaces that is taking place and the expanding role of the city as a center of sociopolitical activity in NCR. Second, the rise in number of the city's English-educated middle class coincided with, or indirectly caused, the outgrowth of suburban residential enclaves within the city. These zones project themselves as exclusive and prestigious spaces which utilize the upward social associations of English, through its toponyms and odonyms, in order to attract more potential homeowners and stakeholders. Lastly, Pante (2019) also notes QC's recent goal and strategy of developing and branding itself as a global city, which entails marketing itself as a metropolis capable of competing in the neoliberal urbanism happening in other global cities. The wide usage of the global lingua franca of English in its street names, despite a predominantly Filipino-speaking population and contrary to its own guidelines, reflects this attempt towards a globalist orientation.

Overall, it is unsurprising that public roads and national highways are named after those which the state deems significant and relevant to the country's history and project of nation-building (NHCP, 2011), while private and residential street names reflect prestige and project a sense of unity, community, and organization to attract potential residents and capital. From the mere presence of odonyms and the semantic and semiotic content they carry, we can thus read the cultural and political ethos of policymakers, urban planners, and citizens.

5.1 New Directions

The paper and its findings on QC's odonymy serve to support existing literature on toponomastics and odonymy elsewhere. It can be situated in between odonomastic studies that deal with the semiotic significance of street names and those that treat the odonym as a useful statistical indicator of other sociocultural factors. It also hopes to simultaneously situate QC within toponymy and urban studies around the world and populate the Philippines' own literature on toponymy.

There is still much to be explored and cultivated in this field. At the very least, this study can serve as a springboard for future work on toponomastics and odonymy in the Philippine setting. Future work can develop the literature in two directions. The first is widening the scope of such odonymy and typology-making to include other cities within and outside NCR. Other urban centers in the country and smaller still-urbanizing cities in provinces are both interesting fields. A larger mass of quantifiable data can also be more reliable and useful as statistical correlates or indicators, like in Oto-Peralías (2017). However, there is always a need to account for sample size and the particularities of a chosen geographic area. This paper only takes frequency, for example, and there is still potential in treating QC's nearly 4,000 unique odonyms in a more statistically useful manner. Furthermore, a comparison of the typology and its quantities with those of other cities is also intriguing; due to time and space constraints however, this study unfortunately misses on the opportunity to compare its odonymy with those of Oto-Peralías (2017) for Spain, Hsiyan (2020) for Amman, Jordan, and Perono Cacciafoco and Tuang (2018) for Singapore.

The second direction is a localization and closer look at odonyms and other toponyms of districts or barangays. A smaller scope allows for greater focus and precision with the data and information that can be gathered. There are plenty of ways this can be approached: perceptions and perspectives of inhabitants on their odonyms and street naming practices can be gathered, like in Hsiyan (2020); the historical development and stories of individual or clusters of odonyms can be uncovered from interviews or local knowledge; the changes and sedimentation of names for streets and its segments, whether formal or informal, can be studied; and the street sign itself and its presence and interaction with the rest of the linguistic landscape can also be explored.

Lastly, OSM's human element and limitations in its code ended up being factors. While OSM easily generated a list of odonyms, it did so indiscriminately and cleaning up the data it yielded amounted to considerable menial work. The use of official government data and lists as resources remains most preferable if at all they are available. But if not, this paper may have just paved the way towards an administratively useful odonymy and index of odonyms. Regardless, cities and their streets and spaces are still socio-historical constructs that are always "under construction" (Massey, 2005). Streets will always be grazed and rebuilt, destroyed and recreated, and endlessly renamed. The shifting subject of odonymy makes it so that the project itself must also be continuously constructed.

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7 Appendix

7.1 Overpass Turbo Code

Base Code Used in Overpass Turbo to Produce a List of Streets in an Area

```
1  [out:csv("name";false)];
2  area[name="AREA"];
3  way(area)[highway][name];
4  for (t["name"])
5  (
6    make x name=_.val;
7    out;
8  );
```

Code Used in Overpass Turbo to Produce a List of Streets in Quezon City

```
1   [out:csv("name";false)];
2   area[name="Quezon City"];
3   way(area)[highway][name];
4   for (t["name"])
5   (
6     make x name=_.val;
7     out;
8   );
```

7.2 Research Data

The data used in this paper, including (a) the list of all streets generated by Overpass Turbo; (b) the list of all duplicates, non-streets, and removed entries separated from the unique list; (c) the list of all unique street names in Quezon City; and (d) lists of street names in each category, can be found in the public Google Sheets link https://tinyurl.com/L199QCStreets.