# *Countermapping Interventions: (Re-)telling River-Town Map Stories*

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The municipality of Santa is a quaint lowland and coastal-riverine town located off the shorelines of Ilocos Sur in the northwestern portion of the Philippines. It is along the distributaries of the sixth largest river basin in the country, the lower Abra River, and its adjacent delta. Both town and the fluvial channel are exposed to yearly tropical cyclones and seasonal monsoons that annually traverse the island of Luzon, which may cause flooding events and associated flooding experiences in the area. Research on 'nonhuman' bodies tends to be viewed as only influenced by the laws of science, but it is far from such. The more-than-human, such as the lower Abra River exists due to both natural (bathymetry, topography, tropical cyclones and monsoons, and vegetation) and anthropogenic (deforestation, land use/land cover change, and mining activities) factors as dynamic storytellers that involve in (re-)storying of the fluvial – both the river's and the townsfolks' everyday encounters. In this study, I produced imaginative interventions as a form of countermapping traditional knowledge and historical records of the lower Abra River and the townspeople of Santa. First, I made a geonarrative countermap depicting more than 100 years of history of the river-town. Then, I generated an animated geonarrative countermap showing select river-town barangays as an "island" along with

its "island-ness" and its dynamic "tidalism". Lastly, I created a geonarrative map art of my fieldwork participation in the area as I came across these river-town interactions. These interventions reinterpret archival data and cartographic outputs through a series of creative reimaginations, therefore, adding new strata of meaning regarding the life-story of the river and the town as a way of involving myself as a researcher in (re-)unfolding its enduring and ever-evolving river-town geonarratives.

Keywords: *countermapping, Abra River, Ilocos Sur, geonarratives, map art*

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## Introduction

Countermapping presents new and alternative ways of looking at, understanding, and creating maps. Though it may entail the use of conventional cartography and map use, countermapping can encompass any approach or practice which interrogates and challenges mapping and map-making: from the cartographers or map authors, to the audience/readers, and to the cartographic processes and outputs themselves. Stemming from the destabilization of dominant institutional powers that manufacture cartographic creations, it affects how we view and make use of maps and consequently, how we see the world. Countermapping paves the many ways by which maps and mapping can be used in putting a spotlight on other realities and possibilities often blurred out or erased from standardized and conventional cartographies.

In this paper, I explore countermapping as a method to present creative reimaginations as an artistic expression of the geonarratives of a particular river-town entanglement, specifically that of the lower Abra River and the municipality of Santa, Ilocos Sur. In 2021, I wrote a graduate thesis examining the ever-transforming morphology of the lower Abra River and how geomorphological adjustments to the river lead to the subsequent adaptation measures of the Santa townspeople. I generated more than 50 maps for my research as supporting images for my arguments and hypothesis. To create these maps, I used ArcMap (a Geographical Information Systems (GIS) software), considered the premier mapping tool by mapping professionals and practitioners. All these maps were strictly regulated to comply with set scientific standards.

Inspired by the dynamic relationship between the lower Abra River and the deltaic communities of Santa, the various participatory countermapping initiatives of the UP Diliman Department of Geography, and the Geog 293

(Cultures of Mapping and Countercartographies) graduate class, I go through the potential of non-standardized, non-institutionalized, and non-traditional interventions in the process of producing alternative maps based on my existing data. I express novel means of mapping the geonarratives of a river-town lifeworld through select creative interventions. Likewise, these interventions are not from random personal choices but are based on developments in countercartographies.

## Related Research

### *Countermapping, Countercartographies*

The origins of countermapping and countercartography began with Nancy Peluso (1995) who first coined the term "counter-mapping" to illustrate the grassroots-level map-making practices of indigenous peoples living in the rainforest territories of Kalimantan, Indonesia. Leila Harris and Helen Hazen (2005) in their research elaborated on the term, stating that countermapping involves any method or practice that probes into any biases or assumptions presented by mapping conventions. It is also about the contestation of dominant forces responsible for map-making, thus challenging the prominence of the power brought about by maps (Harris and Hazen 2005). Peluso (1995) elaborated on how trends in participatory politics and management strategies in the late 20$^{th}$ century entitle local people to gain access to the tools of powerful institutions; in the case of Kalimantan, the maps and mapping technologies created by, and for, the State international resource managers and planners, were taught to and used by the locals to gain legitimacy and acceptability to their land claims and resources (Peluso 1995, 400).

Craig Dalton and Tim Stallman (2017) also mentioned that countermapping makes use of map-making practices that are not following the set standards imposed by powerful institutions such as governments or corporations – whose methods follow a top-down approach geared toward favorable outcomes on their part. Countermapping may be a response to bureaucratic and institutionalized practices in map-making, however highlighting the prefix "counter" limits the multitudinous ways in which mapping can be creative, imaginative, and innovative, among many others (Dalton and Stallman 2017). It is important to stress that countermapping combines both theory and practice to initiate the search, exploration, realization, and innovation of various alternatives and realities to mapping and map-making (Dalton and Stallman 2017).

Countermapping in the Philippines has been present for the past few years. Vanessa Banta (2017) explored participatory countermapping and performance to express empathy. Countermapping was carried out in Sitio San Roque, Quezon City by the active participation of the author, students, colleagues, residents, volunteers, and allies to create various itineraries into places and bridging spaces to cast new and better comradeship among all participants.

Arnisson Andre Ortega et al. (2019) employed art and pedagogy in participating, collaborating, and engaging with communities through countermapping. Artists can create maps and other cartographic arbitrations to discuss, for example, power dynamics and control, hegemony and violence, and resistance and memory (Ortega et al. 2019). Countermapping can also be applied as a pedagogical approach to the advancement of participatory action projects that aim to foreground the plight of marginalized communities, like in the case of the urban and rural communities of Sito San Roque and the fight against land contestations of the farmers of Hacienda Luisita in Tarlac (Ortega et al. 2019).

Ma. Simeona Martinez and Joseph Palis (2021) also argued that artistic outputs, such as art maps and countermaps, can serve as countercartographic and/or new cartographical interventions that give possibilities of revealing the habitus and voices of those who are excluded and at the peripheral. The authors expounded that these artistic countermappings aid in the diversification and deepening of the understanding of what maps and cartography are, which further allow the (re-)examination of the structures that define how the world is represented and regarded (Martinez and Palis 2021). Not only can countermaps and map art be interpreted through their symbolic and textual contexts but they can also be analyzed through the processual facets of creating (or art-making) artistic interventions. The importance of art and mapping are their emancipatory workings that assent to noticing the unnoticed (Martinez and Palis 2021).

*Map Art: Map or Art?*

Denis Wood (2006) started with the discussion on standardized maps as maps with "masks of neutrality". Maps contain intra- and extra-significant codes that make maps "trustworthy" or "objective". According to Wood (2006), it is this "impartiality" and "detachment" that makes a map a map. As a response, Wood (2006) discussed how artists can create map art as a countermovement to "masked" maps. Map art is world-making other than obeying the mappings of standardizing mapping institutions by denying authority asserted by normative maps. Artists can rework maps by "removing these masks of neutrality" that they can expose, or by "not putting on" these masks on maps, thus permitting "unmasked" discourse into maps (Wood 2006).

Mark Denil (2007) argued against Wood (2006) in the author's discussion on map art. Denil (2007) pointed out that all maps inherently wear masks to signify credibility and reliability to implore acceptance from particular viewers. Denil

(2007) added that the "mask is the map", as no map is created nor envisioned without a mask. A map ceases to exist as a map if this mask is taken away, though the mask may be swapped with another mask depending on the target audience (Denil 2007). There is no difference between maps and map art as map-making is a recognizable art practice (Denil 2007).

In analyzing both cartography and art in the 20th century, Denis Cosgrove (2005) mentioned that the "epistemological distinction between the art and the science of mapping is comparatively understudied" (Cosgrove 2005, 51), and in contemporary times, the linkages and interconnections between the practice of art and science also remain relatively untapped. Cosgrove (2005) contended that in the past decades, the role of aestheticism in scientific images (and that includes maps) in research perform a vital part in conveying scientific truths. At the same time, artists from the Modern Art movement began rejecting aesthetics as the clear-cut characteristic of their artwork, instead, asserted on the artists' process of creating – may it be innovative, exploratory, evocative, provocative, or ingenious – all of which are mutually shared by both the arts and the sciences. Cosgrove (2005) projected that instead of directing on maps themselves, the relationship between art and cartography of today should be examined through the process and practice of mapping; that is, maps should be analyzed on how they are positioned and implemented in both the arts and the sciences.

Questions on whether mapping is a science or/and art, who (can) make/s map art (an artist? a cartographer? both?), and wherever the boundary between maps and art lie, continues to be open for discussion. As Cosgrove (2005) revealed, the discourse on the relationship between the science and art of mapping should not be confined to cosmopolitan definitions of "art" and "science". There will always be an ongoing intricate exchange between art, cartography, and science that can be

considered through changing art and science practices, innovations, and technologies of mapping.

*(Re)defining Geonarratives*

Studies referring to geonarratives would start with the definition written by Mei-Po Kwan and Guoxiang Ding (2008). They explained that "geo-narratives" is a way of doing narrative analysis with the aid of GIS, which was typically used in performing quantitative research. According to D. Jean Clandinin and F. Michael Connelly (2000) and Susan Chase (2005) (in Kwan and Ding 2008), narrative analysis involved the investigation of people's lives, life events, and happenings at a given time frame. On the other hand, GIS is a computer-aided spatial data organization system employed for conducting various spatial research and was proposed by Kwan and Ding (2008) to be used in exploring narrative analysis. GIS can be valuable in examining qualitative data (i.e., oral historical records, life history documents, and biographical accounts), which diverges from its more customary utility in quantitative undertakings. Kwan and Ding (2008) emphasized that GIS can aid in the investigation of both temporal and spatial aspects of people's narratives. Their pioneering of "geo-narratives" allowed the understanding, emergence, analysis, and adaptation of visuo-cartographic narratives. Ravindran (2020) underscored the significance of geonarratives in recognizing undermined geographies and enabling their cartographic visualizations and interpretations to be embodied.

In discussing geonarratives in this research, I made use of the redefined explanation by Joseph Palis (2022), which revolves around "place-writing". What encompassed geonarratives are particular stories that are subjective that allow consent to the alteration, emphasis, elaboration, interpretation, demarcation, conception, and re/characterization of places. Geonarratives are founded on the

various actualities, encounters, and sentiments specific to the storyteller, which incorporates one's identity politics in their own world-making. As geonarratives can be expressed in a variety of creative methods such as through illustrations, poetry, songs, and the like, they can also be expressed through practice-based geographic outputs, especially by countercartographic mediations and other associated mapping practices. Countercartography puts forward an unorthodox method of conveying geonarratives as it does not abide by State-sponsored and institutionalized mapping approaches, techniques, and technologies. Countermapped geonarratives reveal the expression and manifestation of peoples' suppressed subjectivities ignored primarily by the State or not lined up with institutional affairs – the "unmapping" of what is excluded inadvertently, or mostly deliberately, in cartographic narratives.

Drawing from contemporary countercartographic practices and initiatives, this research explores the potential of creating artistic reimagination by means of (re-)storying the geonarratives of a river and a town through countermapping. Studies involving more-than-human entities would often place them as ancillary characters to people and anthropogenic interventions – with societies portrayed as more dominant over nature rather than coexisting with them. The more-than-human bodies are often designated as supporting roles, backgrounds, or physical settings, with their stories often considered not worth more than that of humans. The role of this research is to give voice to the silenced - the lower Abra River – whose life-story is interwoven with the municipality of Santa, Ilocos Sur in complex connections that flow with other relationalities.

## Contextualizing the River-Town Geonarratives

The municipality of Santa is a quaint lowland and coastal-riverine town located off the shorelines of Ilocos Sur in the northwestern portion of the Philippines. It is along one of the lower distributaries of the sixth largest river basin in the country, the Abra River, and its adjacent river delta. Both town and the fluvial channel are exposed to tropical cyclones and seasonal monsoons that annually traverse the island of Luzon, which may cause flooding events and associated flooding experiences in the area.

In my previous work in the area, I examined the spatio-temporal changes to the lower Abra River morphology by investigating morphometric and morphological parameters of the river. I also investigated how the community has continuously adapted to the changing lower morphology and flooding events through time. To satisfy the core objective of the research, I make use of open-accessed digitized historical topographic maps from 1903-1977 from various American online university library collections in addition to publicly available satellite images from 1989-2016 acquired from the Landsat Program of the National Aeronautics and Space Administration (NASA) and the United States Geological Survey (USGS), to trace the morphological changes of the river through time. Key informant interviews also became one of the essential aspects of the study to identify community adaptation strategies.

Physical and topographic data from the maps were analyzed through visual examination and processed using GIS overlay analysis. I was able to produce 50 topographic maps that satisfied the objective that I was trying to achieve at the time. However, the shift towards geonarratives and creative mediations in this study necessitated the reimagining of these maps not only away from their original purpose, but also from their conventional design. The following section details the

cartographic interventions that I made in telling the story of the river-town lifeworlds.

## Conventional Mapping

As someone with a background in physical geography and environmental science, I began with the practice of creating maps that followed conventional State-sponsored, institutionalized maps and cartographic products as my templates. Based on what I know about maps and how they are typically used in various academic fields, particularly in the natural and physical sciences, maps that follow convention are considered scientific, truthful, and factual. I would follow the basic map elements and standards exhibited by the digitized topographic maps of the Philippines' State mapping institution, the National Mapping and Resource Information Authority (NAMRIA). Looking at its published various cartographic outputs (from topographic maps, hazard maps, to nautical charts), the agency customarily adheres to Western cartographic guidelines. Based on downloadable materials accessible on the official website of NAMRIA, (https://www.namria.gov.ph/download.php#maps), its publicly available topographic maps like in *Figure 1*, are mostly founded on information from the aerial photographs of the US Army Map Service taken from 1947-1953 (Map Series 711 at scale 1:50,000), that were then updated in the late 1970s (Map Series 701 at scale 1:50,000; only encompassing the island of Luzon). Other American-based data referenced in the country's official topographic maps were from the US Army Corps of Engineers and the US Coast and Geodetic Survey (NAMRIA, n.d.). These survey and aerial photo data were mostly acquired as part of the effort of the United States to conduct military surveys and reconnaissance in the Philippines as its former colony (1898-1943). The acquisition of survey data of the

Philippines by the Americans predating the maps from NAMRIA can be seen in *Figure 2*, a base map of the Philippines' northwesternmost shorelines by the US Coast and Geodetic Survey published in 1906.


FIG. 1. *Topographic map of Vigan (1977). From the Map Series 701 of the National Mapping and Resource Information Authority (NAMRIA). Accessed 2019*

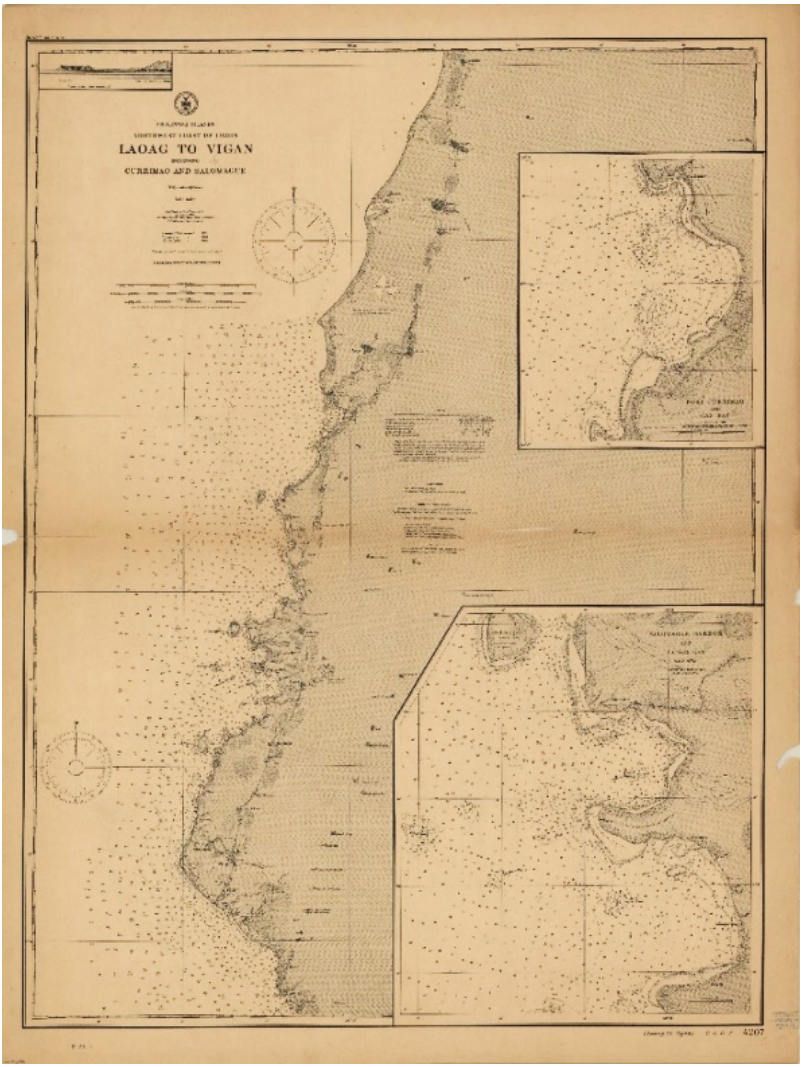


FIG. 2. *Philippine Islands: Northwest Coast of Luzon – Laoag to Vigan including Currimao and Salomague. Published in Washington, D.C. (1906) by the United States Coast and Geodetic Survey. Map from the West Michigan University Online Map Collection accessed 2019.*

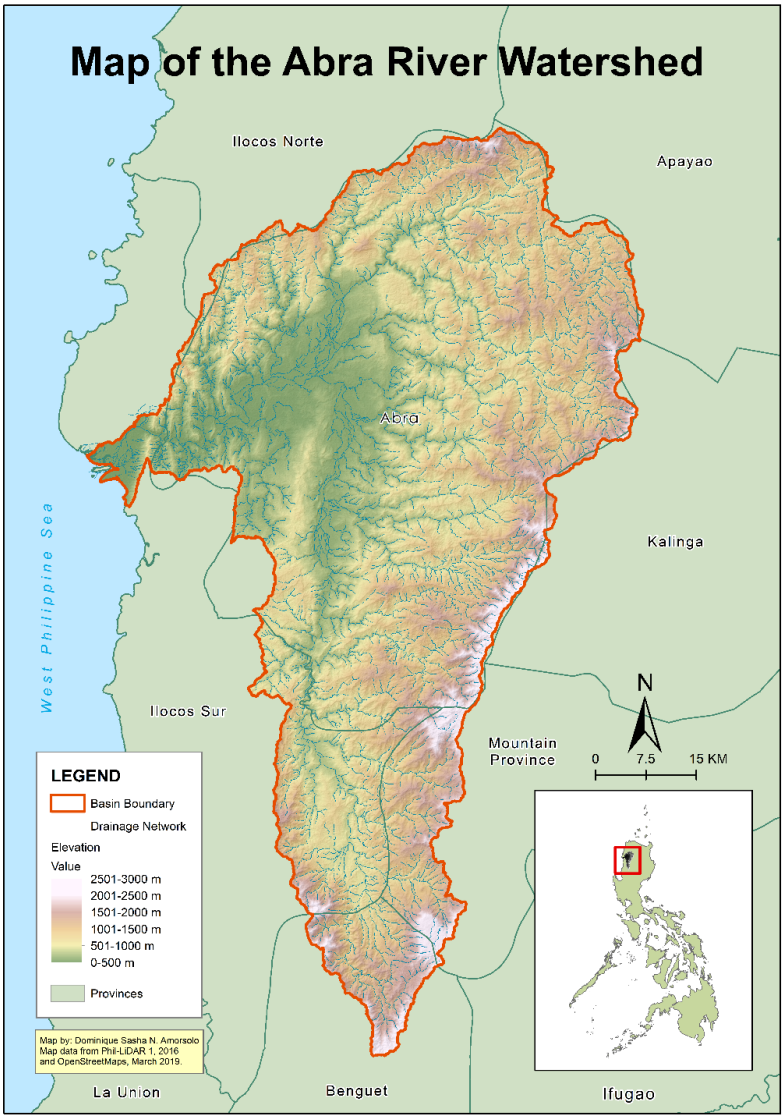


FIG. 3. *The Abra River Basin topographic map. Created by the author, 2022.*

*Figure 3* is an example of a topographic map I created, and it shows the Abra River watershed. Following the objectives of my prior research, the reason for creating a map of the watershed was to provide a visualization of the topographical extent of the river basin – the expanse of the fluvial network of the river, the elevation profile of the area, the provinces surrounding the watershed, the basin's adjacency to the West Philippine Sea, and the present locality of Santa. The location of the watershed in relation to the entirety of the Philippines is also depicted as an inset map found at the bottom-right corner of *Figure 3*.

Looking closely, it follows the conventional map color scheme and elements a NAMRIA topographic map would have (what Western maps would likely have as well), to make maps that are "meaningful" (Hess and Tasa 2014) and "purposeful" (Bach and Freelan, n.d., in Spatial Analysis Lab, Huxley College of the Environment-Western Washington University 2018):

1. Map title: this serves as a summary of the intention or content of a map (Hess and Tasa 2014);

2. Foreground and background: or visual hierarchy of features and texts, where information that is regarded as "important" must be made placed in the foreground, bigger, given more color, etc. "Less important" data are placed in the background and must be smaller, less visually clear, and the like (Bach and Freelan n.d., in Spatial Analysis Lab, Huxley College of the Environment-Western Washington University 2018);

3. Hypsometric tints: or the gradients of colors associated most commonly associated with topographic features, especially elevation. This has been one of the most favored mapping techniques for any Western-based mapping standards (Patterson and Jenny 2011);

4. Legend: a key that indicates all colors, shadings and gradients, symbols, and other visual devices that are embedded in maps (Hess and Tasa 2014, Strahler 2013, Petersen et al. 2011);

5. Direction (and the north arrow): For the map reader to navigate oneself with accordance to the geographic grid system of parallels, meridians, and specifically to the geographic North Pole (in the case of the north arrow) (Hess and Tasa 2014, Petersen et al. 2011);

6. Scale: is an expression or ratio that compares a measured distance on a map and the actual distance on the surface of the Earth (Christopherson and Birkeland 2018, Hess and Tasa 2014, Strahler 2013, Petersen et al. 2011). This is mostly useful especially in measuring distances and calculating areal extents;

7. Author's name: to know who is/are responsible for the creation of a map (Hess and Tasa 2014);

8. Date created/published: to know when the data were acquired (Hess and Tasa 2014), denoting the authenticity and acceptability of the data collected;

9. Data References: to know where data were obtained (Hess and Tasa 2014), indicating their validity and legitimacy;

10. Map projection: A way of transforming the three-dimensional/solid Earth representation (like a globe) into a flat surface for display (i.e., a map) (Christopherson and Birkeland 2018, Hess and Tasa 2014), to also help in assessing map distortions present (Christopherson and Birkeland 2018, Hess and Tasa 2014, Strahler 2013); and

11. Borderline: the thickest line on a map that marks where the mapped area should end, with the distance between the border and the map equal and balanced (Bach and Freelan n.d., in Spatial Analysis Lab, Huxley College of the Environment-Western Washington University 2018).

For my maps to be legitimate and acceptable pieces of visual information as support for my previous study, they must contain these basic elements that adhere to institutional mapping standards. Without these aspects, these maps would need to be revised, adjusted, or worse, omitted from the research.

## Countermapping Interventions

Research on 'nonhuman' bodies tends to be viewed through a scientific lens governed by natural laws. Emerging perspectives in geonarratives however stipulate that it is far from such. The life-story of the more-than-human, such as the lower Abra River, develops due to both physical (bathymetry, topography, tropical cyclones and monsoons, and vegetation) and anthropogenic (deforestation, land use/land cover change, and mining activities) factors. It intermingles with the Santa townsfolk's everyday encounters, and both are incessantly entangled in the constant (re-)storying of a Philippine fluvialscape. I define "fluvialscape" as the interaction between the aquatic and terrestrial, and these constitute the coming together of human and the more-than-human entities, and the confluence that they build within a fluvial-riverine milieu (Amorsolo, 2022).

To be able to share these river-town fluvial geonarratives, I created countermapping interventions. With the same data as my previous normative topographic map of the Abra River basin in this paper, I made multiple versions

of the geonarratives of the river-town fluvialscape. It mirrors how geonarratives can have numerous versions based on the multiplicity of voices of the human and more-than-human (coming both from the townspeople and the river) and how these may also have several interpretations.

I produced imaginative interventions as a form of countermapping traditional knowledge and historical records of the lower Abra River and the townspeople of Santa. First, I made a geonarrative countermap depicting more than one hundred years of history of the river-town. Then, I generated an animated geonarrative countermap showing the select river-town barangays as an "island" with its "island-ness" and its dynamic "tidalism". Lastly, I created a geonarrative map art of my fieldwork participation in the area as I came across these river-town interactions.

For my first intervention, this GIS-based countermap (*Figure 4*) shows the lower Abra River and the community of Santa as entangled bodies. I made this map as a reaction to the more than 50 maps that I generated in GIS as visual support for my thesis research findings. It is a map of all aggregated GIS-enabled data that I was not able to initially integrate altogether since they would lose "credibility", especially if I did not follow normative mapping formats and methods.

I used GIS, the "default" and "accepted" technological advancement in creating State-institutionalized maps and mapping standards, in making a countercartographic output as a way of employing the tool in going against entrenched conventions. For this map, I made use of ArcMap as the GIS software program. Created by Esri (Environmental Systems Research Institute), the ArcGIS Suite (where ArcMap is included) is arguably the most recognized and most powerful GIS technology known by specialists and practitioners due to its robust functions, multiple features, and price tag.

*>100-Year Map*

In explaining *Figure 4* as my first creative mapping, the colored line networks are a visual representation of the life-story of the lower Abra River from a span of 113 years (1903-2016), and how it is intermingled with the various barrios/barangays (and town center) of Santa. Gearing away towards the concept of framing time with specific periods, the dots in the map correspond to migrations and dissolution of the barangays within 113 years – regardless of whether they were already washed away by floods, relocated to a different location in Santa, or continues to remain at their present sites. The larger sky-blue square symbolizes the former location of the town center, with its shape reflecting its grid street pattern. The navy-blue octagon is the municipal center's present location and current street pattern. I have mapped the river and the town as intertwined embodiments to show how these lifeworlds are entangled and interwoven, and how these human and more-than-human entities have life-stories to express that are equally important and significant (as non-human bodies like rivers serve to assist as mere backdrops or settings to people's narratives and experiences). I eliminated all that is typically considered as basic map elements one would more often than not see in a map: the map title, labels and legends, scale, directions and arrows, map projection, hypsometric tints, author's name, date published/created, data references, and borders – all of which can be seen in my river basin map (*Figure 3*). Just as how in reality, this river-town fluvialscape is bounded by various anthropocentric intrusions – from the mere labeling and categorizing of features on the map to the visual hierarchies between human and more-than-human entities. I removed these map elements to show how maps can be a tool for 'unbinding' anthropocentric mediations into the more-than-human and landscapes.

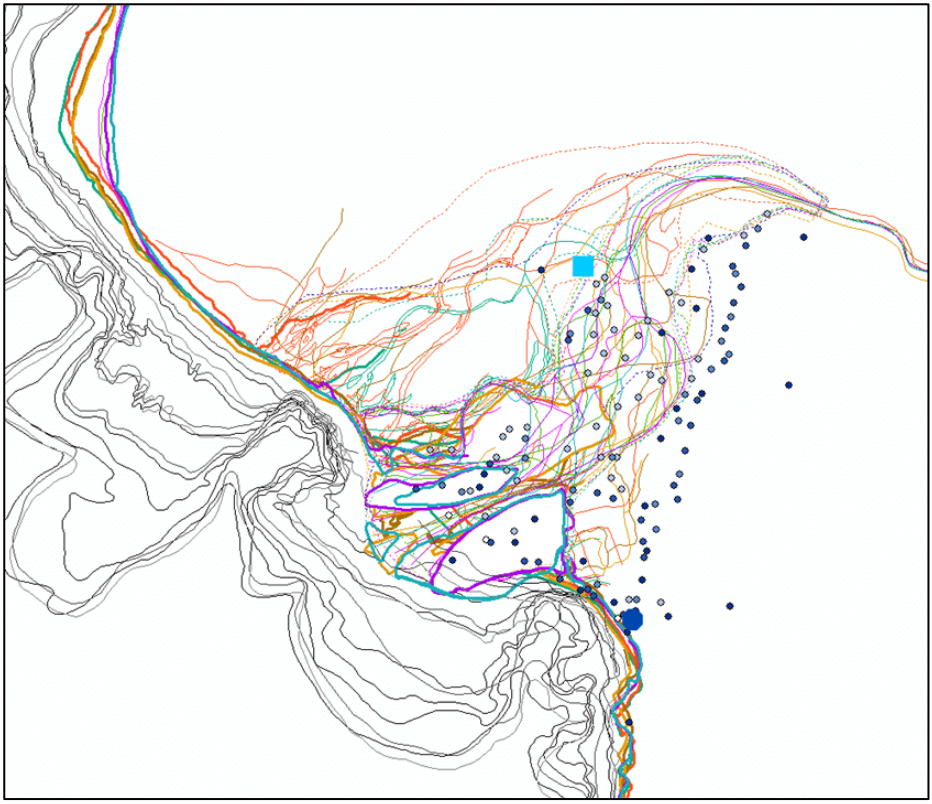

FIG. 4. *River-town Fluvialscape Entanglements. Map made by the author, 2022.*

Aside from these, the intermingling of the aquatic and terrestrial was also expressed in this creative intervention as both white spaces as not to form divided representations (i.e., blue for the waters of the West Philippine Sea and the lower Abra River and brown/green for the terrestrial land area). I have also used multiple colors for the river networks to go against the conventional use of different shades of blue for waterways, while intendedly applying an assortment of shades of blue to correspond to the comings and goings of the barangays and town center along with the river with time. The life-stories of the river and town are all epitomized in

one single map to show how both have, and will continue to, leave imprints into the landscape – a series of created complex, dynamic, and interacting palimpsestic strata of meaning (Viles and Goudie, 2010).

### *Mapping "Island-ness" and "Tidalism"*

The second creative intervention depicts the river delta portion of the lower Abra River where a few of the barangays of Santa are located. This map was made using the slideshow presentation program, Microsoft PowerPoint 365 – to delve away from the use of GIS as the authoritative tool in mapping and use a more accessible and available means to make maps.

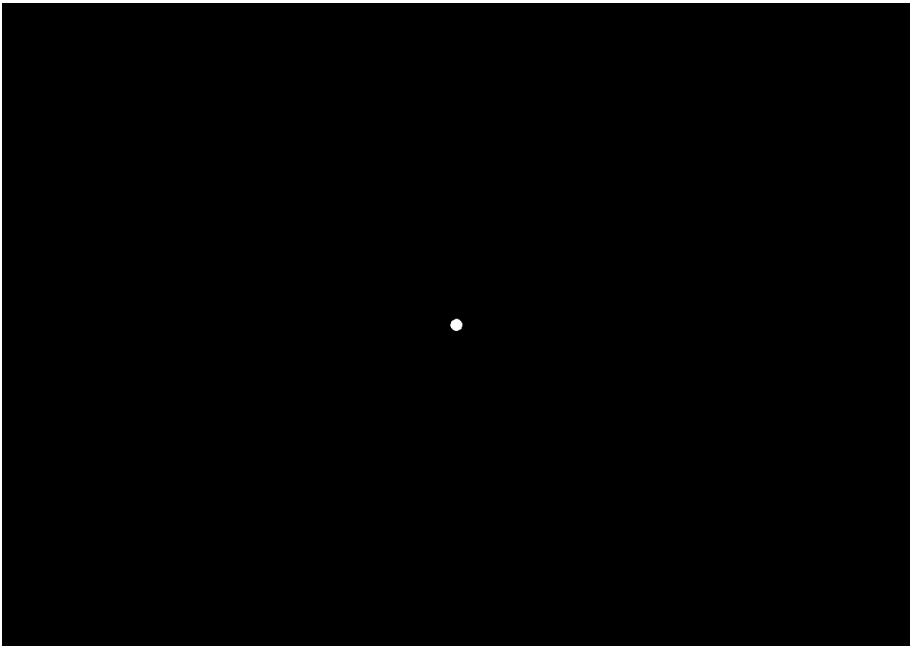

FIG. 5. *White Dot Island map. Created by the author, 2022.*

To begin the discussion about this geonarrative countermap (*Figure 5*), the delta of the lower Abra River and their corresponding deltaic communities is

represented by a white dot at the center of the map and is surrounded by a black sea of dark vastness. Barangays that are directly positioned on top of the river delta are colloquially known as "island barangays" by municipal and barangay officials. This is due to the barangays' location, their lands' island-like appearance and characteristics (which in reality are river mouth bar deposits), their situation at the mouth of the lower Abra River, and their distance from the rest of the "mainland" coastal Santa. Think of this white dot as the visual representation of these "island barangays", and along with the dot are "outsider"-imposed "island-ness" – observations and introspections from people living "outside" of these barangays; residents from "mainland" Santa and people not from Santa (e.g., policymakers, scientists, environmental planners, city dwellers, and me). This "island-ness" that we might see as outsiders include connotations of isolation and inaccessibility, scarcity of property and resources, vulnerability to the elements with its minuscule size, and the appalling need to be overseen and managed by people from "non-islands" (McCall, 1994). The white dot also represents how an outsider might also view the dot as a symbol for the "island barangay's" "desolation" as nothing else is seen within, or with, the white dot. A background of immense blackness surrounding this dot with the elimination of the rest of Santa and other adjacent topographies and bathymetries also contribute to the "island-ness" of these "island barangays."

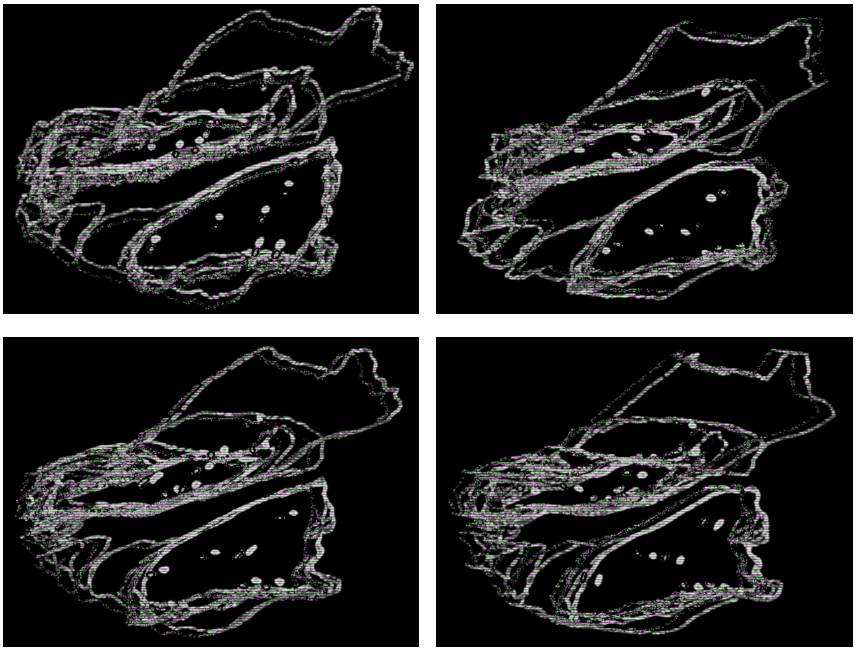

FIG. 6. *The Island is the Tide map. Created by the author, 2022. Pictured here are screenshots of the animated map to show its movement.*

However, once this tiny white dot is clicked, it leads to another creative intervention – a dynamic, animated map. Behind the tiny white dot is a map comprising a series of pictures rendered to produce an image in graphics interchange format (GIF) to simulate the dynamism and vivacity of these "island barangays" (*Figure 6*). This GIF map shows how I visualize the active swash-and-backwash character of the river-town fluvialscape. With this GIF mediation we begin to see how these "island barangays" are always in constant flux – constantly shifting, continuing, and enduring with their entanglements to the ebb-and-flow of the tides, river flows, and sea currents, the strong winds, tropical cyclones, and floodings, and the erosion and deposition of their lands.

I also viewed this dynamic behavior of the "island barangays" as like the tides themselves, with seemingly rhythmic, persistent, and recurring relationships with both the push-and-pull of the atmospheric and hydrospheric – thus, a sort of "tidalism" is seen in which these "island barangays" perform. I further define this "tidalism" as conveyed by the animated tidal movement in the GIF map akin to the emergences and departures of the tides – just like how tides surround the barangays, how tides facilitate in shaping the "islands barangays" by means of erosion and deposition, and how the movement of the barangays (dots in *Figure 6*) within the deltaic area for 60 years show comings and goings of the people like how tides go high and low within a solar day.

Looking back, the reason for creating these white dot map and GIF map was to show how the "island-ness" and the "tidalism" of the "island barangays" are neither negative nor positive. These maps are my own interpretations of the barangays' ongoing and continuing negotiations with their fluvial environment. These barangays as "islands" is something distinct to them and may never be truly imparted and expressed by anybody else but them.

### *Landscape Color Swatch Map*

This is a geonarrative map art that I created using Microsoft PowerPoint 365, and it essentially shows some snippets of my data gathering for my previous research (*Figure 7*). For the third work, I generate 14 rows of color swatches: the first row corresponds to my first day in Ilocos Sur, the second row for Day 2, and so on. The colors are selected at random from the various geotagged photographs that I have taken daily in those 14 days. I have only chosen one photo (a day) that had a note-worthy impression on me no matter how mundane the circumstances were (e.g., a beautiful sunset enveloping swaying rice plants on a field) or how applicable it was for my fieldwork (e.g., Santa's municipality-wide flood warning

systems). Instead of revealing the geotagged photographs themselves, I have conceived of a 'landscape color swatch map', for three main reasons:

1. First, although taken with permission, I want to omit the association of the photo with the actual place without essentially excluding this association (since these colors were seen at the particular time these photos were captured);

2. Second, instead of precisely watching the physicality of the places I had been to, I convey other ways of presenting the places I have been through their temporality; one can only shoot a one-of-a-kind snapshot at a particular moment – at an exact time, place, and instance – and of course, would generate an irreplaceable unique array of colors; and

3. Lastly, I want the audience of my map to make guesses of what was in these photographed landscapes that had an impactful effect on me based on the color swatches. I would like my audience to interact with my map as I keep the map intimately personal to me as the mapmaker, as somebody who conducted the fieldwork, and as someone who had felt these places.

FIG. 7. *Landscape Color Swatch map. Created by the author, 2022.*

For this intervention, I want to map out my journey before producing my final manuscript, the process by which I as a researcher had conducted methods and technologies to get all the necessary information, I need to complete my research. What is often neglected is the ordinariness of everyday moments and the impact of these instances that let the conception of more novel and productive underpinnings that can lead toward a better understanding of the world we want to get to appreciate better.

## Reflections and Recommendations

These three mapping interventions reinterpret archival data and cartographic outputs about a river-town fluvialscape in the Philippines through a series of creative reimaginations, therefore, adding new strata of meaning regarding the life-story of the river and the town as a way of involving myself as a researcher in (re-) unfolding its enduring and ever-evolving river-town geonarratives. In the long-standing institutionalized mapping, not only do I limit myself to normative mapping practices where map and mapping standards and practices are an absolute must to make maps that are treated as "reliable", "truthful", and "valid", but I also prevent myself from sharing untold (alternative) stories which are also reliable, truthful, and valid. Limiting myself to stick with conventions will put constraints on all the possible creative interventions that I can do with maps and map-making; confining myself with maps with an atlas-like aesthetic that often merely aids as a visual depiction of a physical setting – serving as a background distanced away from "more important" information that is placed forward.

Mapping interventions through creative reimagination motivates me as a researcher to apply different ways of thinking and understanding the more-than-human world (Braidotti and Hlavajova 2018, in Jukes and Reeves 2019). It can be

said that although we may never tell what they want to relay, I am given the chance as a human being to inhabit the life experiences of the more-than-human experientially and conceptually (Jukes and Reeves 2019) through creative countermapping mediation of its geonarratives. Countermapping enables the displacing of anthropocentric disruptions in representing more-than-human lifeworlds, allowing the re-evaluation and re-scrutinization of predominant notions and assumptions of human-environment/nature interactions.

Through creative mapping interventions, one does not need to confine oneself to what the State, corporations, or other institutions acknowledge and instill. Creative map-making becomes thought-provoking and involved especially for practitioners and audiences who are accustomed to normative and conventional cartographies and mapping practices, allowing them to go beyond what is prescribed by influential forces. Mapping interventions give voice to the voiceless, to the invisible, visibility. The powerless become powerful, the hopeless, hopeful. With other ways on how information on maps is represented and can be represented, creative interventions in map-making pave the way to different and boundless (re)interpretations, possibilities, and value to maps – letting novel, inventive, and more alternative traditions of making meaningful and purposeful maps.

The reimaginations presented in this paper were limited to my personal endeavors as a researcher. Community-led creative participatory countermappings of the Santa townspeople and their relationship with the lower Abra River can still be explored to (re-)tell their folk encounters, subjectivities, and entanglements with the more-than-human. These collective efforts and initiatives may become potential projects in continuing creative approaches to the (re-)storying and (re-)imagining of being in relation to various embodiments, landscapes, and each other.

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