

TOY PHOTOGRAPHY AS A VISUAL REPRESENTATION OF THE WAYS OF LIFE AROUND THE WORLD'S HIGHEST NAVIGABLE LAKE: LAKE TITICACA

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ABSTRACT

This study aims to explore the use of toy photography as a visual representation of the ways of life around Lake Titicaca in Puno (Peru). The research is qualitative and employs the technique of photographic discourse analysis. The research corpus consists of 145 photographs recorded by students from the Social Communication Sciences program at the National University of Altiplano Puno (UNAP), who visually represented the different ways of life around Lake Titicaca using their mobile devices. The results show that toy photography became an innovative resource, through which thematic categories emerged that reflect everyday life, cultural manifestations, aquatic and terrestrial fauna, tourism activities, means of transportation, and environmental issues such as pollution and global warming. It is concluded that toy photography facilitates the representation of real and imagined visual narratives that playfully capture the essence of their photographic proposal.

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1. Introduction

Images act as a bridge between people and the environment, making it easier for people to understand and visualise the world around them. Their purpose is to make reality more accessible and imaginable (Flusser, 1990). Since its invention in the first half of the 19th century, photography has been used to document various aspects of human societies (Pereira, 2024). Photography has the unique ability to capture the essence of a moment, a place or an emotion, making the distant, the fleeting or even the invisible tangible. Through a photographic image, we not only observe a visual representation, but also connect with the experience of the photographer and the reality portrayed (Yucra-Mamani et al., 2024).

The democratisation of perception, a concept espoused by Flusser (1990) and Martínez-Luna (2022), has been facilitated by the medium of photography. The ability to capture historical events, the appreciation of distant landscapes, and the deeper understanding of others' lives and experiences has been enabled by photography. The accessibility it provides has broadened our understanding of reality, challenged our preconceptions and invited us to reflect on our relationship with our environment. In this process, the photographer's gaze is of paramount importance, as each image has the capacity to capture a personal and subjective meaning, which is fully comprehensible only to its creator. Simultaneously, the image conveys a clear and understandable message to its viewer (Leal, 2024).

The photographic image, in its capacity as a document and a representation of reality, is capable of incorporating fictional elements in order to construct an imagined reality (Gil & Pérez, 2015, cited by Leal, 2024). As a form of artistic expression, it offers multiple readings and emotions, akin to painting, sculpture and literature. It is therefore evident that photography's function extends beyond mere documentation; it has the capacity to create entire worlds.

Toy photography, a photographic style (Ardon, 2020), continues to be a prevalent phenomenon in contemporary culture (Fadillah et al., 2017). This distinctive approach integrates creativity and visual storytelling through the utilisation of miniatures. While the primary subjects are toys, this technique encompasses more than mere portraits; it facilitates the recreation of intricate scenarios, the articulation of emotions, and the narration of tales that could compete with life-size representations. In common with other photographic styles, toy photography employs lighting, framing and focus to generate visual and emotional impact. This artistic approach not only reflects the imagination of the photographer but also expands the artistic possibilities, transforming everyday objects into the protagonists of visual narratives.

The practice of toy photography has been influenced by the increasing popularity of the "do it yourself" (DIY) culture, which has encouraged individuals to express themselves creatively. In this context, the mobile phone, by incorporating a camera, has become a tool that facilitates the creation of images (Martínez-Luna, 2022), allowing individuals to compose and photograph their own images, thus overcoming the limitations of access to professional or specialised equipment. This enables anyone, anywhere, to capture and share their creations with ease. Consequently, individuals equipped with only three rudimentary components (a toy or figurine, a mobile phone, and a substantial measure of creativity) can engage in toy photography (Ardon, 2020).

In this sense, students in the third cycle of the photography course at the Professional School of Social Communication Sciences of the National University of the Altiplano of Puno (Peru) have utilised toy photography as a medium to represent realities through visual discourse surrounding Lake Titicaca. It is noteworthy that the study centre is situated in proximity to the inner bay of Lake Titicaca, with the majority of students hailing from the Puno region. This geographical proximity endows them with direct or indirect life experiences in the surroundings of Lake Titicaca, the highest navigable lake in the world and a natural wonder recognised as a Natural Heritage of Peru (Peru.info, 2017). The lake's significance extends beyond its size and impressive geography, being also distinguished by its rich biodiversity and cultural relevance. The present study aims to explore the use of toy photography as a visual representation of the ways of life around Lake Titicaca in Puno, Peru.

2. Literature Review

2.1. Photography and the Toy Photography Style

The evolution of photography has been a fascinating process that has radically transformed the way people capture and perceive the world.

The 19th century began without photographs and ended with millions of cameras in the hands of thousands of users. The dawn of the digital era in 1986 and the beginning of mobile photography in 2000 are also catalysts for the popularity photography enjoys today. (Almeida & Fernandes, 2016, cited by Cunha, 2022, p.200).

In the early days, images required lengthy chemical processes and specialised equipment; today, however, any individual with a mobile phone can take a photograph. The transition from analogue to digital, and then to the era of mobile photography, has not only democratised its practice, but also expanded its creative possibilities, rendering photography an accessible and global medium. Indeed, it is now almost impossible to go a day without being exposed to a photograph (Mykytka, 2022).

In terms of its potential, it has been identified as an agent of transformation, a tool for documenting evidence, and a means of capturing diverse realities (Alvarado & Jiménez-Marín, 2022). Since its inception, photography has been associated with the preservation of memory and the desire to capture time, ambitious goals that have evolved as its uses have diversified and its access has expanded (Pérez & Prada, 2022).

Today we live "in an age of inexhaustible proliferation and overexposure to photographic images, whose precocious production is no longer exclusive to the artist, but is extended and practised universally, from an increasingly early age" (De Lucia, 2023, p. 132). This universalisation of photography has the potential to enrich visual language by giving rise to a diversity of looks and styles, which transforms the way we understand and experience the world through images. One such style is toy photography.

The emergence of toy photography is due to a variety of reasons, including the need for storytelling to bring toy characters to life. This photographic style is also strongly linked to the world of animation, which involves numerous scenes or plots related to the toy industry. The creation of toys is, moreover, connected to film production and advertising. (Fadillah et al., 2017, p. 475)

The act of taking photographs thus leads to different ways of thinking, observing, looking and also symbolic expression (Leal, 2024) through the use of toys. This style emerges as a creative medium that not only allows images to be captured but also gives life to narratives through inanimate characters. This narrative approach is fundamental because it turns toys into the protagonists of visual stories.

Toy photography consists in photographing toys, not as simple product photography, but in constructing and recreating stories with one or more figures as protagonists and models. Through photography, an environment is sought or created that contextualises the figures, resulting in an image in which the viewer perceives the figure coming to life in the scene, without neglecting the artistic aspect. (Ardon, 2020)

In the film industry, Toy Story was an immediate global success (Diviesti, 2021). The film was notable for its exploration of toys as both commercial products and conduits for storytelling that transcended cultural and generational boundaries, thereby leaving a lasting imprint on both cinema and popular culture. Consequently, toys have become pivotal elements in various cinematographic and photographic proposals.

It is conceivable that the earliest toys were natural objects found on the ground. Although there is little evidence to support this hypothesis, it is thought that these may have been sticks, stones, bones, ropes or other combined materials. It is speculated that these objects were utilised to emulate adult hunting activities, serving as a form of supplementary exercise that contributed to the development of the conservation instinct necessary for survival into adulthood. (Ingram, 2020)

The hypothesis that the earliest toys were natural objects is indicative of the profound connection between humanity and its environment that has persisted since antiquity. The proposal for a research study on toy photography around Lake Titicaca is presented as a research proposal that enhances nature.

2.2. Lake Titicaca: The World's Highest Navigable Natural Heritage Site

Lake Titicaca, the highest navigable lake in the world, holds within its deep blue waters the identity and history of Puno, Peru. It is located on the border between Peru and Bolivia.

Titicaca spans an area of 8,128 km² and sits at an altitude of 3,820 metres above sea level, within a closed depression known as the Altiplano. The lands closest to the lake are better suited for agriculture and have higher population densities. However, even in this area, farming faces significant challenges. Mixed farming and pastoral areas are found slightly further from the lake. In the higher and more remote regions, pastoral activities predominate, extending towards the mountains (Orlove, 2010, p. 317).

Titicaca, also referred to as Mama Qota, is regarded as sacred by the local population and its pivotal role in the development of complex societies in the Andean area is emphasised (BCP, 2012). The lake itself functioned as a hub of cultural and economic interaction between different peoples, facilitating the creation of a shared Andean identity that endures to this day.

Figure 1. The majesty of Lake Titicaca



Source: Own elaboration, 2019.

On 31 October 1978, the Lake Titicaca National Reserve was established with the objective of preserving the wild flora and fauna, promoting the socio-economic development of the region, and safeguarding the cultural traditions of the local communities (Supreme Decree No. 185-78-AA, 1978; National Service of Protected Areas (Servicio Nacional de Áreas Protegidas) [SERNANP], 2019). This designation reflects the lake's importance as a unique ecosystem. Since 20 January 1997, the entire Peruvian side of Lake Titicaca has been recognised by the Ramsar Convention as a wetland of international importance, especially as a habitat for waterbirds (OEFA, 2012; SERNANP, 2019). This designation is significant in that it not only acknowledges the lake's distinctive biodiversity, but also its pivotal function in the movement and conservation of species. Moreover, as a pivotal wetland, it underscores the necessity for sustainable management that is beneficial to both wildlife and the human communities that rely on its resources.

Lake Titicaca as a natural reserve offers a wide variety of tourist activities that combine nature, culture and adventure.

The Lake Titicaca Reserve has several islands that can be visited, such as Taquile and Amantani, which are ideal for rural community-based tourism. Suasi provides private tourism services. Community initiatives on the Capachica and Chucuito peninsulas are also noteworthy, as is the Carata Mocco birdwatching circuit, where you can observe the Titicaca Grebe. The Yapura Tourist Circuit for aquatic adventures. On Foroba Island there is an Interpretation Centre and a small centre in the community of Huerta Huaraya. Both are ten minutes from the city of Puno (SERNANP, 2019).

Another tourist destination of interest are the floating islands of the Uros, which are located 8 kilometres from the city of Puno. These are artificial islands made of totora reeds within the Titicaca Nature Reserve, and the main activities carried out by the Uros are fishing, hunting, egg collecting and tourism (Gómez-Arteta & Escobar-Mamani, 2022).

Lake Titicaca, which has a unique ecosystem at high altitude, is facing increasing environmental problems generated by human activity. In the city of Puno, several problems of environmental degradation have been identified, including the contamination of the inner bay of Lake Titicaca due to sewage and solid urban waste discharges (Yucra, 2010). A study also identified that between March and April 2015, the lake suffered its first recorded algal bloom due to pollution, causing serious damage to the southern basin. This suggests that more active management of the lake and its surroundings is required to avoid further environmental problems (Duquesne et al., 2021).

3. Methodology

The present study adopts a qualitative approach, utilising the photographic discourse analysis technique. This technique emphasises three key dimensions: the context of photographic production (i.e. the individual responsible for the image, the method of its creation, and the circumstances under which it was produced), visual content (i.e. the presence or absence of characters, settings, colours, and shapes), and visual narrative (i.e. the story and message conveyed by the image). These dimensions of analysis, proposed by the authors, facilitate an understanding of the visual representations of toy photography. The research corpus consists of 145 photographs captured by students of the third cycle of the Professional School of Social Communication Sciences of the National University of the Altiplano Puno (UNAP), who visually represented the diverse forms of life around Lake Titicaca using their mobile devices. The study encompasses all the students, constituting a group of forty university students with life experiences related either directly or indirectly to Lake Titicaca. It is noteworthy that the majority of these students come from diverse localities within the Puno region, offering a more authentic perspective on the realities surrounding the lake.

The thematic categories that emerged from the analysis of the photographic discourse are presented in the results section. These categories facilitate the structuring and deepening of the interpretations of the images, thereby exposing recurring approaches or perspectives in the visual representation of the ways of life around Lake Titicaca, achieved through the utilisation of toy photography. This analysis thus demonstrates the employment of visual production as a medium for the documentation and narration of both real and imagined dynamics, thereby enriching our perception and understanding of the ways of life in the circumlacustrine area of Puno.

4. Results and Discussion

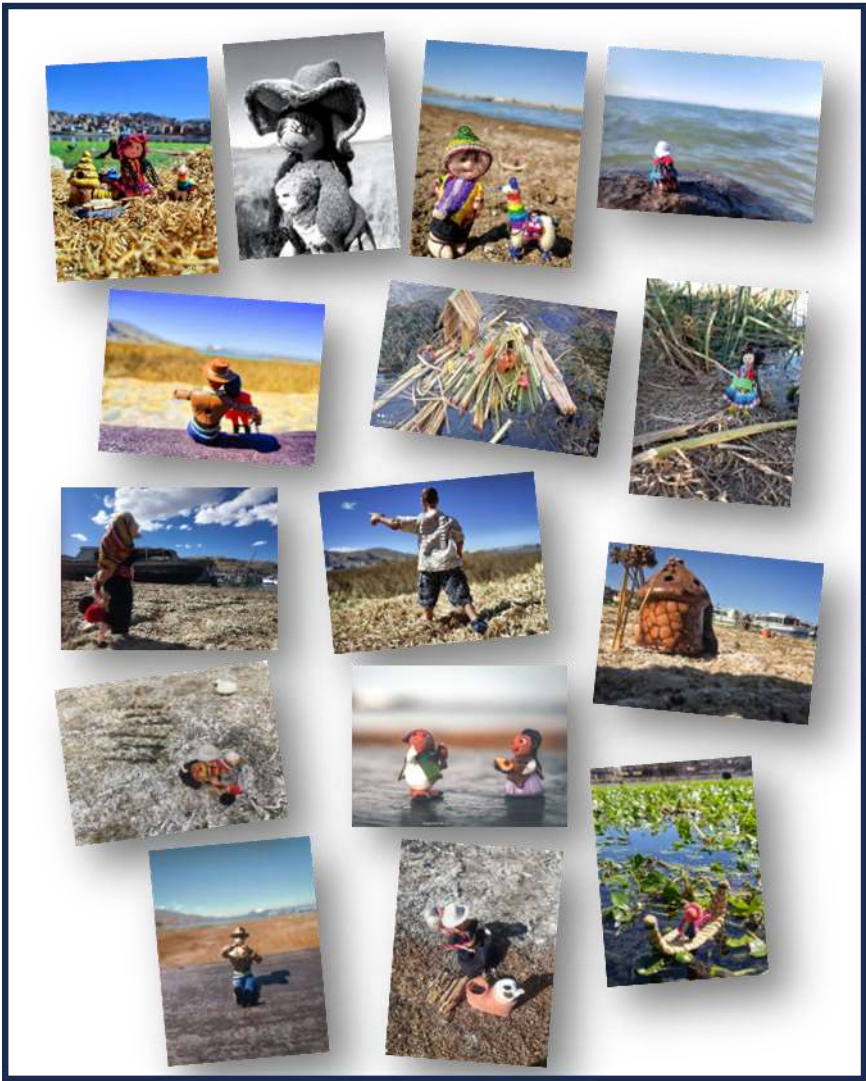
The results of the research are organised into eight thematic categories that emerged from the analysis of the photographic discourse around Lake Titicaca. These categories are as follows: daily life, cultural manifestations, aquatic and terrestrial fauna, tourist activities, means of transport around and within the lake, environmental pollution, global warming and fictional characters in Titicaca. In addition, the text contains figures and tables to illustrate the findings, accompanied by their respective discussion.

Figure 2. Harvesting a future



Source: Milagros Cutimbo Casazola, 2024.

Figure 3. Collage of daily life on the shores of Titicaca



Source: Students of Communication Sciences UNAP, 2024.

Table 1. The visual discourse of the *toy photography* category life

Production context	Who	University students
	How	Use of elements related to everyday activities of community life.
	Circumstances	It represents the reality of daily life activities in the countryside around Lake Titicaca.
Visual content	Characters	Figures made of handicraft materials, fabric, ceramics and synthetic material.
	Scenarios	Different locations representing the lakeshore are identified.
	Colours	The predominance of blue, shades of orange and greyscale can be identified.
	Forms	Anthropomorphic-shaped dolls are identified in a context of cultivated areas, accompanied by cooking and living utensils.
	History	The rural inhabitant is always in contact with nature, Pachamama (mother earth) and Mama Qota (mother lake) i.e. develops in an environment of Suma Qamaña (good living) in harmony with nature.

Message	Pachamama and Mama Qota are considered to be the providers of food, the former provides potatoes, quinoa, barley, among others, and the latter, fish, totora reeds and water to irrigate the cultivation areas. This is why the inhabitants settled in the circumlacustrine ring develop in harmony with nature.
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Source: Own elaboration, 2024.

The depiction of daily life is illustrated in figures 2 and 3. The former portrays the arduous tasks undertaken by rural women in the Lake Titicaca region, thereby underscoring their pivotal role in sustaining the livelihoods of the local populace. The women depicted are shown as the primary agents of cultivation and harvesting, thereby preserving traditional techniques that have endured over time. The photograph not only exposes the physical labour involved, but also the symbolic connection women have with the land and water that are essential to their way of life. Figure 3 also exhibits several scenes related to agricultural work; similarly, traditional activities such as preparing food for family members, raising and caring for children, herding cattle, and artisanal fishing activities are linked to a good quality of life.

Table 1 presents an analysis of the photographic discourse of the daily life category, adopting an integral approach to the university students' capture of scenes representing life in community. These scenes integrate visual, contextual and narrative elements, resulting in a rich and profound representation that documents reality and transmits a strong message regarding the relationship between human beings and nature. The scenes also promote the valuation of ancestral practices that endure over time.

Figure 4. Collage of cultural manifestations in the circumlacustrine zone



Source: Estudiantes Cs. de la Comunicación UNAP, 2024.

Table 2. The visual discourse of *toy photography* in cultural manifestations

Production context	Who	University students
	How	Use of elements related to festive activities, myths and celebrations.
	Circumstances	It represents the cultural traditions of the Puno highlands.
Visual content	Characters	Anthropomorphic and zoomorphic figures made from wool, clay and synthetic materials.
	Scenarios	Locations representing the lakeshore are identified.
	Colours	With a predominance of blue, multicolour and greyscale.
	Forms	Anthropomorphic dolls are identified and zoomorphic
Visual storytelling	History	The rural population demonstrates its cultural identity through the practice of different "rituals" and festivities. Such as carnivals, the payment to the land, the representation of the departure of Manco Capac and Mama Ocllo and the festivity of the Virgen de la Candelaria.

Message	The inhabitants of the altiplano express their identity by revaluing their myths such as the departure of Manco Cápac and Mama Ocllo. And at certain times of the year, they perform different rituals in gratitude for what nature provides, such as the 'pago a la Mama Qota', the offering of challa to the animals during carnival time and the 'apjata' which symbolises support or collaboration to the alferados (a designated sponsor responsible for organising and financing the celebration) on festive days (ayni).
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Source: Own elaboration, 2024.

Figure 4 contains photographs that depict various cultural manifestations, such as the legend of the mythical couple *Manco Cápac* and *Mama Ocllo*, who emerged from the waters of Lake Titicaca to found the Inca Empire, symbolising the origins of Andean civilisation. This re-enactment takes place every 5th of November during the jubilee celebrations of the city of Puno.

Other rituals include the *Pago a la Mama Qota*, a ceremonial act in which local inhabitants offer tributes to the lake as a gesture of respect and gratitude for its protection and sustenance. Popular festivities, such as the carnivals, allow for the interaction between Andean men and women, animals, and cultivated lands through the ritual of *play*, involving the use of *mixtura* (coloured confetti), streamers, and the melodies of traditional music (Yucra et al., 2022).

During the carnival, locals adorn their animals and fields with colourful streamers and flowers in a gesture symbolising gratitude to *Pachamama* for fertility and abundance, integrating rural and agricultural life into the festive ritual. Another traditional practice is the *apjata*, which involves collaboration, support, gratitude, and the reciprocal exchange of favours through offerings of drinks, gifts, money, and even agricultural products during festive occasions led by an *alferado* (a designated sponsor responsible for organising and financing the celebration). In these gatherings, each guest awaits their turn to return favours previously received, playing a vital role in the Andean worldview (Yucra & Aragón, 2021).

As illustrated in Table 2, the students employed visual compositions for the toy photography, incorporating anthropomorphic and zoomorphic characters crafted from wool and clay. This approach values local craftsmanship, highlighting the integration of traditional techniques and materials. These characters function not only as aesthetic entities, but also as representations of the inhabitants and beings from Andean mythology, thereby underscoring the cultural connection with the environment. The pervasive use of the colour blue serves to symbolise the natural environment of the lake. The visual narrative thus suggests a value placed on cultural roots, in order to ensure the survival of tradition.

Figure 5. Sailing the Titicaca River



Source: Jheferzon Gómez Flores, 2024.

Figure 6. Collage of aquatic and terrestrial fauna



Source: Estudiantes Cs. de la Comunicación UNAP, 2024.

Table 3. The visual discourse of *toy photography* depicting aquatic and terrestrial wildlife

Production context	Who	University students
	How	Use of elements related to aquatic and terrestrial wildlife
	Circumstances	It represents the diversity of fauna that depends on the preservation of the ecosystem around Lake Titicaca.
Visual content	Characters	Zoomorphic figures made of craft materials (wool and clay) and synthetic material (plastic).
	Scenarios	Locations are identified on the shores of Lake Titicaca.
	Colours	Predominantly blue, green and pastel shades.
	Forms	Zoomorphic and ichthyomorphic figures are identified.
Visual storytelling	History	The ecosystem around the lake is varied, but in the last decade its extinction has been accelerating, as is the case of the pana duck,

	the diving duck, the Titicaca giant frog, the mauri, ispi and carachi fish; the humanto fish and the boga (the latter already extinct). In relation to land species, the population of alpacas and sheep is increasing as a result of the scarcity of wetlands at high altitudes.
Message	For an adequate conservation of native natural species, the authorities, through their institutions, must apply prevention policies aimed at the population and thus ensure their preservation.

Source: Own elaboration, 2024.

The category of aquatic and terrestrial fauna is illustrated by several photographs, as demonstrated in figures 5 and 6. Figure 5 showcases a native species endemic to the lake, while Figure 6 emphasises the biodiversity of this ecosystem, highlighting the aquatic birds, fish, amphibians and mammals that coexist in this environment. The images also depict animals such as roosters, dogs, guinea pigs, alpacas and others that are part of the daily life of the local communities. It is imperative to acknowledge that wildlife conservation is paramount, given the role these animals play in maintaining ecological balance within the lake and their significance for the livelihoods of the local communities, which are dependent on activities such as fishing and grazing. Table 3 provides a detailed analysis of the photographic discourse, focusing on the chromatic elements of the visual content. It highlights the prevalence of blue in the sky and the lake and exclusively features zoomorphic figures. The visual narrative under consideration here is one that is concerned with the preservation of the ecosystem.

Figure 7. Recreation of the island of Uros



Source: Eber Pérez Alcos, 2024.

Figure 8. Collage of tourism activities



Source: Estudiantes Cs. de la Comunicación UNAP, 2024.

Table 4. The visual discourse of *toy photography* of tourist activities

Production context	Who	University students
	How	Use of elements related to tourism activity.
	Circumstances	It represents a diversity of natural tourist attractions around Lake Titicaca.
Visual content	Characters	Anthropomorphic dolls made from wool, cattail and synthetic materials.
	Scenarios	Locations representing the main natural tourist attractions (shores and beaches) of Lake Titicaca are identified.
	Colours	With a predominance of blue, warm colours with pastel shades and greyscale.
	Forms	Anthropomorphic and zoomorphic dolls are identified.
Visual storytelling	History	The images show Lake Titicaca as a tourist destination, the floating islands of the Uros, the beaches of Capachica with its water games

	and the dock of Puno which is the main lake port.
Message	The main economic activity is tourism, which is why, from the rural inhabitants to the authorities, they must assume a position of preservation of the attractions.

Source: Own elaboration, 2024.

Tourism is a significant economic activity for the Puno region. The photographic documentation presented in Figures 7 and 8 captures various tourist attractions surrounding Lake Titicaca, emphasising iconic locations such as the floating islands of the Uros. These islands, constructed from totora reeds, offer a glimpse into the cultural and scenic allure of an ancient way of life, as experienced by visitors (Gómez-Arteta & Escobar-Mamani, 2022). Other notable attractions, such as the idyllic beaches of the District of Capachica, offer a range of amenities, including water-based recreational activities. The Puerto muelle and the Malecón of Puno, photographed at different times of the day, demonstrate the dynamism that tourism brings to the city, serving as meeting points for locals and visitors. Through these images, it is evident that tourism has become an essential economic activity in the region. The photographic discourse is analysed in Table 4.

Figure 9. Titicaca raftsman



Source: Karlos Luque Mamani, 2024.

Figure 10. Collage of means of transport around and within the lake



Source: Estudiantes Cs. de la Comunicación UNAP, 2024.

Table 5. The visual discourse of *toy photography* related to means of transport around and in the lake

Production context	Who	University students
	How	Use of elements related to means of land and water transport
	Circumstances	Represents the use of means of transport around Lake Titicaca.
Visual content	Characters	Anthropomorphic and zoomorphic dolls made of woollen material.
	Scenarios	Locations are identified that represent the access routes to the communities settled in the circumlacustrine ring and navigation on Lake Titicaca.
	Colours	With a predominance of blue, yellow, red and green.
	Forms	Anthropomorphic and zoomorphic dolls and objects representing types of aquatic and terrestrial transport (carts, boats and totora reed rafts) are identified.
Visual storytelling	History	Due to its vast extension, Lake Titicaca is predominantly accessible by water and land.
	Message	The members of the communities settled on the islands of the lake and tourists use water transport (boats and totora reed rafts), while the communities in the vicinity of the lake use land transport (vehicles).

Source: Own elaboration, 2024.

Figures 9 and 10 illustrate images pertaining to the category of means of transport around and within Lake Titicaca, utilised by both local inhabitants and tourists for mobility. The range of vessels depicted encompasses traditional totora reed rafts, historically employed by Andean communities, and contemporary tourist boats traversing the lake. Furthermore, land mobile units that connect rural and urban areas in proximity to the lake are observed, reflecting the significant role of these means for daily mobility and tourism. These photographs not only document the methods of transport but also reveal the integration of contemporary technologies with traditional practices that allow the members of the communities and their livestock to move around. Table 5 provides a detailed discourse on the photographic images, with particular reference to the context, content and visual narrative.

Figure 11. When pollution invades



Source: Jheferzon Gómez Flores, 2024.

Figure 12. Collage environmental pollution



Source: Students of Communication Sciences UNAP, 2024.

Table 6. The visual discourse of toy photography related to environmental pollution		
Production context	Who	University students
	How	Use of elements related to lake pollution
Visual content	Circumstances	It represents pollution in various areas of Lake Titicaca, especially from sewage, solid waste, mining tailings and the burning of cattails.
	Characters	Anthropomorphic, zoomorphic and ichthyomorphic figures made of wool and synthetic material (plastic).
	Scenarios	Locations are identified that represent the contamination of this natural resource due to various causes.
	Colours	Predominantly black, green, grey and blue.
	Forms	Anthropomorphic and zoomorphic dolls and objects representing solid waste pollution and the burning of cattails are identified.
Visual storytelling	History	Pollution is identified as a result of human intervention, such as the burning of cattail reeds, clandestine sewage installations, the collapse of the oxidation pond and no action by the authorities to address this problem.

Message	Put on the agenda the implementation of actions to mitigate the pollution of Lake Titicaca.
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Source: Own elaboration, 2024.

A salient negative aspect is the pollution of the inner bay of Lake Titicaca, which is exposed by the students through the medium of toy photography in Figures 11 and 12. These photographs capture the accumulation of solid waste and the impact of sewage dumping on the shores and waters of the Puno bay. This scenario reveals a worrying degradation of the ecosystem, especially in areas close to the city, where urban growth and the lack of adequate infrastructure for waste treatment have exacerbated the situation. As illustrated in Figure 10, the accumulation of solid waste is having a detrimental effect on species that depend on the lake, including the blue-billed duck (a bird in the process of extinction). Conversely, the practice of burning cattails, ostensibly undertaken for the purpose of cultivating new vegetation, has deleterious consequences, including the ignition of forest fires. The images not only expose the pollution but also invite reflection on the urgency of taking conservation and sanitation measures to protect one of the region's most important resources. Table 6 provides a comprehensive overview of the elements employed in the photographic language, emphasising the use of black to symbolise ecosystem deterioration. The presence of anthropomorphic, zoomorphic, and ichthyomorphic figures, who endure the consequences of environmental degradation, is also highlighted.

Figure 13. Collage drought on the banks of the Titicaca River



Source: Estudiantes Cs. de la Comunicación UNAP, 2024.

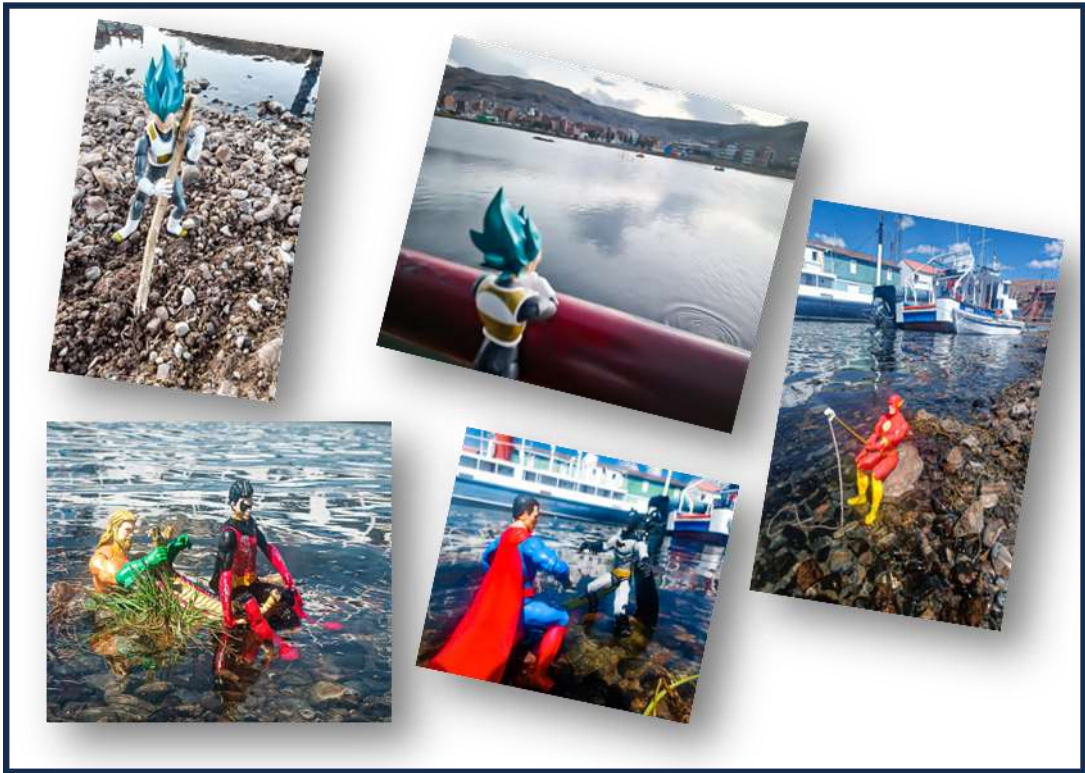
Table 7. The visual discourse of *toy photography* related to global warming

Production context	Who	University students
	How	Use of elements related to global warming
	Circumstances	It represents the drought on the shores of Lake Titicaca.
Visual content	Characters	Zoomorphic and anthropomorphic figures, made with plasticine, wool and synthetic materials.
	Scenarios	Locations are identified that represent the process of drought on the shores of Lake Titicaca.
	Colours	Predominantly grey and yellow.
	Forms	Anthropomorphic and ichthyomorphic elements representing the disappearance of fish species are identified.
Visual storytelling	History	As a result of global warming and pollution, the waters of the Titicaca evaporate.
	Message	Reduction of environmental pollution, for the reduction of global warming and the preservation of water resources.

Source: Own elaboration, 2024.

As demonstrated in Figure 13, the consequences of global warming are evident in the form of drought, as evidenced by the photographs depicting the shores of Lake Titicaca, an increasingly frequent phenomenon in this region. The images depict cracked terrain and areas where the water has receded, exposing vast tracts of land that were previously submerged. This receding water level is a clear indication of the impact of climate change on the lake's ecosystem, with drought affecting not only aquatic life, but also the agricultural and livestock activities of the communities that depend on the lake for their livelihoods. The images thus serve as a visual testament to this alarming reality, underscoring the imperative for concerted action to mitigate the effects of global warming. In relation to table 7, the students employed creative techniques to represent this problem, utilising materials such as plasticine, totora reeds and synthetic materials.

Figure 14. Collage of fictitious characters on the Titicaca



Source: Estudiantes Cs. de la Comunicación UNAP, 2024.

Table 8. Fictional characters in Titicaca		
Production context	Who	University students
	How	Use of fictional characters who, if they existed in real life, would contribute to the decontamination of the lake.
	Circumstances	It represents the participation of these characters in the decontamination of the lake.
Visual content	Characters	Anthropomorphic characters, made of synthetic material.
	Scenarios	Locations are identified in the harbour dock of the inner bay of Lake Titicaca.
	Colours	With a predominance of blue.
	Forms	Anthropomorphic figures are identified, representing the intervention of these characters in the port dock of the city of Puno.
Visual storytelling	History	Fictional characters in the inner bay, contribute to the decontamination of the lake
	Message	Support from people from other latitudes to achieve the decontamination of Lake Titicaca.

Source: Own elaboration, 2024.

As illustrated in Figure 14, the category of fictional characters in Titicaca incorporates an imaginary and playful component within the real environment, integrating superheroes and fantastic figures. The employment of toy photography results in the visual manifestation of iconic characters, including Batman, Superman, Flash, Robin and Vegeta, within the context of Titicaca landscapes, thereby facilitating a visual interaction between the characters and their natural and cultural surroundings. These photographs explore the intersection between the real and the

fictional, creating a narrative where heroes intervene in the lake's issues. This approach offers novel perspectives on visual representation, transcending the limitations of the quotidian and underscoring the transformative power of imagination in the construction of visual stories.

5. Conclusion

The utilisation of toy photography as a medium for visual representation of the diverse forms of life around Lake Titicaca, undertaken by university students, captured not only authentic aspects of the experiences, but also imagined situations, thereby amalgamating the real and the fantastic in scenarios of the highest navigable lake in the world. This proposal, which integrates playfulness with life experiences, strengthens the potential of this technique to visually represent the complexity and richness of Lake Titicaca, opening up new possibilities for innovative research and contributing to the generation of social and environmental awareness.

The photographic discourse unveils a multifaceted depiction of the experiences surrounding Lake Titicaca, organised into eight thematic categories. Primarily, the categories that mirror actual activities encompass the following: daily life, cultural expressions, aquatic and terrestrial fauna, tourist activities, transportation, and environmental concerns such as pollution and global warming. These categories illustrate the essence of the social, economic, and ecological dynamics that transpire around the lake. The pollution category is of particular significance, as it is exemplified by several photographs that reflect the critical situation of the inner bay of Lake Titicaca, affected by sewage and solid waste. Similarly, the images on global warming expose the consequences of drought. Conversely, the category of fictional characters in Titicaca prevails in terms of imagined situations. The students have created illusory narratives by including superheroes and animated figures in real Titicaca scenarios, thereby creating a playful fusion between the everyday and the extraordinary. This category demonstrates that toy photography serves as a medium for creativity, enabling students to propose novel interpretations and symbolic dimensions within the lake landscape. The photographic narrative is set primarily in the lake, with the primary visual elements comprising anthropomorphic, zoomorphic, and ichthyomorphic figures and objects that symbolize transport routes. These elements are crafted from traditional materials such as wool, ceramics, wood, totora reeds, and synthetic materials including plastic and plasticine. The colour palette is dominated by blues, greens, blacks, pastels and greyscale, with a diversity of narratives that underscore a shared message of care and preservation of this natural resource, which is catalogued as a RAMSAR site.

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References

- Alvarado, M. del M. R., & Jiménez-Marín, G. (2022). Documentary Photography and the Internet in Migration Processes: Channels to and from Andalusia, Spain. *Discursos Fotográficos*, 19(32), 103–129. <https://doi.org/10.5433/1984-7939.2022v19n32p103>
- Ardon, J. P. (2020). *El mundo mágico del Toy Photography, Fotografía con Juguetes*. Fotofestín. <https://fotofestin.com/el-mundo-magico-del-toy-photography-fotografia-con-juguetes-frikito/>
- BCP. (2012). *La Magia del Agua en el lago Titicaca*. Fondo Editorial BCP. https://www.fondoeditorialbcp.com/publicaciones/la-magia-del-agua-en-el-lago-titicaca/#obra_completa
- Cunha, S. S. (2022). [Review of] Agustín Lacruz, M. C., & Torregrosa Carmona, J.-F. (2019). Formas de mirar: usos informativos y documentales de la fotografía (1.ª ed.). *Boletim Do Arquivo Da Universidade de Coimbra*, 35(1), 199–208. https://doi.org/10.14195/2182-7974_35_1_8
- De Lucia, E. (2023). Bruno Munari, Dominique Darbois, Tana Hoban: tres ejemplos paradigmáticos del uso de la fotografía en los libros infantiles. *Arte, Individuo y Sociedad*, 36(1), 121–132. <https://doi.org/10.5209/aris.90168>
- Diviesti, C. (2021). *Toy Story, o el sentido de la vida*. Revista Dossier. <https://revistadossier.com.uy/cine/toy-story-o-el-sentido-de-la-vida/>
- Duquesne, F., Vallaes, V., Vidaurre, P. J., & Hanert, E. (2021). A coupled ecohydrodynamic model to predict algal blooms in Lake Titicaca. *Ecological Modelling*, 440, 109418. <https://doi.org/10.1016/j.ecolmodel.2020.109418>
- Fadillah, C., Syamsuddin, D., & Sasongko, R. (2017). The Power of Perspective on Toys Photography in One Frame Story. *Advanced Science Letters*, 23(1), 475–477. <https://doi.org/10.1166/asl.2017.7227>
- Flusser, V. (1990). *Hacia una filosofía de la fotografía* (Trillas (ed.)). https://monoskop.org/images/8/8d/Flusser_Vilem_Hacia_una_filosofia_de_la_fotografia.pdf
- Gómez-Arteta, I., & Escobar-Mamani, F. (2022). Saber Ambiental del pueblo Uros del Lago Titicaca, Puno (Perú). *HALAC- Historia Ambiental, Latinoamericana y Caribeña*, 12(1), 270–297. <https://doi.org/10.32991/2237-2717.2022v12i1.p270-297>
- Ingram, S. (2020). «Toy story»: Una breve historia de los juguetes. National Geographic. <https://www.nationalgeographic.es/familia/2020/12/toy-story-breve-historia-de-los-juguetes>
- Leal, A. (2024). Languages of photography. *Barcelona Research Art Creation*, 12(1), 1–20. <https://doi.org/10.17583/brac.10729>
- Martínez-Luna, S. (2022). Images in circulation. An approach to digital visual culture from the crisis of the specificity of the photographic medium. *Kepes*, 19(26), 317–348. <https://doi.org/10.17151/kepess.2022.19.26.10>
- Decreto Supremo N° 185-78-AA. Declaran la Reserva Nacional del Titicaca en superficie ubicada en las provincias de Huancané y Puno, Departamento de Puno, 3 (1978). <https://legislacionanp.org.pe/declara-la-reserva-nacional-del-titicaca/>
- Mykytka, I. (2022). Acronyms and neighboring categories in the language of photography. *Ibérica*, 44, 369–390. <https://doi.org/10.17398/2340-2784.44.369>
- OEFA. (2012). OEFA considera “sitio sensible” a la Bahía Interior del Lago Titicaca. Plataforma Del Estado Peruano. <https://www.gob.pe/institucion/oefta/noticias/21153-oefta-considera-sitio-sensible-a-la-bahia-interior-del-lago-titicaca>
- Orlove, B. (2010). Ventas y trueques en el lago Titicaca: un test para perspectivas alternativas. In *Lecturas de Antropología Social y Cultural. La cultura y ls culturas* (pp. 307–358). Universidad Nacional de Educación a Distancia.

- http://www.kaleidoscopio.com.ar/fs_files/user_img/textos_antropologia_cultural/Lecturas de-Antropologia Social Honorio Velasco .pdf
- Pereira, H. (2024). Using photography in history of science and technology: a methodological proposal. *Fotocinema. Revista Científica de Cine y Fotografía*, 28, 113–138. <https://doi.org/10.24310/fotocinema.28.2024.17609>
- Pérez, J., & Prada, W. (2022). Apuntes sobre fotografía y memoria a partir de la relectura de Ante el dolor de los demás de Susan Sontag. *Fotocinema. Revista Científica de Cine y Fotografía*, 25, 103–125. <https://doi.org/10.24310/fotocinema.2022.vi25.14482>
- Perú.info. (2017). *Lago Titicaca: mística y milenaria maravilla natural*. Portal Oficial de La Marca Perú. <https://peru.info/es-pe/turismo/noticias/3/16/lago-titicaca--milenaria-maravilla-natural>
- Servicio Nacional de Áreas Protegidas (SERNANP). (2019). *Reserva Nacional del Titicaca*. SERNANP. <https://www.gob.pe/institucion/sernanp/informes-publicaciones/1749491-reserva-nacional-del-titicaca>
- Yucra-Mamani, Y. J., Torres-Cruz, F., & Aragón-Cruz, W. E. (2024). Percepción visual en redes sociales de fotografías reales y sintetizadas mediante inteligencia artificial. *VISUAL REVIEW. International Visual Culture Review / Revista Internacional de Cultura Visual*, 16(4), 197–212. <https://doi.org/10.62161/revvisual.v16.5302>
- Yucra, Y. J. (2010). Campaña “Titicaca limpio ahora” una experiencia desde la comunicación social. *Comuni@cción: Revista de Investigación En Comunicación y Desarrollo*, 1(1), 68–75. <https://comunicacionunap.com/index.php/rev/article/view/8>
- Yucra, Y. J., & Aragón, W. E. (2021). El “Ayni” (como valor) y la comunicación en el bienestar emocional de los estudiantes universitarios aimaras. *Inclusiones*, 8, 590–614. <https://revistainclusiones.org/index.php/inclu/article/view/2636>
- Yucra, Y. J., Aragón, W. E., & Palomino, D. C. (2022). Discurso fílmico y dimensión sociocultural en la película Wiñaypacha. *Visual Review*, 9, 2–31. <https://doi.org/10.37467/revvisual.v9.3702>