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Photography in urban studies in Greater Lomé, an objectifying approach?

Kouassi Rodolphe Anoumou, Tchakouni Sondou*

Regional Center of Excellence on Sustainable Cities in Africa (CERViDA-DOUNEDON), Université de Lomé, Lomé 01B.P.1515, Togo * Corresponding author: Tchakouni Sondou, kevinsondou@gmail.com

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Copyright © 2024 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/ by/4.0/ Abstract: More and more urban studies researchers and students are using images. This choice often stems from the need to illustrate, analyse and understand territories and urban phenomena. This contribution seeks to demonstrate, on the basis of examples drawn from scientific productions in Greater Lomé, how the photographic approach makes it possible to apprehend the urban phenomenon. Three forms of image use can be identified in the documents consulted. On the one hand, images are a source of data to support information received through observation. On the other hand, photography is a technique for collecting metadata which, when triangulated with several sources, enables a query to be answered. Finally, the diachronic and chronological analysis of images of a social reality enables us to detect the visible and the invisible in order to take a critical look at the social world and the dynamics of social relationships.

Keywords: photography; urban studies; objectification approach; Greater Lomé

1. Introduction

At the dawn of the 21st century, when we are talking about Big Data and artificial intelligence, data collection is an essential concept for gathering information... Researchers are increasingly using visual resources (images and video) as part of their primary or complementary research techniques. Photographs are used to collect data by those involved in urban research—whether historians, archaeologists, urban planners, anthropologists, sociologists or geographers. Photography is a key documentary source for researchers looking into urban issues and the urban phenomenon. All these actors use it as a tool for reading urban landscapes and urban reality, whether past or present. As a result, it is common to see scientific documents on urban issues use images as an extension of the argument and analysis.

Today, the use of photography is relatively widespread in the human and social sciences. As early as 1925, Mauss (1967), in his Lessons in Ethnology, introduced the idea that photography makes it possible to collect visual data and thus memorise multiple details relating to the facts observed, information that the naked eye alone could not retain (Piette, 1996). However, the use of visual methods as a research approach in urban studies in Africa is not yet routine practice, although there are an increasing number of scientific publications that adopt this approach. These works are essentially characterised by the use of photography as an illustration.

However, in recent years the use of photography has become part of urban studies in Africa, particularly in Togo. An increasing number of researchers and students in urban studies in Greater Lomé are using images as part of their investigations. Photography is used extensively as a tool for reading, analysing and understanding territories, urban facts in Greater Lomé. Works such as those by Aholou (2015, 2021); Anoumou (2017, 2018, 2021); Agbemedi (2017); Amewossina (2020); Logan (2020); Keme (2020); Ahombo (2020); Awlime (2021); Samon (2021); Sondou et al. (2023), etc. can be listed as examples. Photography is therefore becoming an essential data collection technique. A data collection tool just like the questionnaire and the interview or observation guide. "It is like a model of expression, communication, display and demonstration, a tool that brings together the three fundamental principles of analysis: description, contextual research and interpretation" (La Rocca, 2007, p. 34). In urban studies, the image is seen as a concomitant link between the act of looking and the act of thinking. Perception and interpretation are socio-cultural activities and "(...) man has always used images to give form to concepts of reality" (La Rocca, 2007, p. 34).

"It seems to us that the value of using images in the social sciences should be assessed on a case-by-case basis, on the merits of existing work whose contributions and limitations could be discussed, and to which improvements and extensions could be suggested. And these trials need to be multiplied, equipped and exchanged" (Maresca and Meyer, 2016, p. 62). Based on examples drawn from scientific productions in Greater Lomé, this contribution seeks to demonstrate how the photographic approach can be used to understand the urban phenomenon. Three forms of image use can be identified in the documents consulted. On the one hand, images are a source of data to support information received through observation. On the other hand, it is a technique for collecting metadata which, by triangulation with other sources, makes it possible to respond to a given request. Finally, the diachronic and chronological analysis of images of a social reality enables us to detect the visible and the invisible in order to take a critical look at the social world and the dynamics of social relationships.

The use of images in the analysis and description of an urban phenomenon represents an important, non-controllable source of data for the researcher. Although it is an essential tool for urban studies, the question that we are entitled to ask ourselves is how photography contributes to the objectification of the urban phenomenon in Greater Lomé? What status do they give to this type of material in urban studies? The aim of this contribution is to use examples drawn from scientific production in Greater Lomé to show how the photographic approach makes it possible to objectively apprehend the urban phenomenon. To this end, the methodological approach that led to its writing is a combination of several investigative techniques designed to approach as objectively as possible the question of the use of photography in urban studies in Greater Lomé. Firstly, the approach was based on a problem-oriented reading of a corpus of texts (documentary research) using photography as a collection tool. Next, interviews were conducted with researchers and students in the humanities and social sciences. Finally, the contextualization and use of photography was used to understand the mechanisms of this approach, as well as the ethical and deontological challenges and issues involved.

Initially, with a view to reflection and analysis, this article sets out to examine photography as a research tool for objectifying results, based on the urban studies research carried out in Greater Lomé by researchers and students. The reflexive method consists of applying the analysis tools to the work of other researchers who have incorporated photography into their research methodologies. The second part analyses the use of photography as a tool and its limitations as a means of data collection in urban studies. Objectification is the process of making the abstract concrete. The process by which an object or material element, a thought or a piece of knowledge becomes a reality.

2. Materials and methods

To this end, this research uses the case method, a mode of critical inquiry in the study of cities (Duminy et al., 2014; Yin, 2003) by adopting an essentially qualitative approach to collect and analyze relevant data. The qualitative approach first consisted of examining relevant national literature related to the debates on Greater Lomé. This analysis did not focus on urban policy debates but on the "how" and "why" of the use of images in scientific production.

The documentary review of this research was initially based on dissertations, theses and articles in the social and agronomic sciences, in particular urban sociology, geography, town planning, anthropology and history. This research carried out in the libraries of the universities of Lomé and Kara and at the Michel Coquery library of the African School of Architecture and Urban Planning (EAMAU) over the period from 2015 to 2022 stopped on the date of 31 December 2022 gave 259 results in the central library of the University of Lomé, 05 at the University of Kara and 67 in the Michel Coquery library of scientific data but also because they are renowned higher education centers in the country.

Expert interviews were conducted with the main scientific stakeholders. The selection of respondents for the interviews was done purposefully and involved stakeholders involved teachers, doctors and doctoral and master 2 students. With the exception of teachers, where twelve (12) experts were interviewed, 15 doctors (4 sociologists, 3 geographies, 3 anthropologist, 2 environmentalist, 3 in water and sanitation); 27 doctoral students (6 in sociology, 8 in geography; 5 in urban planning; 2 in agronomy; 3 in water and sanitation, 3 in anthropology); and 23 master's students (6 in master's in Urban Studies, 3 in sociology, 5 in human geography, 3 in master's in water and sanitation, 3 in urban planning, 2 in anthropology, 1 in electrical engineering) were interviewed, for a total of 77 respondents. These interviews were conducted between August 2022 and July 2023.

3. Results and discussion

3.1. What is the photographic approach?

Photography is one of the techniques used to collect visual data. This technique is used by researchers in the humanities and social sciences who are interested in the visual method, another way of trying to capture an urban reality. The visual method is a logical approach aimed at carrying out research on the basis of the visual, i.e. images, videos and drawings (Prosser, 1998). Like the distinction made in visual sociology between sociology about images and sociology with images (Harper, 2002; La Rocca, 2007), the image can be both an object of study and a tool for investigation (Terrenoire, 1981). It has to be said, however, that when we speak of 'visual methods', we are more

likely to think of research using photography, video or even drawing as a survey 'tool' (whether primary or complementary) and/or as a means of reporting results (Chauvin and Reix, 2013).

Photography is a social construct offering innovative perspectives on the city and its transformations (Aholou, 2015, p. 111). As a simple image, the photograph symbolizes a message and leads us to "think" (Schaeffer, 1987). For Cardi (2015), the photograph is a "thinking board" comprising a variable number of elements chosen subjectively by the photographer at the time of shooting. "There is no doubt that the importance of photography in urban research stems from the fact that sight is the sense most in demand in the urban universe" (Aholou, 2015, p. 112). It is a visual representation of a given object that allows us to go beyond the object in question. It encourages an analysis of the object in isolation or integrated into its environment. Photography is therefore defined as a "luminous imprint, a trace" (Dubois, 1990), with "strong effects of reality for the reader". "In typological terms, it is similar to that category of 'signs' in which we also find smoke (an indication of fire), the cast shadow (an indication of a presence), the scar (the mark of a wound), the footprint, etc. What all these signs have in common is that they are genuinely affected by their object, that they have a physical connection with it. In this they differ radically from icons (which are defined solely by a relationship of resemblance) (Dubois, 1990, p. 46).

According to art and architecture historian James Ackerman photography enables the advancement of science and innovation. In his view, "The modern history of architecture had its origins in Western Europe at around the same time as photographs of buildings became available to researchers" (Lieberman, 1995). "Photographs did not create the discipline, but without them the opportunities to develop sophisticated research methods would not have been available to researchers who previously had access only to drawings and traditional reproductions [...] Photographs are fundamental to the practice of historical research and interpretation because they provide the researcher with an extendable, almost infinite, collection of visual records of buildings or building details within their field of research."

Photography is thus seen as a genuine mode of knowledge, a technique for collecting data. These different authors justify the photographic technique by the methodological use that defines the very nature of sociological and anthropological study.

Maresca and Meyer (2013) categorise three different types of use of photography in sociological studies. These are used for the purposes of: "understanding or questioning an image"; "collecting data and analysing social facts" and "reporting research". All these categories are part of the visual sociology movement. The first refers to what they call "the sociology of images". This involves looking at an image as an object of study. In this case, images are seen as records of social activity. Studying them provides information about social activity and the processes involved in constructing meaning in the social fields in which they are produced and spread.

The second category highlights the use of photography to collect data and analyse facts and social phenomena. It is therefore a research technique. It is carried out either by the researcher himself or by a professional photographer. However, there are many questions about the objectivity of the images collected and their interpretation. To reduce this doubt, imaging techniques such as image analysis and electronic probe analysis are used to repair social markers that have markings on the ground. The final category focuses on using images to produce a research report. It is about illustrating the results of a search. To date, this category is less used. The written word still takes precedence over the visual and any research cannot be "limited to the production of a film or a collection of images without a textual support. While research can be popularized through the production of a documentary, current university authorities are not prepared to accept that it should be limited to this. A written volume is required".

This idea of photography as an object to be studied does not fit in with our thinking. However, the following two perspectives are consistent with the idea of photography as a technical medium. The first is a 'sociology with images. In this case, photography becomes the preferred means of capturing data. It is a scientist's technique. Its role is more illustrative. The last perspective corresponds to "sociology in images". This means that photography supports and serves the scientist's argument, rather than simply illustrating it as in the second perspective. It is therefore an integral part of sociological analysis.

3.2. The photographic approach: From objectification to institutionalisation in urban studies

Images are playing an increasingly important role in urban studies research. Photography has become an essential technique for carrying out research. This section looks at the use of photography as a source of research—whether as a background already established or as material to be constructed—while taking a critical look at its use in urban studies in Greater Lomé.

Photography is a technique for analysing phenomena, above all physically observable reality and something that can be described. Accordingly, "photography is an indispensable technique in urban research, in the sense that an urban researcher cannot do without it. It enables him to make a comparative description linked to the evolution of a fact or phenomenon in its temporality and spatiality" (Elom, interview, August 2022).

Photographing urban space is therefore a way of capturing the urban changes underway, the practices in progress, the city in the process of being built; of describing the different facets of urban space as it appears at a given moment. These images, "taken at different moments in the life of the city, enable us to grasp the changes that have taken place over a given period of time. They "enrich" the text as it develops. The images bring to life the text derived from studies of the urban environment" (Michel, interview, July 2022). When we talk about urban studies, we're talking about real facts that we can see and touch on what is real, what people experience on a daily basis. "All social facts can be quantified and qualified. And let's not forget that the social sciences are not static; on the contrary, it's the dynamics we observe that contribute to scientific reflection. Successful research in this field involves a number of methodological approaches, the most observable of which is illustration. In my opinion, illustration involves diagrams, graphs, tables, comparisons and images or snapshots" (Mintre, interview, August 2022).

Images have an important role to play, particularly in comparing phenomena over

time. For example, an image of vegetation in the 1980s affected by urbanization presents a different face today, and it is important to illustrate this by showing the remaining patches of vegetation or what has become of yesterday's green spaces. Anoumou (2021), for example, in a comparative approach between the greater Accra area and the greater Lomé area, in order to better define his research object, and questioned access to electricity as a form of right to the city from the angle of spatial justice, favoured observation by geolocalised photography (Figure 1). The dissatisfaction with the electrical service, which lies at the heart of unequal and even inequitable access to electricity, was illustrated by images showing the ways in which connections are made to satisfy this basic need. By analysing the details of the photograph below, for example, Anoumou was able to state cautiously, but also with some certainty, that not all the population of Greater Lomé has equal access to electricity, since informal access strategies are more common on the outskirts than in the centre city. This justifies the precarious state of electrical equipment in certain quarters of Greater Lomé. Analysis of these images (Figure 1) enabled him to identify the 'visual markers' of electricity access practices in Greater Lomé. To differentiate between unequal access to electricity and unjust access to electricity, he constructed a theoretical explanatory model by establishing a link between the production of space, the recognition of territorial belonging, socio-spatial exclusion and dissatisfaction with the service.



Figure 1. Status of electrical equipment in Koklovikopé and Légbassito in Greater Lomé. Source: Anoumou (2021, pp. 89–112).

Images can also be used to highlight a problem observed on a plot of land in an urban environment. It creates or reproduces the real, the visible. For example, traffic jams at rush hour can only be described using images. Images can also be used as analysis or commentary tools, to emphasise the seriousness of a phenomenon. Without images or photographs, urban studies would be less illustrative.

Images that capture a spatio-temporal context reveal the co-presence of elements in the same space. These images show two or more phenomena in a given temporality. The photographs in **Figure 2**, used by Sondou et al. (2022) to illustrate the ways in which adolescent's appropriate public urban spaces in Greater Lomé, show, beyond this aspect, the state of these spaces. Here we could talk about the degradation or lack of sanitation in these spaces. "The images clearly show the extent to which the practices and spatial representations of adolescents are inscribed in urban space, shaping its architecture and forms, which in turn constrain them to form a system, so that it is impossible to know who is acting on the other, given how intertwined they are".



Figure 2. Use of public space by adolescents in Greater Lomé. Source: Sondou et al. (2022).

Through its relatively global approach, the image reveals links between dimensions, between variables, links that are more directly perceptible than with other survey instruments—questionnaires or statistical processing—which mainly capture fragments and links that have already been considered, pre-constructed as it were. Thanks to audiovisual recordings, new relationships appear more unexpected, particularly between the three interwoven dimensions of social practices: body, space and time (Haicault, 2010).

Amewossina (2020, p. 42), for her part, used photography to consolidate the fact as an object of study, and to grasp the meaning of the fact as a social reality by considering Greater Lomé as a geographical unit. Through images 1a and 1b in **Figure 3**, the author was able to capture the conditions in which the people of Katanga live, the state of their housing and the injustices to which they are subjected.



Figure 3. Precarious housing in Katanga. Source: Amewossina (2020, p. 51).

With the same aim of highlighting the reality of cyclists in Greater Lomé, Logan (2020) used the images below to depict the realities of unequal access to urban roads and the "true face" of cohabitation between cyclists and motorcyclists in Greater Lomé. This is borne out by the extent and diversity of the photographic holdings documenting the urban space of Greater Lomé, in particular using photography as an illustrative tool, a means of providing evidence. Samon (2021) and Keme (2020) used photographic observation to highlight the various ways in which waste is managed in Greater Lomé. Samon used the photographs in **Figure 4**, for example, to illustrate the relationship between the people of Lomé and their environment through the materialisation of solid waste management mechanisms.



Figure 4. Household waste management in Greater Lomé. Source: Samon (2021, p. 155).

Photographs provide a visible outline of what is to be analyzed, the first description of the phenomenon that the researcher wants to analyse. They can be used to study the evolution and dynamics of an area in terms of its form, the way in which individuals influence its constitution, its structure or even the way in which it functions. In short, the analysis of the use of photography by its various authors supports the observation and the text. They have used photography as visual evidence to reveal the living conditions of the population.

Through photography, these authors have materialised the significance of an urban fact in order to master and analyse it. Photography can be used in urban studies in Greater Lomé as an extension of observations (Aholou, 2015) made in both "participatory and non-participatory ways. The aim is always to illustrate phenomena that cannot be explained without images, so they reveal the phenomenon being studied". "In some cases, we felt it was necessary to provide visual elements, either to confirm or to illustrate a situation that might seem unlikely. These elements were obtained thanks to photography, which was used to illustrate numerous situations in the body of the text" (Awlime, 2021, p. 48).

"Photographs, and in particular instant photographs, are very instructive because we know, in some respects, that they look exactly like the objects they represent. But this resemblance is actually due to the fact that these photographs were produced in such circumstances that they were physically forced to match nature point for point. From this point of view, then," concludes Charles Sanders Peirce, "they belong to our second class of signs: signs by physical connection" (Peirce, 1978, p. 86). The image is "like a text, i.e. fabrics capable of forming sets of meanings whose functioning and induced effects can be described" (La Rocca, 2007, p. 33). The various photographs taken, as part of the research of Anoumou, (2017, 2021) served as justification for the description of the urban facts studied. They played the role of a visual thought of the transcribed realities. Images therefore give form to concepts of reality and allow a given reality to be presented and represented (Collier and Collier, 1986, p. 43). "The images allow the reader to better perceive and identify the facts being transcribed. In addition, the choice of georeferenced images aims to prove the location of the realities highlighted" (Anoumou, 2021, p. 57). In this way, photography bears witness to and supports the researcher's narrative.

The use of photography, even if it attests to the researcher's presence in the field, is not limited to its effect as an illustration or support for textual discourse. Photography, like interviews, observation, surveys and investigations, is a data collection technique. Just as the quantitative and qualitative approaches are complementary and one complements the other, observation, as an essential data collection technique in the field investigation process, needs to be supplemented by other data collection tools. The use of photography as another source of information gathering is essential. In fact, observation of an urban phenomenon, whatever the measures taken, does not in itself capture the smallest details of the urban phenomenon under study. During fieldwork by a researcher, the eye selects only a fragment of reality, and note-taking, carried out simultaneously with the eye, is also selective. In this context, photography is a source of data that supplements observation.

The image is an instrument of investigation and therefore a tool for producing knowledge of social reality (Péquignot, 2006, p. 48). It makes it possible to capture and elucidate flows of social interaction likely to reveal information that other means of investigation do not necessarily allow. Sondou et al. (2022) in their paper on access to public spaces by adolescents in Greater Lomé, photographed the ways in which adolescents make use of these urban public spaces. So, during the observation walks, they took a large number of images from which "they drew statistics that they would not have been able to obtain through observation alone, or that would have been difficult to obtain otherwise. In addition, through these images, they were able to visualise and measure how urban public spaces were occupied in Greater Lomé, and the lack of a place for adolescents there".

Photography is therefore a technique that helps to memorise a certain number of clues that are not immediately perceptible to the eye; it reflects the reality that it represents, the reality that the researcher demonstrates or exposes through his writings in text. "The image means nothing and says nothing [...] But by showing us something, it wants to tell us something. In other words, what it shows us 'symbolises' a message" (Schaeffer, 1987, p. 210). On the other hand, it can be said to "give us something to think about": "A successful photographic work does not necessarily limit itself to giving us something to see. Often it also gives us something to think about," writes Schaeffer (1987, p. 155), because it is rich in traces and clues that convey meaning. As a result, it requires special interpretation if we are to methodically and scientifically implement a process for making sense of a phenomenon. As Maresca (2001, p. 239) puts it, we need to "look at photographs instead of gliding over them; first of all, we

need to take them as an emanation of reality rather than reducing them to the mere reflection of a visual and intellectual representation that has already been elaborated". "Photography allows us to come back to information "at any time", even several years after it was taken; it conveys an image of reality on which we can stop, step back, reinterpret or investigate themes other than those initially considered. It is undoubtedly on this point that observation photography shows its supremacy over note booking; it carries with it a wealth of information that others can then take on board, even years after the shot was taken, and it responds to the possibility of change, of modifying research questions" (Chenal, 2006, p. 8)

Unlike direct observation, photographic observation makes it possible to find elements without having to rely on memory or the sometimes-imprecise notes in notebooks. Images thus become the raw material of research, in the same way as statistics, interviews or archives. It is both a means and an object of illustration and analysis. So, it's hardly surprising that the photographic approach is developing within urban studies (urban geography, urban sociology, urban planning, architecture, etc.) rather than within the other social sciences.

"If the city is a living social observatory, it is bound to use images to bear witness to social and political change" (Haicault, 2010, p. 9). Many urban studies researchers use photography in their research. For "the city and its rapid and complex transformations are fertile ground that is frequently explored using images" (Justine, interview, July 2022). "Finally, it is in the field of urban sociology studies that the use of images and their inclusion in publications appear to be the most advanced, in connection, it seems, with the highly visual culture of the architects, urban planners and geographers with whom sociologists and anthropologists working on these issues have to collaborate" (Maresca and Meyer, 2016, pp. 61–62).

However, images do not suit all urban contexts. It can be mobilized in situations where its use is appropriate. The social element in the unfolding and outcome of this process provides a good deal of support for the thesis of the intentionality of the work (Cardi, 2008). This does not, however, absolve us from the task of researching what "determines or conditions the emergence of signs, text, image and their latent or manifest meaning" (Péquignot, 2006, p. 5). This is the epistemological status of the interpretation of photography.

At a time when this technique is gradually becoming institutionalised or is taking on an increasingly important role in survey techniques, images or photographs are an ideal way for researchers to record and objectify the urban world. For some, they are a way of legitimising the results of research work. It is a particularly relevant and effective tool for illustrating local practices that can help shed light on scientific questions. Faster and more practical than drawing, less restrictive¹ and easier to use, it makes it possible to collect precise data during scientific expeditions, and facilitates inventory, restitution and other operations. While for most, photography is reduced to its illustrative function, "photography is a means of reproducing research, of analysing the transformations of urban phenomena or facts" (Hervé, interview, August 2022), "it is a source, an investigative technique that the urban researcher in the city of Lomé cannot do without" (Mintre, interview, August 2022); for Aholou (2015a) and Anoumou (2021), it plays a central, mediating and heuristic role and constitutes a new form of narrative and analytical writing aimed at producing entirely scientific knowledge. "The starting point is that photography is a social construct offering innovative perspectives on the city and its transformations. There are ways of seeing and acting here that owe a great deal to the social, in the way that the eye and taste are formed, and all the more so since the image has itself been the object of choices, sorting and successive selections by the photographer or the sociologist photographer himself" (Aholou, 2015b, p. 111).

If we can describe the photographic turn taken by urban studies in Greater Lomé in the early nineteenth century—without saying that it had not been done for a very long time—we can say that the photographic approach to the urban phenomenon or "urban studies through images", as a whole, has taken on an unprecedented dimension since the advent of digital technology. One might be tempted to say that it has become an obligation for urban researchers to use the photographic approach in their investigations. If this is the case, wouldn't it be a good idea to incorporate the visual method into training courses on survey methods?

3.3. Strong criticism of the need for training in the use of photography as a fully-fledged research tool in urban studies

Using a field survey technique to gather the information needed for research requires basic skills. As images become an integral and essential part of the culture of the younger generations of researchers (Callahan, 2020), the imperative is felt to incorporate images concretely into the palette of investigative methods in the social sciences (Meyer, 2017). Unfortunately, the use made of photography in Greater Lomé reveals some limitations. "The students who use photography in their studies have not received any training" (Agossi, interview, July 2022).

Like other data collection techniques, the use of photography has been criticised for its scientific nature. Indeed, like all qualitative and quantitative methods, the methodological use of visual resources seems to suffer from criticism linked to its presumed lack of objectivity. This kind of subjectivity trial is all the more prevalent in a discipline such as urban sociology. The subjectivity of photography through the choice of angle of view, zoom, etc. The photographs were taken according to the technical choices made by the author. The author chooses when to take the image and what elements to show.

In addition, there is the ease of access to images on the Internet and the simplicity of shooting made possible by the digital revolution, which automates technical adjustments. "Compact cameras, smartphones and digital tablets offer increased opportunities for researchers wishing to use images in their knowledge projects, provided, of course, that this use is not disconnected from a methodological and epistemological reflection on the research approach thus constructed. In fact, the functions of these devices often encourage a spontaneity in the capture and sharing of images, seemingly benign in the midst of a globalized model of the 'conversational image' (Gunthert, 2014). However, these uncontrolled uses in the social sciences, relying on the playful and attractive capacity of images, have contributed to very bad publicity and to delegitimising visual data in the eyes of many confirmed sociologists" (Meyer, 2017, p. 6).

The methodological choice of photography in the document consulted is not

subject to an obligation of reflexivity, and it is common to observe inappropriate uses of images. "The collection of images gleaned without much thought was not carried out according to a sufficiently rigorous methodology" (Bajard, 2016). Refusing to use images as legitimate material or relegating them to the status of illustrations is therefore seen as a preferable solution, rather than risking the problem of impurities in the survey data. These images also lack reliability in terms of the exact place where they were recorded. The abundance of images on the internet and social networks undermines the authenticity and reliability of the images used.

However, the use of photography is a question of culture of the discipline well assimilated by the hard sciences. And culture means learning. The use of images should therefore be the subject of specific training in urban geography, urban sociology, architecture or urban planning courses, just as it is in medical studies, in radiology for example (Maresca and Meyer, 2016). The lack of practical manuals is therefore a handicap to the development of this approach in surveys.

The use of photography opens up new avenues for thinking about the conditions under which research is carried out, but it also raises the question of how images are used, particularly for the purpose of reporting and enhancing the value of the observations made. "The hard sciences have done no different, experimenting for decades and even centuries with methods to improve them and push back their limits". Our colleagues in biology and physics do not have blind faith in images; on the contrary, they are wary of them. But they have learnt to master their biases, which means they don't have to do without them (Maresca and Meyer, 2016, p. 62). The photographic approach has its own formal code and syntax that must be learnt if it is to be used properly as a data collection technique. Lacking expert knowledge of how to use images, most researchers and students make only piecemeal, silent, uncontrolled use of them. While a growing number of researchers are producing or using images in the course of their fieldwork, very few are questioning the effects of the production or use of these 'visual data' on the survey situations created.

4. Discussion

We are in the age of the "shared image" (Gunthert, 2015). In recent years, images have become an integral and essential part of researchers' culture. Mayer (2017) speaks of the "visual turn". Whether in dissertations, articles, reports, at conferences or as part of teaching, researchers use images in different ways: as a documentation tool—a source of note-taking and a visual aide-memoire for the researcher, a found data for the researcher, it is to this end the visible diary of the researcher ; as a survey relationship tool in the sense that the researcher uses the image to involve the respondents in the survey, it becomes an interview support to discuss and elicit speech; finally, as a restitution tool—it serves as evidence, proof, illustration and scientific communication tools. As part of the urban studies in Greater Lomé (Togo), photography was used extensively by the young researchers as a reporting tool. It is reduced to its minimalist function of illustrating the object, a tool for describing and illustrating urban phenomena. Photography is seen as a copy of reality and is used as irrefutable proof. Through images, urban research brings the reality of the field into the document, allowing us to stop, step back and reinterpret (Chenal et al., 2009). It's

a tool that enables researchers to condense and shift their gaze towards issues of reflexivity in scientific work" (Du and Mayer, 2008). Photographic snapshots allow researchers to exorcise their thoughts, to get the first ideas into their thinking. To think about urban complexity, "between the hollowed-out and the fragmented, between reductive unity and senseless plurality, it is difficult to draw a portrait of the urban, constantly disfigured, constantly refigured" (Rigal, 2013).

Using images as a starting point, we can investigate other subjects or themes. Here, photography is used as an instrument to enhance the researcher's ability to remember. A simple support for recollection, not a real tool for collecting data. If photography is "a coherent collection of images" (Chalas, 2000, p. 29), which enables a conception of urban complexity to be formulated and disseminated, it is better to use it. The image is also used in urban studies as a visual mode of explanation, explicitation and enunciation of the reality perceived by researchers. While the position of observer is clearly assumed in the development of observation grids for collecting information on urban studies in Greater Lomé, the position of photographer is not. The latter is not the subject of the development of a protocol on which is thought and implemented to obtain the visual results sought. Photography is done on purpose, without any real serious involvement on the part of the researcher. Images are chosen according to what they are intended to show, as Rigal explains. "I selected the images that seemed to me to reflect the concepts and figures emitted by various ways of thinking about the urban, without looking at their origins. Much less than a history, I am writing a game of figures and concepts to understand the contemporary urban in a kind of card game" (Rigal, 2013, p. 1).

For an objective, analytical photograph, as opposed to a subjective, descriptive one, the researcher needs to develop a shooting protocol whose comparability variables depend on the research subject. By image comparability variables, we mean those that enable several realities to be compared. Usually, time (or year) and place (locality) are used as comparability variables. In addition to the use of image comparability variables, the use of machine learning methods in photography makes it possible to use photography objectively in sociological analyses of the urban fact.

The researcher who studies urban reality by photography, must adopt a deontological and objective approach. The call for deontology in the practice of photography, therefore, is intended as a constitution of referential culture preserving every photo taken from questions of image rights and social protection. Consequently, the photographic process must begin with a description of the approach, specifying the context of replicability, the method of obtaining consensus and the impartiality criteria considered by the researcher. These measures enable researchers to make an objective analysis of the observed fact.

5. Conclusion

In short, the image culture is invading the work of urban studies in Greater Lomé and forcing it to adapt and improve. Usage informs us that image can fulfil several functions in the scientific process, making them a methodology in their own right or a complementary one. Analysis of the various scientific productions in Greater Lomé allows us to distinguish at least three forms of use of photography. It is used as a source of survey data to support the data obtained by other survey techniques. It is a research technique that fits in with other techniques to provide its own information. Finally, images can tell a story, show and convey a view of the social world, showing the dynamics of social relationships in what may seem to be ordinary, natural things. They are illustrations from the field, making the work more enjoyable to read. Images provide a wealth of analytical and methodological information, as empirical material, research tools or as a means of presenting results. The image still does not have its rightful place in the field of social science methodology, primarily because its language uses a specific system of signs, distinct from the spoken and written word. The methodology of the image must forge its own rules for collecting audiovisual data, its own codes of analysis and interpretation, in order to give sociological meaning to the 'banality' of what is observed and recorded (Haicault, 2010).

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Notes

¹ Less restrictive in terms of processing, but very rigorous in terms of the techniques used to analyse the image produced in order to faithfully and objectively depict the facts.

References

- Agbemedi Y. M. (2017). Public spaces and ways of appropriating the beach in Lome (French). Mémoire de master en sociologie du développement, Département de Sociologie, Université de Lomé. 109p.
- Aholou C. C. (2015). Urban planning, social boundaries and spatial injustice in African cities? An analysis based on the 'OAU City' in Lomé and the 'CEN-SAD Villas (French). Cotonou. Les Cahiers du CELHTO, Revue inter-Africaine du Centre d'Etudes Linguistiques et Historiques par Tradition Orale, n°001-décembre 2015, Union Africaine-Niamey. pp. 255-276.
- Aholou C. C. (2015a). From "unfinished city" to "sustainable city"? (French). Analyse des villes ouest-africaines à travers le prisme du développement durable, Revue Interafricaine de Philosophie, Littérature et Sciences humaines, MOSAÏQUE, 017, 215-227
- Aholou, C. C. (2015b). Education for research and knowledge production in French-speaking African cities: a question of comparative approach? (French). EDUCOM, revue du CEROCE, Lomé, 95-119.
- Aholou, C. C. (2021). From monocentric to polycentric city: Limousine, dynamics of a secondary pole in Greater Lomé (French).

Revue de l'Institut de Recherches en Sciences Humaines-IRSH, Mu Kara Sani, 34, 26-41.

- Ahombo, K. M., (2020). From road rehabilitation to the proliferation of drinking establishments in Avédji: socio-spatial determinants [Master's thesis] (French). Université de Lomé. p. 141.
- Amewossina, F. S. A. (2020). Precariousness and unequal access to urban resources in Katanga (Greater Lomé): a question of spatial justice? [Master's thesis] (French). Université de Lomé. p. 105.
- Anoumou K. R. (2017). No access to water and electricity in the canton of Légbassito (Greater Lomé) (French). In: Edinam, K., Koffi, N. (editors). Tsigbé, Coffi Cyprien Aholou, Dodji Amouzouvi, Dynamiques locales dans les Afriques en mutation. Cotonou. pp. 162-179.
- Anoumou, K. R. (2018). The right to stay, a rationale for claiming ownership of space in TP-3 (Greater Lomé) (French). Etudes Togolaises, 12(02), 91-101.
- Anoumou, K. R. (2021). Spatial justice and access to electricity: a cross between greater Accra and greater Lomé [PhD thesis] (French). Université de Lomé. p. 318.
- Awlime, K. A. (2021). Metropolization and governance of Greater Lomé in relation to the Autonomous District of Abidjan [PhD thesis] (French). Université de Lomé. p. 325.
- Bajard, F. (2017). "Wild" uses of images. Experience feedbacks on an ordinary practice of visual sociology. Images Du Travail, Travail Des Images, 3. https://doi.org/10.4000/itti.1065
- Callahan, W. A. (2020). Sensible Politics: Visualizing International Relations. Oxford University Press. https://doi.org/10.1093/oso/9780190071738.001.0001
- Cardi, F. (2014) Domination at school: photography as a point of view and as data for research (French). Ethnologie et mathématique, 29.
- Chalas, Y. (2000). The invention of the city (French). Paris: Anthropos.
- Chauvin, P. M., and Reix F. (2013). Interests and difficulties of using images as research tools in sociology (French). In: CinémAction. sociologie de l'image, sociologie par l'image. numéro thématique dirigé par r. hamus-vallée. pp. 149-156.
- Chenal, J., Pedrazzini, Y., Cissé, G., Kaufmann, V. (2009). Some streets in Africa. Observation and management of public space in Abidjan, Dakar and Nouakchott (French). Available online:

https://www.academia.edu/35524682/La_rue_la_photographie_l_observation_et_l_anthropologie_visuelle_tentative_de_des cription_d_une_m%C3%A9thode (accessed on 3 May 2024).

- Ciera. (2012). The uses of photography in urban research (French). Available online: https://ciera.hypotheses.org/376 (accessed on 3 May 2024).
- Collier, J., Collier, M. (1986). Visual Anthropology: Photography as a Research Method. Mexico, the university of new Mexico press.
- Dubois, P. (1990). The photographic act (French). Available online: https://www.librairie-gallimard.com/livre/9782091907666-l-acte-photographique-philippe-dubois/ (accessed on 3 May 2024).
- Duminy, J., Andreasen, J., Lerise, F., et al. (2014). Planning and the Case Study Method in Africa. Palgrave Macmillan UK. Available online: https://link.springer.com/book/10.1057/9781137307958 (accessed on 3 May 2024).
- Gunthert, A. (2014). The conversational image (French). Études photographiques, 31, 54-71.
- Gunthert, A. (2015). The Consecration of the Selfie: A Cultural History (French). Available online: http://journals.openedition.org/etudesphotographiques/3529 (accessed on 25 January 2024).
- Haicault, M. (2010). Can image methodology be useful for social science research? (French). Available online: https://shs.hal.science/halshs-00498016/ (accessed on 3 May 2024).
- Harper, D. (2002). Talking about pictures: A case for photo elicitation. Visual Studies, 17(1), 13–26. https://doi.org/10.1080/14725860220137345
- Keme D. R. (2020). Insalubrity and the solid waste management system at the Attikpodji market in Greater Lome [Master's thesis] (French). Université de Lomé. p. 109.
- La Rocca, F. (2007). Introduction to visual sociology (French). Sociétés, 95(1), 33-40. https://doi.org/10.3917/soc.095.0033
- Lieberman. R. (1995). Thoughts of an Art Historian/Photographer on the Relationship of His Two Disciplines. In: Helene Roberts, H., Bergstein, M. (editors). Art History through the Camera's Lens. pp. 217-246.
- Logan K. E. (2020). Soft modes of urban mobility: perceptions and constraints of bicycle travel in Greater Lomé [Master's thesis] (French). Université de Lomé. p. 106.
- Maresca S., Meyer M. (2013). A Précis of Photography for Sociologists (French). Rennes, PUR, 109.

Maresca S., Meyer M. (2016). Social sciences and photography (French). Parcours commenté et image, eso, travaux & documents, 41, 61-65.

Mauss, M. (1967). Handbook of ethnography (French). Paris, coll. Petite Bibliothèque, Payot.

Meyer M. (2017), From object to tool: photography for observation in the social sciences [PhD thesis] (French), Available online: http://www.recherche-qualitative.qc.ca/documents/files/revue/hors_serie/HS-22/rq-hs22-meyer.pdf (accessed on 3 May 2024).

Meyer, M. (2008). Photographing urban social landscapes: visual itineraries in the city (French). ethnographiques.

- Pequignot B. (2006). On the use of images in social science (French). Available online: https://www.persee.fr/doc/comm_0588-8018_2006_num_80_1_2372 (accessed on 3 May 2024).
- Piette A. (1996). Ethnography of action, observation of details (French). Paris, Métaillé.
- Prosser J. (1998). Image Based Research: A Sourcebook for Qualitative Researchers. London, Falmer press.
- Rigal, A. (2013). Urban design in figures (French). Available online: https://www.espacestemps.net/en/articles/concevoir-lurbainen-figures/ (accessed on 3 May 2024).
- Samon, S. P. (2021). Waste management and environmental safety in Greater Lomé: between decision-making contradictions and spatial injustice? [PhD thesis] (French). Université de Lomé. p. 363.
- Schaeffer, J. M. (1987). The precarious image. On the photographic device (French). Paris, Le Seuil.
- Sondou, T., Tossim, M. J., & Aholou, C. C. (2023). Road infrastructure, a non-inclusive design in Greater Lomé (Togo) (French). Journal de la Recherche Scientifique de l'Université de Lomé, 1, 309-328.
- Sondou, T., Aholou, C. C. et Chenal, J. (2022). City and adolescence: urban public spaces for adolescents in Greater Lomé (French). In: Proceedings of the 7th and 6th REAF and JCEA meeting days; 27 June–1 July 2022; Toulouse.
- Terrenoire, J. P. (1985). Images and social sciences: object and tool (French). Revue Française de Sociologie, 26(3), 509. https://doi.org/10.2307/3321747

Yin, R. K. (2009). Case study research: Design and methods, 4th ed. Thousand Oaks, CA: Sage.