Fumitoshi Kato

Seeing the "Seeing" of Others: Environmental Knowing through Camera-Phones

Mobile phones are everywhere. There is always a mobile phone within an individual's reach, and information necessary in everyday life is now being stored inside the mobile terminal. And the uses of mobile phones are changing the ways in which we shape and reshape our day-to-day activities. Currently, non-voice functions are becoming popular and accepted add-ons. Particularly, in Japan, with the advent of a terminal with a photo mail function (launched in November 2000), we began to communicate through exchanging photos over mobile phones. Because of the convenience of taking, sending, and publishing the photos, the use of mobile phones, as cameras, may increase one's opportunity to generate "life documents"[1] within a sequence of daily events.

In the context of developing a qualitative research method, the camera-phone can be understood as a new device for conducting field studies, because it enables us to record and compile researchers' diverse standpoints as a set of photos. Especially, it can capture a series of micro-moments embedded within an individual's day-to-day activities.[2]

A New Mode of Photo Taking

In a survey (N=2,308) by Mobile Content Forum, approximately 90% of all the respondents had terminals equipped with a camera function.[3] Among them, 13.3% of the users answered that they use their cameras on a daily basis, while 60.6% of them use the cameras occasionally. Thus,

[1] Ken Plummer, *Documents of Life: An Introduction to the Problems and Literature of a Humanistic Method*, London: George Allen & Unwin, 1983; Ken Plummer, *Documents of Life-2: An Invitation to a Critical Humanism*, London: Sage, 2001.

[2] The present paper is based partly on: Fumitoshi Kato and Aiko Shimizu, "Moblogging as Face-Work: Sharing a 'Community-Moblog' among Project Members", prepared for the PICS (Pervasive Image Capture and Sharing) Workshop, *UbiComp2005*, Tokyo, Japan, 2005.

[3] Mobile Content Forum, *K-tai White Paper 2005*. Tokyo: Impress Co., 2005.

nearly 75% of them are actually using the cameras on their terminals. The same survey asked what kind of photos people take with their cameras on mobile phones. Respondents were allowed to give multiple answers, and 49.4% of them said "scenery", followed by "family" (37.5%), "friends and acquaintances" (35.9%), and "use it as visual memos" (34.9%).

Another survey found that "recording and commemorating interesting or unusual things in everyday life" is regarded as one of the major usages of cameras attached to mobile phones.[4] It suggests that a new mode of more pervasive photo taking is emerging through the use of mobile phones,[5] and it contributes, to some extent, to change the ways in which we record and preserve our "life documents" on a daily basis.

Given the present context, how does the use of camera-phones change our mode of knowing, especially in terms of ethnographic research method? How do they affect our communication processes, as well as our learning? Further, what are the possibilities of camera-phones to preserve and share public images of the community? In order to examine these issues, I will refer to a case of field study conducted in *Shibamata* area in Tokyo, Japan.

Conducting a Fieldwork with Camera-Phones

Procedure

The present field study consists of three steps that are closely interrelated. Each step has its own emphasis in terms of our process of knowing. The design of the learning process is primarily based on the theory of experiential learning[6] and grounded theory approaches,[7] and it unfolds in three steps. As shown in Figure 1, these three steps of a field research create a cyclic process of learning.

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[4] See http://japan.internet.com/research/20030602/1.html (2003).

[5] Fumitoshi Kato, Daisuke Okabe, Mizuko Ito and Ryuhei Uemoto, "Uses and Possibilities of the Keitai Camera", in Mizuko Ito, Daisuke Okabe and Misa Matsuda (eds.), *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life*, Cambridge, MA: The MIT Press, 2005, pp. 301–310.

[6] David Kolb, *Experiential Learning: Experience as the Source of Learning and Development*, Englewood Cliffs, NJ: Prentice-Hall, 1984.

[7] Anselm Strauss and Juliet Corbin, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, Newbury Park, CA: Sage Publications, 1990.

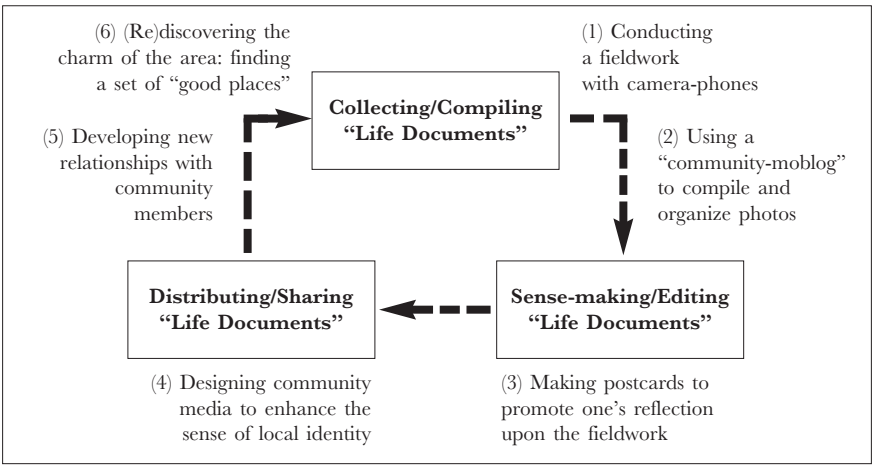

Figure 1
Research process: Environmental knowing with a camera-phone

Seeing: Collecting Data with Camera-Phones

In the first step, a primary purpose is to collect and compile photos using a camera-phone. I have been using a setting such as a "community-moblog"[8] in order to support the process of data collection in field studies. A researcher can send a photo directly from his/her camera-phone to a website, together with a time-stamp and a fieldnote. These photos can be understood as a pile of "life documents" with which one can begin to weave a story about his/her experiences in the field.

Seeing the "Seeing" of Oneself: Making Sense out of Photos

The next step of the study is to select and edit a set of photos. After the fieldwork, researchers are asked to select photos, and to write a short essay (report) to illustrate one's experience of his/her fieldwork. If there are ten researchers, for example, there are at least ten viewpoints to ob-

[8] Fumitoshi Kato and Aiko Shimizu, *op. cit.*; Fumitoshi Kato, "Learning through Mobile Cameras: On the Use of 'Community-Moblog' for a Project-Based Learning", presented at *JSICR 22nd Conference*, Yokohama, Japan, 2005 (in Japanese).

serve and understand the area under study. Through this process, one has to distance oneself from the situation within which he/she was embedded. It triggers a mode of self-reflection, in that one has to look back and make sense of things and events he/she observed during the fieldwork.

Seeing the "Seeing" of Others: Sharing Photos with Community Members

In the context of community development, it is important to distribute the result of the research back to the community members. As a way to distribute the images of community, the photos and texts are organized into a set of postcards. I suggest that a postcard is a handy, useful medium for presenting one's experiences in the field. It creates an opportunity to open up the storage of a camera-phone and convert them into a stream of personal stories. A postcard enables us to browse multiple photos simultaneously, and to share images of the community with others.

By distributing these postcards, one can begin to develop a new relationship with community members. This process triggers to pursue a collection of additional photos, as well as an invitation of new members to the research project. This cyclic process may expand the scope and perspective of the research itself.

A Field Study in *Shibamata*, Tokyo

Background

In an attempt to explore the possible use of camera-phones for a qualitative research method, and to examine the applicability of such method for community development, we conducted a series of field studies in *Shibamata* area in Tokyo, Japan. *Shibamata*, located in the eastern part of Tokyo, is a temple town where traditional Japanese streets, buildings, and lifestyles are well preserved. *Shibamata* is well known for the movie titled *Otoko wa tsuraiyo* ("It's tough being a man"), which is one of the most famous movies in Japan. Since its first episode in 1969, the movie has been released as a long-run series. That is to say, *Shibamata* area itself was in tune with the calendar of the movie production, in that director, producers, and actors/actresses, all worked there on a regular basis. Also, as the movie was on location, residents in the area collaborated in the process of its production. It was a line of regular and continuous events, and the movies and the makings of them contributed to build images of the area. The series ended in its 48th episode, as *Kiyoshi Atsumi*, the leading character of the series, passed away in 1996. Since then, the area is experiencing a

gradual decrease in the number of tourists and visitors. Thus, for the community members, an important issue was to somehow revitalize the area to attract more visitors, and to seek a new local identity.

Given such context, we were asked to conduct a small-scale field survey to reexamine the charms of the area. It was expected that we will be able to (re)discover the "great good places"[9] within the community, primarily from the viewpoint of a younger, post-movie generation. In fact, almost all the members who participated did not have opportunities to watch the movie *Otoko wa tsuraiyo*, and did not have images or pre-understandings of the area. It was, then, the first time for most of them to visit *Shibamata* area.

Phase I: Observing as a "Stranger"

On November 3, 2004, we conducted a fieldwork in *Shibamata* area, in which twenty-one students (a mixed group of undergraduate and graduate students) participated as researchers. A map of the area was distributed to the researchers, and they were asked to walk around the area by oneself or with a company, taking photos with their camera-phones. Starting shortly before noon, the fieldwork lasted for about six hours. While strolling and discovering the sights, they were free to shop around, to stop by for sweets, or to stay at one's favorite spot for observation. In this phase, students conducted a research as "strangers", as outside observers. In other words, they did not have to intervene into the daily lives of the community members.

In advance to the fieldwork, we set up a website (a weblog) for collecting and storing photos, as visual fieldnotes. This setting may be called a "community moblog" to which registered researchers can send photos directly from their camera-phones. During their fieldwork, participants were encouraged, but not limited, to send their photos to the website. In that afternoon, approximately 280 photos were taken with camera-phones and uploaded to the site.

As mentioned, after the fieldwork, researchers were asked to select photos, and to write a short essay to illustrate one's experience in the field. Then the photos and texts were organized into a set of postcards (see Figure 2 for samples). Approximately three weeks after the fieldwork, we made twenty-three kinds of postcards, altogether, each of them carrying photos and texts.

[9] Ray Oldenburg, *The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community*, New York: Marlowe & Company, 1989.

Figure 2
Conducting a fieldwork in Shibamata *with camera-phones (November 3, 2004)*

The final phase involved an attempt to juxtapose and exchange different viewpoints about the area. As mentioned, each researcher's understandings about *Shibamata* area were organized into a form of postcard. A set of photos selected highlighted the objects and/or events of the area, and the texts on the back depicted one's process of understanding the area. We placed these postcards at local banks and stores in *Shibamata*, and distributed them free to the community members. Several residents in the area who happened to pick up our postcard(s) sent us letters and postcards with their comments and suggestions about our research project. In this manner, we have developed new relationships with the com-

Figure 3
Sample postcards

munity members, gaining a closer access to their day-to-day activities in *Shibamata*.

Phase II: Observing as a "Temporal Resident"

On April 17, 2005, approximately six months after the first phase of the research, we conducted a fieldwork again in *Shibamata* area. This time, twenty-five students (a mixed group of undergraduate and graduate students) participated as researchers. One of the emphases of this phase was to obtain a standpoint of an "insider", rather than that of a "visitor". Acknowledging the importance of developing close (closer) relationships with the members of the local community, this phase was designed to function as a sort of on-the-job training.

Though this was only the second time to participate in the field research in *Shibamata* for some of the students, it was expected that researchers are to practice and experience a mode of participant observation in this phase. 11 stores (e.g., a pickle-store, sweet-shops, and restaurants), mostly located along the approach to the temple, offered students opportunities to work as new employees there. Thus, 2 to 4 students were "dispatched" to one of eleven stores, and worked there during the day. Students were told to follow the instructions from the master of the store they went to, and at the same time to try to take photos with their camera-phones (see Figure 4 for an illustration). Starting shortly before noon, the fieldwork lasted for about five hours.

Figure 4
Learning-by-working in Shibamata *(April 17, 2005)*[10]

[10] With a collaborative support of stores and shops in the area, students could obtain a viewpoint as a "temporal-resident".

Again, we utilized a website for collecting and storing photos, as visual fieldnotes. During their fieldwork, their on-the-job research, participants were encouraged to send their photos to the website. As compared to the previous research it was rather difficult to take photos and send them to the website, because they were actually involved in their work at stores. Particularly, because it was a Sunday afternoon, many of the stores were crowded with visitors. On that afternoon, approximately 250 photos were taken with camera-phones and uploaded to the site.

Again, after the fieldwork, students made twenty-five kinds of postcards altogether, each of them carrying a store logo, photos, and texts. This time, we also printed a QR-code (2-dimensional barcode) which can be scanned (read) via camera-phones. In the code, information about the store (street address and phone number) was embedded. Also, a greeting message from the master of the store was recorded, and embedded as a pointer (URL) to the website. By accessing the website, via QR-code, one can listen to the store masters' voices (sound files) on his/her phone.

Discussion

POST as a Method

Theoretically motivated by the ideas of experiential learning[11] and grounded theory approach,[12] inspired by the "method cards" by IDEO,[13] and acknowledging the usefulness of the postcard as a medium, I have been designing a set of postcards to learn about the basics of conducting a field research. Together with a camera-phone, a deck of postcards can be used as a textbook, a town guide, or a series of quotable sayings (lessons). As of this writing, there are about 60 kinds of postcards, and they are categorized by one of the following keywords: Practice, Observe, Search, and Think. One can select and combine different cards to organize them within the context of his/her learning. Also, as they are postcards, one can simply send them to friends and colleagues, and thereby spread the idea of environmental knowing with a camera-phone.

Practice

A card in this category has a simple exercise or a hint how one can

[11] David Kolb, *op. cit.*

[12] Anselm Strauss and Juliet Corbin, *op. cit.*

[13] IDEO Method Cards, http://www.ideo.com/methodcards/MethodDeck/index.html.

experiment in the field. For example, issues such as how to keep a "proper" distance from the subject, the importance of a time-lapse recording, and how to position oneself in the field, etc., are arranged as exercises. With a card and a camera-phone, one can learn about the basics of qualitative research method. I have been using these postcards in the introductory course on qualitative research method (for undergraduate students) by having the students take photos with their camera-phones.

Observe

Each card in this category can be understood as a visual fieldnote. Postcards created out of the present research are included in this category. A card illustrates the ways in which a researcher conducted a field study, together with his/her ethnographic accounts. By comparing and juxtaposing different cards, that is to compare multiple viewpoints, one can begin to understand the relationships between snapshots (fragments) of the area under study.

Search

On the postcards in this category, useful quotes and sayings are sited, together with photos taken by camera-phones. For example, Gregory Bateson and Margaret Mead on using photographs, Walter Benjamin on

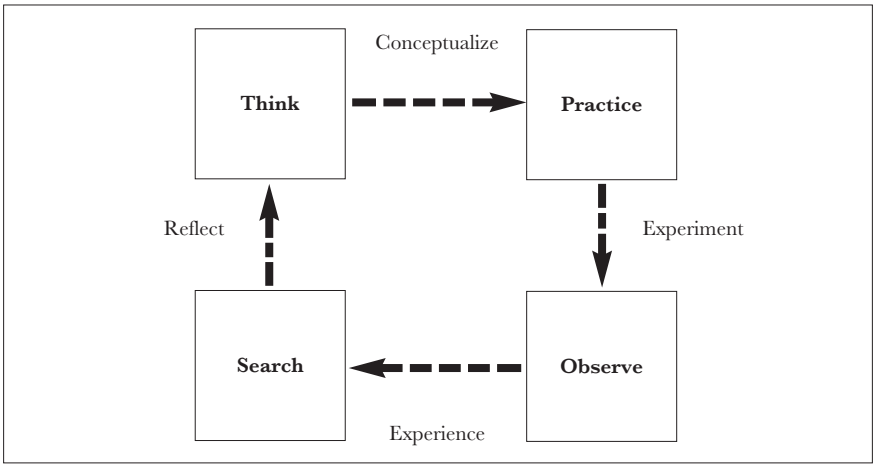

Figure 5
POST as an experiential learning cycle

strolling, and well-known Japanese scholars on conducting fieldwork, etc., are cited. These postcards can be used as a deck of reference cards that promote one's reflective observation about his/her experiences in the field.

Think

Cards included in this category are for conceptualizing one's experiences in the field. They contribute to critically (re)examine one's concrete experience, and to "translate" it into an abstract concept. In other words, cards will provide one with a set of vocabularies to describe the situation, and to establish a link between the research and one's day-to-day activities in the past (or future). As shown in Figure 5, the use of postcards in this category may lead to subsequent practices and experimentations in the field.

Mapping Oneself onto the Field

We use a map when we need to locate ourselves, and to specify the path that leads to our destination. Sometimes, we are not even certain about where to go, but still we use a map to understand spatial relationships between ourselves and the surroundings. The use of a map contributes to create an image of one's location. Among many things, one of the most important things we do with a map is to gain, though often this is not consciously acknowledged, two different views. And as I will illustrate, we constantly alternate these two views in order to steer ourselves.

Environmental-View

Suppose that I am in *Shibamata*, standing somewhere on the main street, heading toward the temple, for example. What I "see" is the path that leads to the temple (see Figure 6 Left). At this stage, I can only understand the area by a set of fragments (snapshots) of the area. This view is dependent upon a combination of at least three factors: (a) the spot where I am standing, (b) the direction to which I am looking, and (c) the range that I can "see". In other words, my position is situated at a specific location, and thereby what I can "see" is specified by the very nature of myself occupying a certain location. I will call this an environmental-view. From this view, I cannot "see" what is behind myself, or, by definition, I cannot "see" what is (what seems to be) out of my range.

During the fieldwork, that is the very first phase of one's "seeing", a researcher is thrown into the situation, and may not have a stable repre-

Figure 6
Left: Environmental-view[14]
Right: Bird's-eye-view[15]

sentation of the area. In the first phase of the present research, because most of the participants visited the area for the first time, their primary focus was on taking photos with their camera-phones, and on capturing images of the town.

Bird's-Eye-View

The environmental-view is specified by the location from which one is "seeing". That very location can be understood only by gaining an access to a bird's-eye-view: that is to create a "map". With a "map", I can gain a view as if I were flying above the path that connects two nodes (see Figure 6 Right). This view can be referred to as a bird's-eye-view. To gain an access to the bird's-eye-view, one has to create a map that contains him/herself, its user, of that map. During the process of selecting and editing photos, one begins to make sense of the area by understanding the relationships between fragments (snapshots) of the area. When a "map" is available, an individual can locate oneself, probably for the first time, in relation to his/her own environmental-view.

[14] When seeing from an environmental-view, what I see is a path toward the temple. At this stage, one can only understand the area by a set of fragments (snapshots) of the area.

[15] From a bird's-eye-view, what I can see is myself inside the map, facing the temple. At this stage, one begins to understand the spatial relationships between fragments (snapshots) of the area (from Alps Mapping K.K., CyberMap Japan Corp.).

Environmental Knowing Through Camera-Phones

As illustrated, when we read a map, we are seeing things alternately from at least two different views. In fact, without having these two views, it may not be possible to use the map. And the act of switching views is very pervasive, embedded into our day-to-day practices. It seems so natural that we do not make this characteristic an issue, and we are not even sure about how we have learned the way to gain a bird's-eye-view. In understanding the relationships between an environmental-view and a bird's-eye-view, we can begin to discuss about diverse understandings regarding one's environmental knowing. While looking and browsing a stack of postcards, he/she will constantly construct him/herself as occupying several different standpoints. This is one of the major contributions expected from the present approach. By letting us (or forcing us) constantly change our standpoints, it eventually helps us to escape from a possible entrapment into one's own way of seeing.

By knowing that an individual is actively engaged in alternate shifts between two different views, he/she may become aware of a set of assumptions and understandings about the life of the local community. This points to the possible contributions of camera-phones for community development, for they may enable experiential learning processes. Mobile phones and their cameras may play a significant role as a trigger to critically (re)examine the surroundings within which one is embedded. Hayden suggests that a socially inclusive urban landscape history can become the basis for new approaches to public history and urban preservation. As she writes:

> A more inclusive urban landscape history can also stimulate new approaches to urban design, encouraging designers, artists, and writers, as well as citizens, to contribute to an urban art of creating a heightened sense of place in the city. This would be urban design that recognizes the social diversity of the city as well as the communal uses of space, very different from urban design as monumental architecture governed by form or driven by real estate speculation.[16]

The present exploration suggests that the use of mobile phones and postcards creates a participatory mode of knowing, creates an opportunity to reflect upon one's ways of seeing, as well as seeing the "seeing"

[16] Dolores Hayden, *The Power of Place: Urban Landscapes as Public History*, Cambridge, MA: The MIT Press, 1995, pp. 12 f.

of others. A camera-phone can be utilized as a useful "gear" in conducting a field research, as our practices of photo-taking are changing. Particularly, it enables researchers to collect and compile images of the local community. Once selected and edited in the form of a postcard, visual images, and the sharing of them, may enhance our awareness about the resources of the community. Photos compiled can be examined in terms of understanding the characteristics of the local community, and more interestingly, they lead us to speculate upon multiple viewpoints of ourelves. Shared images may connect people together, functioning as "community-builders".