

How an Age-old Photo of Little Chicks Can Awaken Our Conscience for Biodiversity Conservation and Nature Protection

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“Kingfisher knows he is quite handsome, so he often admires himself in the reflection of the pond. [...] However, due to his rather eccentric personality, Kingfisher rarely communicates.”

In “Fragile Pride”; *The Kingfisher Story Collection* (2022a)

Humans experience a profound and indescribable emotion when they unearth artifacts from ancient times. Scientific disciplines like paleontology and archaeology reflect our curiosity and desire to understand the natural world's past and evolutionary history. Physics also invests significant effort in exploring the origin and evolution of the universe. In social life, the study field of humanities also has journals about art history, such as the *Art History* or *Journal of Art History*. Through our shared thoughts and efforts to restore humanities for the cause of ecological and biological conservation, we have discovered a picture of a kingfisher taken nearly a century ago by A. F. Skutch in *The Condor* (Skutch, 1957). Obtaining such a vivid, genuine, and emotionally evocative image was no easy task. This image has the power to stir the thoughts and awaken the conscience of the viewer, emphasizing the importance of a vibrant environment (see Figure 1).

“Naive little chicks in the kindergarten”

Unearthing this seemingly buried image, obscured by the passage of time and overshadowed by numerous contemporary interests, was not obvious and straightforward. First, this search was a continuation of our long-standing interest before, during, and after our article on connecting humanities to the ecological conservation mission through the image of kingfishers appearing in *Pacific Conservation Biology* (Vuong & Nguyen, 2023). Furthermore, the value of the article and its images, authored by A. F. Skutch and published in 1957, were recognized through the principle of serendipity (Vuong, 2022b).

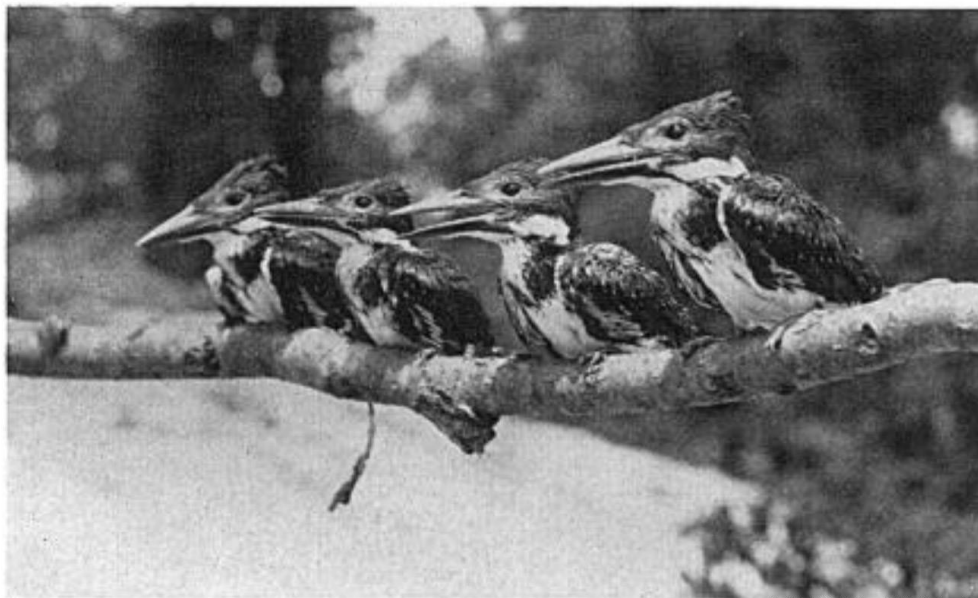


Fig. 3. Nestling Amazon Kingfishers, 18 days old; near Tela, Honduras, May 24, 1930.

Figure 1. “Naive little chicks in the kindergarten,” from Skutch (*The Condor*, 1957).

Upon careful examination of the painting, the image's name, as mentioned earlier, almost immediately comes to mind without the need for any linguistic refinement. The title of this

1930 photograph reflects a few details that can evoke emotions. First and foremost, one can easily recognize the innocence of the Amazon kingfisher chicks. At 18 days old, the world is entirely new and curious to them. Their eager expressions are reminiscent of children eagerly awaiting Christmas presents from Santa Claus. It can be assumed that the gifts for these chicks are much simpler: food. At this age (18 days), they are not yet capable of hunting for food on their own. Finally, the term “kindergarten” emerges from the way the four kingfishers are lined up neatly on the branch. All four exhibit a very “uniform” appearance, but it is entirely natural, reflecting a form of social interaction that is very “non-kingfisher” characteristic (The reason for saying “non-kingfisher” will be clarified later.)

This image, along with a couple of other images in A. F. Skutch’s 13-page article published almost a century ago, transcends mere biological life cycle descriptions or descriptions of kingfisher characteristics in adulthood. It prompts profound reflections on the value of humanity in the battle for habitat conservation and the quest to reconnect people with the natural world harmoniously and coexistently. This is particularly significant as human activities directly impact the loss of wild natural habitats, greenhouse gas emissions cause temperature fluctuations and disturb wildlife’s long-standing growth conditions, and destructive exploitation of nature still occurs at an alarming rate (Armstrong McKay et al., 2022; Cooke et al., 2023). For species sensitive to environmental changes like the kingfisher, temperature fluctuations and alternations in growth conditions pose a higher risk of extinction for some critically endangered kingfisher species (Barik et al., 2022; Shifa et al., 2023; Tyler & Younger, 2022).

The quest for humanistic values for the cause of biodiversity and nature protection

Limiting the impacts of “anthropogenic stressors” remains challenging despite increasing awareness of its urgency among scientists and the general population. One reason is the difficulty of translating thoughts and awareness into practical action.

However, there is an observation to be made. If someone has been moved by the beauty of nature and has come to appreciate the value and beauty of life in the natural world, they are more likely to have sown the seeds of humanistic values that align with the quest to seek solutions to protect nature and preserve biodiversity.

It can be stated as follows: The earlier children are exposed to and appreciate the value and beauty of life in the natural world, the more opportunities they have to develop their own humanistic values. They will develop a value system incorporating those values and aesthetics as they grow into adults. The presence of nature in their retinas and the subsequent memories of a child will later create connections, recollections, and reminders of the value of the environment and ecology regularly (Reason & Gillespie, 2023). This is the

ideal starting point for the quest for humanistic values for the purpose of nature conservation and biodiversity preservation.

Now, let's return to what is referred to as the "non-kingfisher" characteristic of the image above. Kingfishers are generally known for being solitary, essentially shy, and characterized by their still, focused, perching behavior (Eliot et al., 2009; Reason & Gillespie, 2023; Renila et al., 2020; Vilches et al., 2013). Kingfishers are typically only seen as not solitary when breeding or caring for their young chicks (Morgan & Glue, 1977; Reyer, 1980). In their adult lives, they dive down to catch fish incredibly quickly, earning them the playful "royal titles" in *The Kingfisher Story Collection* (Vuong, 2022a), and their proportion of "meditation" time increases. However, the image above presents a "group activity" appearance. When viewing the image, the author himself (QHV) immediately traveled back in time to when he lined up at a kindergarten in Hanoi, waiting for his turn to receive lunch, around the mid-1970s. During this time, Vietnam had just ended the war against the United States, and while bombings had ceased, food was still in short supply.

Essential elements in restoring the missing bond

Art, painting, and literature. For a long time, kingfishers have appeared in various works of art and literature, even in sculptures in ancient Egyptian nobility tombs or mosaic paintings from the Greco-Roman civilization (El Menyawy, 2020; Eliot et al., 2009; Tammisto, 1985). If we consider A. F. Skutch's photograph in *The Condor* from 1957 as an antique artifact, then the connection to contemporary art, literature, and expression brings a fresh perspective to the era with a new flow of information. This has helped both authors like us receive sharing and approval from discerning readers, including editors and reviewers, as the image of kingfishers was introduced as a symbolic representation of nature (Barik et al., 2022; Vuong & Nguyen, 2023). Below is a watercolor painting of a kingfisher, seemingly coincidentally representing the Amazon kingfisher featured in Skutch's photograph (see Figure 2).



Figure 2: “Kingfisher appalled by violence”: Watercolor by Bui Quang Khiem. ©2017 Quan-Hoang Vuong.

Bringing education closer to nature. High-value and long-lasting memory-preserving qualities in the image, especially after nearly a century, will permeate efforts in science communication through thought-provoking questions such as: What if this image can never be encountered again because this kingfisher species has completely disappeared, a victim of habitat loss? If this photograph is shown to young children, they are likely to notice the feather tuft on the kingfisher’s head. The tufts on these four chicks appear to be untidy hair despite the fact that kingfishers are exceedingly meticulous about cleaning and preening their feathers. Or conversely, it may be compared to the gelled hair of some “playboys,” who spend a lot of money on their impressive hairstyles. Either way, children will find it intriguing. In any case, education becomes more natural and humane. Aren’t education

researchers striving to bring children closer to the natural environment? Whether or not children like it depends largely on the attractiveness of the information presented to them (see Figure 3).

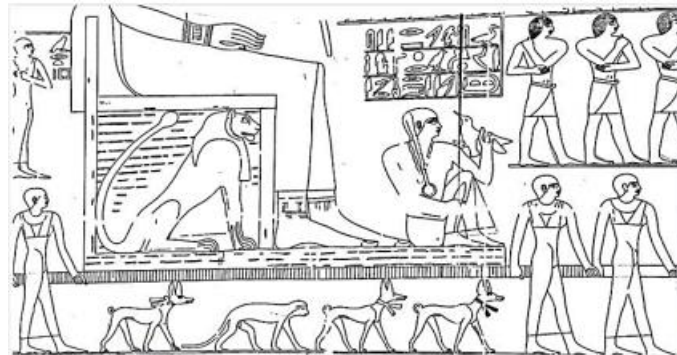


Figure 3: “A child holding a kingfisher by his left hand”: Retrieved from El Menyawy (2020) under CC-BY-4.0. A scene from the tomb chapel of Wtatkhetor, wife of Merruka (one of most powerful officials during the Sixth Dynasty of Egypt) and daughter of king Teti (the first king of the Sixth Dynasty of Egypt). The Sixth Dynasty is considered as the last dynasty of the Old Kingdom of Egypt, spanning 2305-2152 BC.

AI and “serendipity.” AI is a revolution, and the emergence of ChatGPT has heated up the information race. The research community is also anticipating the new role of generative AI and potentially Artificial General Intelligence (AGI) in the fight against climate change and ecosystem destruction. With the ability to create new information combinations from mountains of old information, AI also greatly supports the harnessing of serendipity’s power, a form of information processing capability that drives changes in perception and action stemming from (and having the characteristics of) demands for survival skills (Vuong et al., 2023), such as how AI is assisting drug development research (Paul et al., 2021). This enhances humanistic values in dealing with environmental apathy, such as “who cares” (Vuong & Ho, 2024).

With the image of Skutch, we also have an answer to the question of how much expense is justifiable for science. When science awakens humanistic values and conscience for life, the image is priceless, even when the cost of capturing it is negligible (Vuong, 2018). Furthermore, the value of publications has helped store, convey, and increase new awareness of old artifacts, making them invaluable.

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