FACTS FOR BABIES: VISUAL EXPERIMENTS AT THE INTERSECTION OF ART, SCIENCE AND CONSUMERISM IN EDUCATION

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ABSTRACT

The paper takes as its point of departure a particular photography book, *The First Picture Book: Everyday Things for Babies*, first published in 1930 and aimed at young children. The book's origins can be traced back to a collaboration between Edward Steichen, his daughter Mary Steichen Calderone, and the Bureau of Educational Experiments. Founded in New York in 1916, the latter focused its work on developmental child psychology and progressive educational practices. The paper analyses how the materiality of things and artefacts, sensory vision, and science-based concepts of child development were forming a conceptual alliance with photography as a mode of 'objective' display. In addition, it explores how photographic techniques became a tool to foster new ways of seeing within the domain of education while at the same time aiming at societal transformation.

KEY WORDS

Photography; Visual observation; Child psychology; Progressive education; Consumerism.

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> Experimenting is one of the epistemological fundamentals of modern science, a «machine for making the future» that is constantly assuming new forms under changing conditions.
> Rheinberger, *Epistemische Dinge*, *2003*, *p. 377*

INTRODUCTION

At the centre of this essay is a particular children's book, *The First Picture Book: Everyday Things for Babies*. It will be analysed in view of associated norms underpinning science-based approaches in education and a specific ethos of progressive educational praxis. Designed for young children, *The First Picture Book* was initially published in 1930. Its origins can be traced back to a collaboration between Edward Steichen, his daughter Mary Steichen Calderone,[1] and the New York City-based Bureau of Educational Experiments (BEE), founded

1 Mary Steichen Calderone (1904-1998) from the late 1950s onwards became a well-known physician and US American activist for sex education, the legalization of abortion, and planned parenthood. She was the first director of the Sexuality Information and Education Council of the United States and author of several books on sexuality and sex education.

in 1916 by Lucy Sprague Mitchell[2] and others.[3] The BEE focused its work on developmental psychology and progressive education, both of which aimed to promote «effective autonomous individuality», «social commitment», and a world based on rational humanity, participation and cooperation (Biber, 1984, p. xiii; see also Bank Street). In one of its first bulletins, in 1917 the BEE described itself as an institution that «is made up of a group of persons who are engaged in first-hand efforts for improving the education of children, and who have all shared in the general movement that has brought about a more scientific study of them» (*Experimental Schools*, 1917, p. 3).[4]

A 1928 book entitled *Children in the Nursery School* described the theoretical and pedagogical framework of one of the BEE's initiatives in early education for under-three-year-olds, which had been set up in 1919. The book's author, Harriet Johnson, had been the BEE Nursery School's director since 1920, and the book was meant to provide a comprehensive overview of the daily pedagogical praxis and built-in research on children's development. Teachers and researchers scrupulously recorded the conduct and growth of the children on a daily or weekly basis, including their food consumption, physical condition, weight and height, social contacts, language development, levels of crying, and uses of play materials. Within this framework, children were understood as growing and developing organisms actively pursuing and seeking experimental body-oriented, thing-related and social activities and were said to gradually progress from one stage to the next, thereby extending experience and control. In her book, Harriet Johnson explicitly mentioned physical enactment and development as a profound «preparation for our complex social life»:

> Whether or not we find that children need positive and corrective procedure, we regard the free and experimental use and control of their bodies as the first desideratum for physical and mental health. Ability to put out energy effectively, to assume and hold any position desired, to poise themselves with

2 Lucy Sprague Mitchell (1878-1967) made her career as a teacher educator emphasizing research-based progressive classroom interaction and community-oriented curriculum design. For more information, see Bank Street, and Antler, 1987.

3 In 1917, the Working Council of the BEE consisted of the following members, in addition to the chair Lucy Sprague Mitchell: Evelyn Dewey, Frederik W. Ellis, Harriet Forbes, Laura B. Garrett, Arthur M. Hulbert, Jean Lee Hunt, Elisabeth Irwin, Eleanor Johnson, Harriet Johnson, Wesley C. Mitchell and Caroline Pratt; John Dewey was one of its honorary members (*Experimental Schools*, 1917, p. 4).

4 More bulletins of the BEE are available as reprints, see Winsor, 1973.

> a minimum of support, to throw, to jump, to skip, to hang, to swing, to balance, to recover balance when disturbed and then to carry on these activities with materials and in association with children is a fair beginning toward complete physical functioning. (Johnson, 1928, p. 6)

On a normative level, the BEE Nursery School, according to Johnson, was indeed concerned to develop «an attitude of readiness to act», which was said to be «characteristic of the creative, dynamic personality» (p. 11). Nevertheless, children had to follow strict temporal routines of eating, sleeping and playing, accompanied by a basic set of rules to prevent fights, attacks and injuries: «In fact, freedom in the sense of lack of direction would not be education» (p. 45). As for play and outdoor activities, children were encouraged to make choices and were helped to orient themselves within a certain range of activities provided according to their developmental stage. The equipment for play included «wagons and kiddy kars, slides, steps and packing boxes, blocks, dolls, crayons and clay» (p. 69) designed to stimulate the handling and manipulation of toys and playthings without necessitating the help or intervention of adults. Johnson's book provided an entire list of indoor and outdoor play material (pp. 75-80) which did not include picture books. At the invitation of his daughter, Mary Calderone, who as a mother of two children supported progressive education, Edward Steichen, one of the best-known fashion and commercial photographers in the 1930s (e.g., Brandow & Ewing, 2007), therefore felt inspired to contribute to «a new venture in the field of books for babies» (Calderone & Steichen, 1991, p. 7). In fact, the book was designed to perfectly match the progressive experimental practice in education as pursued by the BEE Nursery School (e.g., Biber, 1984, p. xiii).

This paper will analyse how the materiality of things and artefacts, sensory vision, progressive education, and science-based concepts of child development were forming a conceptual alliance with photography, which was then perceived as a mode of 'objective' display. Science-based approaches to childhood not only have stressed the objectivity of educational research, but, on a normative level, were also meant to foster advancement, innovation and reform related to educational practices and societal change. Within this experimental framework, observation and seeing became key: (1) they functioned as basic modes of research to support the intended production of 'factual' knowledge about the child and his or her developmental stages, and (2) they were considered central aspects of children's ability to develop intellectually and to contribute to societal transformation. There thus emerged a

strong alliance of photography, science-based developmental psychology, and ideas of societal reform through educating children's ability to observe and act. Photographic techniques such as framing, cropping and enlarging (used in commercial and artistic photography as well as in scientific laboratories) not only helped to exclude contextual information and define what should be seen 'objectively', but also suppressed the normativity of what was perceived as 'factual truth' in progressive approaches to education.

In what follows, the paper (1) introduces the 'philosophy' and photographic structure of *The First Picture Book* itself; (2) relates this to visual and material strategies within the framework of progressive education; and, finally, (3) discusses and analyses the normative impact of what has been put on display. In conclusion, it (4) looks at the interrelationship and interconnectedness of art, science, and consumerism within the domain of education.

THE FIRST PICTURE BOOK: FACTS ON DISPLAY?

In her preface to *The First Picture Book*, in 1930 Mary Steichen Calderone promoted photography as a medium perfectly suited to children's environment and age-related interests. Photography books for young children, in her view, were therefore very much «in line with modern educational theory» and, at the same time, «had the seal of approval of the children in a progressive country nursery school» (Calderone & Steichen, 1991, p. 3). Black-and-white photography, in Calderone's opinion, was much less deceptive as a medium than traditional children's books with their fancy designs such as coloured drawings and other supposedly misleading visual effects. Photography books, by contrast, were expected to stick to the facts and to depict reality, which in turn was said to match the 'objective' observing gaze of children. Accordingly, she saw traditional children's books as endangering young children's development: «Fanciful tales or pictures having for basis nothing the baby knows may lead to a later inability to distinguish between fact and fantasy» (p. 4). In her introductory remarks following Calderone's preface, Harriet M. Johnson, the already mentioned director of the BEE Nursery School, praised photography's capacity to visualize familiar things and to help reinforce images the child has already identified and formed. As such, photography could become a tool of progressive education and developmental psychology.

FIGURES 1-10:
THE FIRST PICTURE BOOK, 1991
© EDWARD STEICHEN, 1930, 1958.

In *The First Picture Book*, all things and artefacts, indeed, seem to appear in their pure presence and form. The book includes twenty-four black-and-white photographs without text. The photographs are supposed to present simple everyday objects, most of them closely connected to the experimental sphere of the BEE's educational initiatives (figs. 1-10): a mug filled with milk and two slices of bread on a plain white plate; a teddy bear and a ball; a clock; a hairbrush and a comb; a toothbrush in a glass next to a piece of soap; a telephone; a coat and a hat; fruit; daisies in a glass vase; and, finally, a number of toys (such as balls, building blocks, a tricycle and a wooden train).

All objects on display appear staged and at the same time isolated from their environment. The individual photographs in *The First Picture Book* are reminiscent of the close-up shots of commercial photography and the precision of traditional still-life paintings, both of which put a set of objects on stage and expose it to the gaze of the viewer in a supposedly appealing way while placing an analytical emphasis on the objects' form and material texture. Edward Steichen's photographs were carefully crafted. Similar to his commercial photography, he used artificial light to avoid distracting shades while stressing the texture and form of the depicted objects. It seems as if the photographs had a presentational character. They were made to attract the eye, provide an exercise to see, observe and recognize forms and a material quality that appealed to children's other senses and called them to action. As such, the photographs also stressed the material and sensual quality of the artefacts: the feel of a metal cup; the colour and taste of milk; the softness of fur or a baby's hairbrush; the smooth surface of balls, pieces of fruit and porcelain dishes; the movement of wheels and balls; the material quality of wooden toys; the handling and feel of things; the sounds of a telephone; the ticking of a clock; the smell of daisies; and, finally, the aesthetic quality of simple objects and things. *The First Picture Book* therefore does much more than try to present mere objectivity: it is a book on how to see, experience, arrange and appreciate the neat simplicity of everyday life in an average middle-class children's environment in the United States. In fact, *The First Picture Book* depicts the objects and artefacts which were at the centre of the material-sensory curriculum of progressive education; it referred to indoor and outdoor activities such as block building, storytelling, washing and hygiene, managing time, putting on clothes, setting lunch tables, and taking care of flowers (e.g., Pratt & Stanton, 1926). Like photography, these activities were aimed at creating forms and patterns of behavior and handling.

ENCOUNTERS OF ART AND SCIENCE: NEW WAYS OF SEEING IN PROGRESSIVE EDUCATION

In 1926, Caroline Pratt and Jessie Stanton published a book recording the everyday experimental praxis and observations at the BEE in the context of progressive education. As indicated by its title, *Before Books* too is a contribution to early childhood education. In their introduction, the authors drew a clear line between traditional education and progressive education in early childhood. In their view, progressive education in early childhood builds on the development of the organism and bodily senses by means of experience. Therefore, education is defined as an art comprising the entire body, its physiological functioning and related intellectual development. Education thus not only included artistic activities like music, rhythmic education and drawing, but also simple everyday practices. Teachers were responsible for arranging and providing an experimental space, and for helping children orient themselves within this space so that they could explore and experience art, play and everyday activities, including trips into the city. As mentioned earlier, the findings and developmental processes were thoroughly observed, described and thereby objectified. Teachers were seen not so much as educators offering specific training in music, the arts and other fields, but as observers, researchers and promoters of an overall organic developmental process:

> The assumption of the old pedagogy that anything, music, drawing, sculpture, dramatics, literature is merely a combination of its elements lies at the bottom of most of our educational difficulties. Art is not produced through an intellectual nor yet a feeling nor to use the old psychological term a willing process, but from the getting together of all these. It seems to spring out of something which analysts call the 'subconscious' and which behaviorists do not mention at all. Straight physiologists may be the first to name this inner process something which all of us will accept. In proof that there is this process, such schools as ours are producing an abundance of corroborative evidence. (Pratt & Stanton, 1926, p. 24f.)

Nevertheless, a main problem of science-based educational research—that is, the visual observation of an inner process—remains unresolved and further increases if the perspective of research is not output—but process-oriented. The answer of experimental education was to put even stronger

emphasis on observation and to record every detail of what could be seen and observed in the classroom. Children were literally *seen* as experimenting entities in an experimental educational setting, observed by educators who acted as researchers and took notes of every single observation they made in the classroom. As such, experimental education produced a tremendous amount of information, which was to corroborate objectivity by means of visual evidence and observation. In addition, the children themselves were seen as observing and experimenting individuals. In her introduction to Lucy Sprague Mitchell's *Here and Now Story Book*, Caroline Pratt referred to children as almost 'natural' if not 'automatic' observers and explorers. Their «method», she writes, «is the method of art and science—the method of experimentation and inquiry. We can almost say that children are born with it, so soon do they begin to show signs of applying it» (Mitchell, 1921, p. ix). An alliance between experimental education and photography as a mode of observation and a new way of seeing and exploring therefore manifested itself almost inevitably.

Photography in this context seems not to have been perceived primarily as an artistic practice, but rather as an optical technology to observe reality, allowing for investigating and detecting forms, including social ones. Progressive concepts of early education and related visions of societal transformation are, therefore, closely connected to scientific strategies of the visualization of knowledge. In his 1947 essay «Schauen, sehen, wissen» (Looking, Seeing, Knowing), Ludwik Fleck (1983) provides an impressive description of how, following the invention of the microscope, the scientific definition of bacterial groups at first oscillated between different possible classifications, shapes and forms, before one scientifically accepted visual image asserted itself and became firmly established, which in turn determined subsequent research. Optical devices—including photography—undoubtedly were key instruments of research within many experimental systems (Rheinberger, 2014), and the images produced were processed into paradigmatic patterns or forms, thereby resulting in different forms of knowledge, be it astronomical, chemical, biological, medical, physiological, psychological or educational knowledge (see Heintz & Huber, 2001; Daston & Galison, 2007; Bredekamp, Schneider, & Dünkel, 2008; Bruhn & Hemken, 2008). Similarly and also aiming at the discovery of patterns, Pratt & Stanton (1926) described the core principle of their new concept of research on early childhood as a mode of «thinking about thinking» and connected this to the fine arts and the sciences:

> All creative artists have always used this method [«thinking about thinking»] presumably but they are just becoming conscious of it and beginning to analyse it and sustain it. What is more interesting still is that science or to speak more explicitly psychology is beginning to support it as against the logical method of thought. The psychologist in discovering patterns produced by organisms has admitted a new way of thinking about thinking. Pattern forms are what artists have been working on since the first one began to work but no one has been willing to give them credit for thinking. (Pratt & Stanton, 1926, p. 4)

«Thinking about thinking», therefore, was based on discovering patterns and forms and subjecting them to further analysis through research, which perfectly matched the functioning of photography and other optical instruments as technical devices within the sciences *and* the arts. In an article on «The Image as Cultural Technology», Bruhn & Dünkel stress that the main impact of images, be it within the sciences or the fine arts, has to do with «the definition and description of *form*» (2008, p. 166; see also Priem, 2015). They explicitly mention that «form» is a «key term for several different scientific methodologies and disciplines» (Bruhn & Dünkel, 2008, p. 166). In their view, form «can imply the structure and evolution of organisms or the significant elements of language (as in *morphology*), and is central for those disciplines that apply comparative and descriptive means to their visible objects (like archaeology and history of art)» (p. 166). The analysis of forms and patterns and related imaging techniques like photography, therefore, is situated at the intersection of art and science. Seen from a historical perspective, the rediscovery of pure, non-ornamental form and related ways of seeing at the beginning of the twentieth century, indeed, seems to have been an overarching trope of design, art, education of taste, consumerism and scientific epistemologies. The aesthetic avant-garde from the 1920s onwards developed a huge interest in fields such as photography, typography, innovative design, and photomontage, all of which aimed at the creation and invention of new forms of presenting and seeing. It was no coincidence that Edward Steichen in 1929 was one of the participants of the circulating international exhibition «Film und Foto» (Film and Photo),[5]

5 Many thanks to Ulrich Hägele for bringing the exhibition «Film und Foto» to my attention and introducing me to the reprint of the original catalogue.

initiated by Alfred Stotz in Stuttgart, which combined and connected artistic experiments, journalism, advertising, commercialism, consumerism and science, and thus attracted a huge public audience.[6]

WHY DOES PHOTOGRAPHY MATTER? NORMATIVE IMPLICATIONS OF FACTS

New ways of seeing and observing were, indeed, a wider issue at the beginning of the twentieth century, especially in the late 1920s. These explorations of visual experiments sought to link visual strategies of the artistic, commercial and scientific sphere. While progressive education did not reflect on commercialism and consumerism, Pratt & Stanton (1926) in *Before Books* also stressed the close experimental relationship of seeing, observing, recording and research as a key element of pedagogy and educational research:

> It is possible for the artist teacher to record what has gone on in his group. Inadvertently one gets his activity and that of the children in terms of motor living [sic!], but his object in recording is to project something for study, something which will help him to check his own and the children's activities which have taken on certain forms. Just in so far as these formulations and in so far as he is experienced in seeing them he learns to record what are significant or typical. (p. 8)

The discovery of significant or typical patterns under conditions of experimentation builds on scientific principles like repetitive observation that is usually said to underpin the objectivity of research. With regard to children and their organisms, developmental patterns imply a certain automatism of growth and progress that can be well defined and interpreted as «motor living» or mechanical evolutionary sequences (see, e.g., Herman, Priem, & Thyssen, 2015) that occur and are formed within a specific environment. In each case, children were exposed to specific indoor and outdoor environments to stimulate their senses and to inspire them to explore, observe and develop. Children were also

6 Other participants included László Moholy-Nagy, El Lissitzky, Sigfried Giedion, Alexander Rodchenko, Edward Weston, Piet Zwart, Imogen Cunningham, Albert Renger-Patzsch, André Kertész, Hannah Höch, Aenne Biermann, Man Ray and Eugène Atget (Hermann, 1929).

taken on trips into the city, and a photograph (fig. 11), printed in the BEE Bulletin in 1917, shows a group of children observing the loading of a truck while being themselves observed through the eye of the camera.

FIGURE 11: ON THE DOCKS
(*EXPERIMENTAL SCHOOLS*, 1917, P. 2)

Like their teacher-researchers, the children were expected to discover a scheme or a pattern they would apply and further develop in their play.

Another image in the same book (fig. 12) shows «building for a purpose». The wooden blocks seem to be arranged to resemble a farm or a stable for animals, whereas the child is involved with some kind of cart, which can be loaded and unloaded. In both cases, the photographs are used to objectify a certain style of thought, that is, of experimental education and research, implying that children orient themselves and develop intellectually and socially «through their observation as well as through former experiencing» (*Experimental Schools*, 1917, pp. 16-17), while being observed by researchers, who undergo very similar processes. As mentioned earlier, *The First Picture Book* was meant to support the curriculum of progressive education and it was, therefore, no coincidence that building blocks, transportation and movement also appeared in its photographs (figs. 13 and 14).

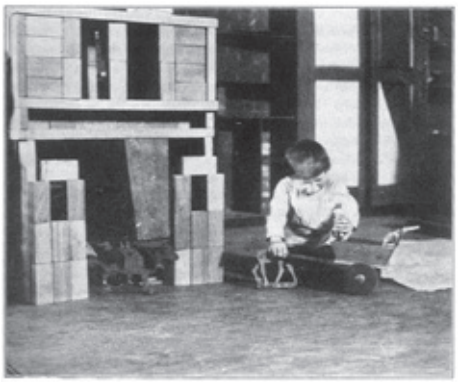
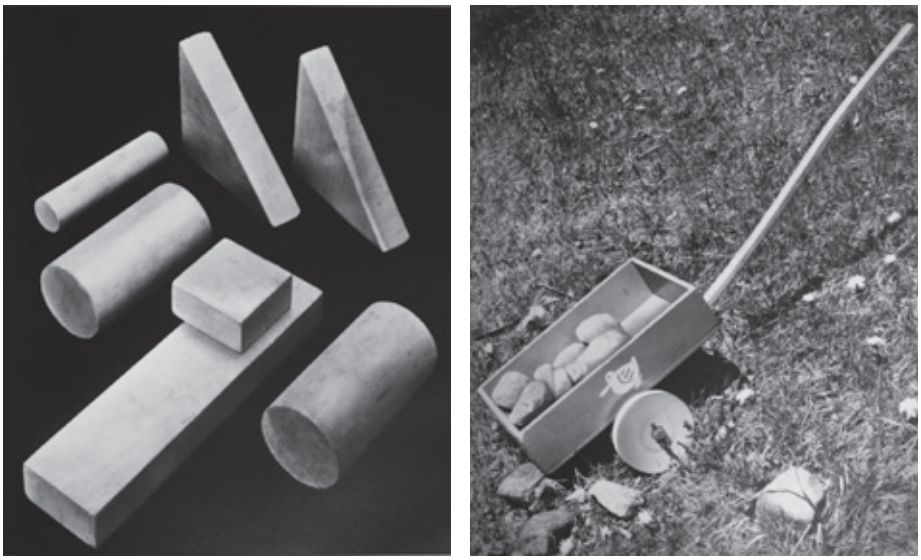


FIGURE 12: BUILDING FOR A PURPOSE
(*EXPERIMENTAL SCHOOLS*, 1917, P. 15)

All in all, *The First Picture Book* simply served as another tool within this experimental space of seeing and observing. It resembled a device for further observation and visual training (and as such could have functioned



FIGURES 13-14: THE FIRST PICTURE BOOK, 1991
© EDWARD STEICHEN, 1930, 1958.

like a scientific atlas) rather than a children's book (Bruhn & Dünkel, 2008). Because of its lack of rich and ornamental decoration—fabulous designs and colourful drawings are indeed absent from the book—, it most probably did not appeal to or inspire children's imagination.[7] With regard to both its make and purpose, *The First Picture Book* was located at the intersection of new visual technologies, science, advertisement and art. At the same time, showing sharply focused and analytically staged facts for babies, it put on display archetypical forms that were designed to train children to observe their environment, to learn to classify their own experiments, and to develop forms and patterns within educational spaces. Furthermore, the book was a circulating object of training and display that could disseminate the educational concepts of the BEE, champion new ways of seeing within the domestic sphere and, at the same time, also reach out to a wider public. As such, *The First Picture Book* became an «evocative» object to observe and see with (e.g., Turkle, 2007), to talk about, to interact with and to structure behavior: in sum, a material-visual agent or player within the social sphere of children and adults.

7 *The First Picture Book* obviously failed to attract a big audience and «was not a big success» (John Updike in Calderone & Steichen, 1991, p. 62).

According to Elizabeth Edwards (2012), the meaning of photographs is affected by «the fluid relationship between a photograph's production, consumption, material forms, ownership, institutionalization, exchange, possession, and social accumulation, in which equal weight is given to content and use value» (p. 223). This also applies to photography books for children. The question remains how the content as well as the practical and educational value of the images interact and relate to each other. How do the content, aesthetical composition, framing and visual techniques of Steichen's photographs intersect or interact within the fields of art, consumerism and science, and how could the book and its photographs become educational agents? How can we describe and determine the relationship of epistemology, design and the social life of things such as children's books (Appandurai, 1986)? And why does photography matter (Fried, 2008) within the framework of progressive education?

The art historian and philosopher Gottfried Boehm (2007a; 2007b; see also Prange, 2005) draws upon deixis to distinguish images from texts as conveyers of knowledge and meaning. Images, in his view, operate with a specific visual repertoire of intentional gestures that prompt and explicitly point to specific action while deliberately excluding other contents or actions. Following Boehm's argument, one can argue that *The First Picture Book* was a result of a careful selection process: the photographs included in the book intentionally pointed to specific ways of seeing, acting and handling, which explicitly excluded other ways of seeing, other actions and other choices that in turn corresponded with other norms or criteria of decision-making.

The normative aspects of the book can be traced aesthetically and socially, also in relationship to consumerism. John Updike, in his epilogue to *The First Picture Book*, describes the objects on display as «items of inexpensive mass manufacture» and as «quite conservative in design» (Calderone & Steichen, 1991, p. 58f.). In addition, he called Steichen's mode of photography «absolute» in its «definition» of artefacts and things, precise, «unironical», strictly selective, and orderly (p. 64f.). «This is a no-nonsense baby's world» he concluded, adding that the photographs presented «flat semiotic realities» (p. 62) and demonstrated the «gravity and power» of children's perception (p. 66). The latter may also have been due to the impact of the materiality and high-end (commercially and artistically oriented) photographic quality of *The First Picture Book*, which certainly served to enhance its status and significance. The scientific rigor of observation and recording and the eminent importance of seeing seem to have invaded the children's world and eliminated fun, enter-

tainment, nonsense, myth and imagination. Indeed, *The First Picture Book* addressed children as fact-oriented, focused, experimenting and observing organisms that would act accordingly and step-by-step develop associated forms and patterns. If we look at *The First Picture Book* from a presentational perspective, children were looking at photographs of aesthetically poor, mass-manufactured everyday objects that nevertheless could achieve functional value through the use of photographic high-end technologies as new models of seeing and observing at the intersection of art, commercialism and science. The gap between the aesthetic quality of the content and the aesthetical and technological production of Steichen's photographs may, indeed, give priority to seeing, the creation of forms, and behavior while putting less emphasis on educating taste.

Unfortunately, only little is known about the educational effects, related oral exchanges and the 'real' social life of the book and its photographs during the 1930s. Nevertheless, it is worth looking at the book's career as a travelling object. Once launched as a picture book presenting facts for babies, *The First Picture Book* was republished in 1991 by the Whitney Museum in New York with an afterword by the American novelist John Updike. Originally situated at the intersection of art, consumerism and science and intended as a tool of science-based progressive education, the book, in its later edition, having travelled through time and space, entirely moved away from the domains of science and education and became for the most part an artistic relic of the past.

CONCLUSION: THE INVENTION OF THE FUTURE AT THE INTERSECTION OF CONSUMERISM, ART, SCIENCE AND EDUCATION

Progressive education was mainly focused on developmental patterns of physiological organisms. Experimenting materials and new ways of observing, seeing and recording within this framework functioned as a kind of «machine for making the future» (Jacob, 1988, p. 13). By adopting experimental models and methods of education along the lines of the BEE, future societies would be built on and by rational, creative, dynamic, effective, autonomous and socially committed individuals, who in turn would be able to act in a cooperative spirit, distinguish between «fact and fantasy» (Calderone & Steichen, 1991, p. 4) and perform with a «readiness to act» (Johnson, 1928, p. 11). Most

publications of the BEE therefore emphasized the high potential of its initiatives to create a new mankind and a new society. This adventure of inventing the future was said to start at the intersection of art and science. Not only were experimenting and observing building on the physiological apparatus of children and adults, but the discovery and invention of forms within the arts were identified with objectification, scientific observation, recording and developmental patterns of human organisms.

The First Picture Book, published in 1930, was part of the BEE's «machine for making» a better future. The period was characterized by the discovery of photographic technologies as hybrid visual and epistemological strategies to experiment with, to train new ways of seeing, and to implement new ways of presenting and observing. When Steichen was working on *The First Picture Book*, he was actively and successfully involved in photographing consumer objects, and the photographs he took and that were intended to depict presumably important facts for babies explicitly refer to his commercial photography. There, like in *The First Picture Book*, objects and things were depicted in serial graphic patterns by stressing their form and material presence. The Bureau of Educational Experiments may not have been fully aware of Steichen's affinity for commercialism and consumerism, domains in which new ways of seeing and acting also were playing a key role. But it was mainly because of this relationship that *The First Picture Book* could function as an object that explicitly corresponded with the curriculum of the BEE, its play materials and their handling. According to Baudrillard (1968), «any object immediately becomes the foundation of a network of habits, the focus of a set of behavioral routines» (p. 7fn). Of course, this also works the other way round, and he adds: «Conversely, there is probably no habit that does not centre on an object. In everyday existence the two are inextricably bound up with each other» (p. 7fn). As such, *The First Picture Book* certainly is a good example of how consumerism, art and science formed alliances within the field of education.

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