

CONSERVATION PHOTOGRAPHY

By

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To my family for encouraging my vision,
and all the dedicated hearts and minds
bringing this movement to life.

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LIST OF ABBREVIATIONS

CI:	Conservation International
FCA:	Florida Cattlemen's Association
ICF:	Images for Conservation Fund
ILCP:	International League of Conservation Photographers
LINC:	Legacy Institute for Nature & Culture
SI/MAB:	Smithsonian Institution Monitoring and Assessment of Biodiversity Programs
TNC:	The Nature Conservancy

Abstract of Thesis Presented to the Graduate School
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Conservation and photography are two words representing distinct fields that when put together take on new meaning. What is conservation photography and how is it evolving into a newly recognized and influential discipline? Conservation photography is simply photography that empowers conservation. Its importance is increasingly recognized within both the scientific and photographic communities as a powerful tool for sustaining the diversity of life on earth. This thesis surveys the history of photography applied to conservation of natural and cultural resources, including insight from social documentary photography and nature photography. Case studies of projects with measurable conservation influence illustrate the foundations of the field and show that conservation photography is actually the oldest form of photography to affect social change. The emergence and function of organizations dedicated to conservation photography, such as the International League of Conservation Photographers, founded in October 2005, also helps define the field. Documenting biological diversity in Gabon, Africa with the Smithsonian Institution provided the author's primary photographic experience, including production of his first book, *The Edge of Africa*. A professional project accompanying this thesis, including this book and a portfolio of the author's conservation photography, is archived in the Allen H. Neuharth Library of the College of Journalism and Communications.

CHAPTER 1 INTRODUCTION

Conservation photography is simply: photography that empowers conservation.

Photography has served this role since the 1860's, although not widely acknowledged. Renewed emphasis on photography-for-conservation has arisen at the beginning of the twenty-first century, primarily in response to the human-caused environmental crisis, recognizing that the current global pattern of ecosystem degradation is not sustainable.

Sustainability refers to, "...human activities conducted in a manner that respects the intrinsic value of the natural world, [and] the role of the natural world in human well-being (Groom et al 2006). Yet the erosion of biological and cultural diversity (the biosphere and ethnosphere) continues to accelerate due to anthropogenic factors such as climate change, resource consumption, pollution, habitat fragmentation, and globalization. Modern humans have caused the rate of species extinction to increase 100 to 1000 times since industrialization (Pimm 1995) and from similar factors half of the earth's 6000 spoken languages will be lost within the next 50 years (Davis 2001). The article *Trends in the state of nature and their implications for human well-being* reported:

...the changes currently underway are for the most part negative, anthropogenic in origin, ominously large and accelerating. The impacts of these changes on human society...for the most part also appear to be negative and substantial (Balmford and Bond 2005).

Conservation photography as a field is emerging to address these trends.

Science teaches the need for conservation, but often falls short in communicating this fact to the public. To achieve sustainability, the general gap between scientific knowledge and public behavior needs to be bridged. Science-based communications provide an ideal tool for constructing that linkage. Within the communications fields, documentary photography, which bears witness to social issues, has proven its ability to generate public awareness and inspire

change. Similarly, nature photography can provide a pervasive vehicle for conservation messages. But unlike social documentary photography, modern nature photography is less commonly used to address issues.

The emerging discipline of conservation photography combines nature photography with the proactive, issue-oriented approach of documentary photography as an agent for sustaining the biosphere and ethnosphere. The central question to this thesis explores: What is conservation photography and how is it evolving into an influential field today?

Building Connections with Photography

In the modern world, where societies are growing increasingly distant from nature and increasingly reliant on media for information on the world around them, photography has a real opportunity to help connect people with their vanishing natural heritage and explore the often overlooked links between human societies and natural ecosystems. The field of conservation photography is emerging at a time when segments of the scientific community are beginning to embrace the power and importance of art for advancing conservation. An article in the February 2007 issue of the scientific journal, *Conservation Biology*, concluded “Promoting conservation through the arts may reach a more diverse audience and reach them more successfully by engaging their hearts as well as minds” (Jacobson et al. 2007). The same article stated: “If we are going to have a new connection to the environment it will have to happen in individual hearts and souls...the artist can help us fall in love with the earth again” (Berensohn 2002).

Photography can be an ideal tool for building this type of connection between people and issues.

Good photographs are easy to recognize and difficult to forget. As such, photography has been a powerful public awareness tool in communicating both social and environmental issues, transcending boundaries of language, culture and time. This point of view is expressed in the

words of Edward Steichen, describing his monumental international documentary photography project, *The Family of Man*.

Over three and a half million people have seen the exhibit; a million copies of the book, *The Family of Man*, have gone all over the world....This is irrefutable proof that photography is a universal language; that it speaks to all people; that people are hungry for that kind of language. They are hungry for pictures that have meaning; a meaning they can understand (Steichen 1958).

The universal language of photography has proliferated since *The Family of Man*. Modern societies are immersed with imagery, including the seemingly boundless influence of advertising and entertainment media. Society is visually inundated with messages about what is good and what is worth attention. Thus if conservation issues stand to compete for space in mainstream consciousness, they need to be carried by the same tool that has made advertising and corporate media messages so contagious – creative photography. Text can no longer command attention on its own. Today, images still provide the best hope for connecting people to issues, just as photographs have been used in the documentary tradition ever since the advent of portable cameras.

Documentary Photography – Bearing Witness

Conservation photography, focused on conservation of biological and cultural diversity, is a modern breed of documentary photography, sharing many of the same principles which can be seen in the foundations of the field. According to Gretchen Garner's book *Disappearing Witness*:

[Documentary photography] is not simple reportage of objective fact or institutional recordkeeping: instead it is issue-driven, focused on a social issue about which the photographer cares strongly (Garner 2003).

The conservation photographer approaches his or her work with a mission to share social realities with his or her audience, not only to create a document, but to create a means to add dimension to society's perceptions. Historian Marianne Fulton writes, "Being there is important,

being an eyewitness is significant, but the crux of the matter is *bearing witness*. To bear witness is to make known or confirm, to give testimony to others” (Fulton 1989). References to documentary photography throughout this paper will assume a pro-active role according to these definitions.

The remainder of this introduction will explore the history of documentary photography as a tool for social change. Then, through case studies and a literature review, the focus will turn to the history of nature photography and conservation.

History of Social Documentary Photography

The ability to expose social issues through photography was born with the advent of portable cameras and magnesium flash at the end of the 19th century. No longer constrained by the heavy cameras in need of tripods and long exposures incapable of stopping motion, photographers were for the first time able to go out and capture real moments from life.

New York police reporter Jacob Riis photographed the slum conditions shared by three quarters of New York City’s population. Through his photographs, published in *Scribner's Magazine* and in his 1890 book, *How the Other Half Lives*, Riis inspired politicians to take action by improving housing, lighting and sanitation, as well as the construction of city parks and playgrounds. This marked the beginning of the “eye of conscience” school of American photography (Gildgoff 2001). A new window into the world had been opened.

From that time forward, documentary photography emerged as a means to expose social concerns, often with significant political influence. Not only were photographers bearing witness, they were affecting change. Lewis Hine, a school teacher trained in sociology, turned his lens toward the abuses of children working in factories. The National Child Labor Committee (NCLC), founded in 1904, hired Hine to photograph working conditions for children throughout the country. The publishing of Hines’s photographs led to the creation and enforcement of new

child labor laws. Hine defined his work as social photography and by the time of his death in 1940, social reform photography had become a widely accepted tradition.

Following the social reform philosophies set forth by Riis and Hine, the Depression era of 1930's brought the field of documentary into its heyday, largely through the photography of the Farm Security Administration and the formation of the Photo League. In 1935, President Franklin D. Roosevelt, as part of his New Deal assistance programs, established the Resettlement Administration (RA), which was absorbed into the Department of Agriculture and became the Farm Security Administration (FSA) in 1937. The new head of the agency, Rexford Tugwell, chose to hire a team of photographers to create a photographic survey of rural areas in the United States as part of the government's pro-active role in improving socio-economic conditions. The FSA staff of thirteen photographers included Dorothea Lange, Walker Evans, Arthur Rothstein, John Vachon and Marion Post Wolcott. In exposing the realities of farm workers to the rest of the country, sociologist and director of photography Roy Stryker said, "We introduced Americans to America (Goldberg & Silberman 1999)." FSA photographers were encouraged to look to socioeconomic research during the Depression in order to find subjects who needed economic empowerment. Motivated to inspire social change with their cameras, the photographers shared a sense of purpose. Regarding Dorothea Lange's famous work, "Miss Lange's real interest is in human beings and her urge to photograph is aroused only when values are concerned" (Garner 2003).

The FSA photographers created a legacy by providing further clarity on the purpose and function of documentary photography. Stryker later wrote about documentary photographers:

Their education should never stop... They should know something about economics, political science, philosophy, and sociology. They have to be able to conduct research, gather and correlate factual information, and think things through. Then they can go out and make pictures than mean something (Bezner 1999).

This philosophy of documentary photography (which could have been written about conservation photography today) was manifest in the pursuits of the Photo League, formed in New York in 1936. Much of the Photo League's initial inspiration came from the combined artistry and social influence of Lewis Hine, "the spiritual leader of documentary photography," as he was called in the league's monthly newsletter, *Photo Notes* (Benzer 1999). FSA photographers Lange, John Vachon and John Rothstein were also active as members, teachers and speakers. Supported entirely by its membership, the Photo League grew to include the most distinguished photographers of the time, such as: Paul Strand, Sid Grossman, Arthur Leipzig, Beaumont Newhall, Arnold Newman, Walter Rosenbloom, Aaron Siskind, W. Eugene Smith, and Ansel Adams (who will be discussed further in the next section for his use of photography for conservation). Henri Cartier-Bresson worked closely with the league as well. Among the league and its supporters was a common belief in the purpose and power of documentary photographs. In *For A League of American Photographers*, its executive board stated:

Photography has tremendous social value. Upon the photographer rests the responsibility and duty of recording a true image of the world as it is today. Moreover, he must not only show us how we live, but indicate the logical development of our lives (Photo League 1938).

The Photo League advanced the value of their craft and its purposes as the only noncommercial photography school in America and its social commitment shined through group projects, such as *Harlem Document* and *Rural America*, collectively photographing and exhibiting areas that needed public attention and reform. The collaborative nature and political function of the Photo League, as it created awareness and action on social issues, foreshadows the philosophies to be applied toward the conservation movement by the International League of Conservation Photographers (ILCP) in 2005 (the ILCP will be discussed in detail in Chapter 3).

The Cold War and fear of communism in America brought socially active organizations such as the Photo League under scrutiny in the 1940's, and from that point forward, sense of purpose in photography became more subtly integrated into the artistic expressions and many photographers began pursuing art for aesthetic purposes independent of issue or cause. Even so, the legacy of documentary photography as a powerful political tool has remained, continuing to affect change on important issues, as many of its tenants were absorbed into the field of photojournalism.

Photojournalism – The Legacy of Documentary Photography

Often called the father of photojournalism, Henri Cartier-Bresson, born in France, began his career in the early 1930's. He used compact Leica rangefinder cameras to capture “decisive moments” on black-and-white film. Cartier-Bresson was a student of Robert Capa, with whom he cofounded Magnum Photos, along with David Seymour, in 1947. Capa's brainchild, Magnum, a cooperative photo agency, began dispatching its photographers around the globe covering conflicts, news events and social issues. The photographs brought the world to the public through the pages of U.S. and European media, including *Life Magazine*, which featured assignments by Cartier-Bresson over a period of three decades. Cartier-Bresson published *The Decisive Moment* in 1952. He was a leader in both the craft and philosophy of photojournalism and became possibly the most referenced and influential photographer of the 20th century.

Cartier-Bresson was concerned as much about the artistry of his photographs as he was about their content and context. While emphasizing visual appeal is central to the hybrid art of photojournalism, this emphasis also represents an era when photography was becoming a quest for beauty, often independent of purpose. Cartier-Bresson's intense focus on art is probably the reason his photographs were the most widely published and exhibited in the twentieth century, although he rarely set out with a primary purpose of social change. The shift toward

photography-as-art in social documentary mirrors the de-emphasis of purpose in nature photography which also became prevalent in the twentieth century.

Cartier-Bresson did occasionally turn his camera towards important social issues and human conflict, particularly early in his career, and he recognized the responsibility of his role in serving as the eyes for society:

As photojournalists we supply information to a world that is overwhelmed with preoccupations and full of people who need the company of images....We pass judgment on what we see, and this involves an enormous responsibility (Bresson in Schonauer 1997).

As the craft of photojournalism flourished through the 1950s, some photographers embraced their responsibility more than others and continued harnessing the power of their craft to tackle social issues with the same sense of purpose seen in the early documentarians.

Consider civil rights photographer, Charles Moore, who documented violent protests between whites and blacks in his native Alabama in the early 1960's. Moore was disgusted by the racial abuses, including fire hoses and dogs being turned against black citizens. He said, "I wanted to show the appalling violence of dogs biting people because of the color of their skin (Gilgoff 2001)." Moore's photographs were published in *Life Magazine*, which at the time was America's leading news source, reaching half the nation. "Many credit Moore's dramatic photos with transforming the national mood and quickening the passage of the Civil Rights Act in 1964 (Kaplan 1998)." Moore had helped transform civil rights from a regional topic to a national issue.

History of Photography and Conservation

In addition to being influential on social issues, photography has also shaped societal views and policies on issues related to the natural environment. The relationship between conservation and photography actually started well before the time of Jacob Riis, Lewis Hine,

Dorothy Lange and Henri Cartier-Bresson; decades before the birth of social documentary. On June, 29, 1864, the US Congress enacted a bill signed by Abraham Lincoln, establishing Yosemite as the nation's first legislated nature preserve, to be managed through the State of California. The support of the Congress was secured, in part, through landscape photographs of Yosemite by pioneering photographer Carleton Watkins, presented to Congress by Senator John Conness (Cahn 1981). Then, five years after Yosemite received federally mandated state protection, photography was again used to build support for protecting Yellowstone, in the Wyoming Territory, helping create the world's first national park. Photographer William Henry Jackson joined the first geological surveys of Yellowstone in 1870 and 1871. The second survey was led by Dr. Ferdinand Vandiveer Hayden, the director of the U.S Geological and Geographical survey of the Territories. Hayden, spearheading the movement for Yellowstone preservation, distributed Jacksons's photographs to Congress and exhibited them in the Capitol rotunda (Cahn 1981). When the Yellowstone bill was introduced to both houses of Congress in December 1871, seeking protection for more than two million acres of wilderness from logging and other exploitations, there was little opposition. On March 1, 1872, president Ulysses Grant signed the Yellowstone Act into law and the world's first national park was born (Schonauer 2007).

Watkins and Jackson were conservation photographers in the truest sense. Working closely with explorers, scientists and politicians, their efforts steered public opinion and resulted in lasting protection of natural heritage. We can see that photography has empowered conservation since the beginning of the environmental movement in America. Yet it has taken more than one hundred thirty years for conservation photography to start gaining recognition as a field.

Through the work of Watkins and Jackson, it appears that conservation photography was actually the first form of effective documentary photography, pre-dating photography's application to social issues by more than twenty years. This advance probably has more to do with technology than anything else, as the cameras of the 1860's and 1870's used larger glass plates as negatives and required long exposure times. Watkins' cameras used eighteen by twenty-two inch glass plates and exposure times as long as ten minutes, not well suited to human subjects outside of a studio setting. But with the advent of portable and instant cameras near 1900, photographers could begin capturing human life as they saw it and documentary photography began its marriage with social issues.

In the twentieth century, conservation photography continued to grow in parallel with the establishment of national parks, embraced by a young Ansel Adams, who was the only member of the Photo League who focused his camera primarily on wilderness and later became the most famous photographer to have worked for conservation. Widely known by the general public for his vivid black and white photographs of western landscapes, Adams is less known for his proactive role in conservation. He worked passionately to promote protection for the places he photographed. Adams worked closely with the Sierra Club, a conservation organization founded in California in 1892 under the leadership of famous wilderness champion John Muir. The Sierra Club became a leading advocate for U.S. National Parks and a pioneering publisher of nature photography to support its conservation campaigns. Adams became the club's leading photographer and a key figure in its history. And as one of the few organizations to use the term "conservation photography" in the twentieth century the Sierra Club later created the Ansel Adams Conservation Photography Award in his memory (see Chapter 3).

In 1936, armed with a portfolio of prints, Adams went to Washington, D.C. on behalf of the Sierra Club to spend three weeks lobbying Congress to establish Kings Canyon National Park. With pressure from logging companies, the bill did not pass, but Adams kept trying. His Kings Canyon photographs were presented to President Franklin D. Roosevelt by Secretary of the Interior Harold Ickes. Congress passed the bill later that year to create King Canyon National Park and Adams' book was cited as for its importance to the campaign (Cahn 1981).

The same time Adams was beginning to influence conservation was also the heyday of social documentary photography. Cartier-Bresson said, "The world is going to pieces and people like Adams and [Edward] Weston are photographing rocks! (Cahn 1981)" Cartier-Bresson clearly did not appreciate the revolutionary role of conservation photography at the time. In a letter to Adams, Weston later wrote, "I agree with you that there is just as much 'social significance in a rock' as in 'a line of unemployed.' All depends on the seeing." Seeing the need for conservation in 1930's was far less common than seeing the more recognizable social inequities following the great depression, and Cartier-Bresson's perspective suggests why conservation photography did not gain the same acceptance as documentary photography during the twentieth century.

In the twenty-first century there is growing recognition that conservation and social issues are interrelated and that sustainable solutions must involve both environmental and cultural dimensions (see Chapter 2). That Cartier-Bresson did not fully appreciate the value of environmental photography was likely more a symptom of the time, when society as a whole placed much more emphasis on growth than the sustainability of ecosystems and cultures. The same was true of the scientific community. Twentieth century biology, not unlike the

broader field of nature photography, was more about exploring nature for *truth* and *beauty* than informing society about sustainable practices.

Since Adams, nature photography proliferated as an art form and industry (although often divorced from conservation purposes). Many of nature photography's masters can certainly be credited with raising environmental awareness through their imagery, but have not done so with the same degree of follow-through as Adams, who was a prototype for conservation photography. Other photographers have shared these characteristics with Adams: 1) conservation remained their primary objective and 2) measurable results were achieved (i.e. land protection or new legislation), although their names and accomplishment have been much less well known.

While Adams was just learning to photograph and hike through the wilderness as a California teen in 1915, a Japanese immigrant, George Masa, was arriving in the mountains of North Carolina. His photography built lasting influence in his new home, including inspiring the creation of Smokey Mountains National Park and mapping the entire North Carolina portion of the Appalachian Trail (Bonesteel 2003).

Masa's studio was based in Ashville, but he spent extended periods photographing in the wilderness of the Smokies. He often worked with author, national park proponent, and close friend, Horace Kephart. Their magazine articles, celebrated the wilderness, and in 1925 they together published a large-format pamphlet titled, "A National Park in the Great Smoky Mountains." The park vision was realized official under President Franklin Roosevelt in 1940 and today the mountains remember their champions: there is a 6,217-foot peek named Mount Kephart and a 5,685-foot peek on the southwestern side named Masa Knob (Ellison 2004).

In 1947, a photographer named Philip Hyde entered Adams' photography program at the California School of Fine Arts and soon became the most influential conservation-oriented

photographer of his generation. Like Adams, Hyde worked closely with the Sierra Club and it was through this partnership that most of his communications campaigns were waged. “Battle books,” as Hyde called them, were their primary weapon for winning public support. Hyde’s photography helped create Dinosaur National park and make the Grand Canyon a symbol of American wilderness, launching the Sierra Club into a national organization (Trimble 2006). Today the North American Nature Photography Association (NANPA) offers an annual environmental photography grant honoring his legacy. “The Philip Hyde grant is named for the pioneering 20th century photographer Philip Hyde, who dedicated his career to using photography for the advancement of conservation” (nanpa.org).

In Australia, Peter Dombrovskis is credited for helping start the national environmental movement by turning his camera toward the wild rivers of Tasmania, where proposed hydroelectric dams threatened to flood valleys, destroy wildlife habitat, and disrupt water flow. Some dams were built in spite of his efforts, but Dombrovskis helped stop the Franklin Dam project, saving a vast expanse of pristine wilderness. *Morning Mist, Rock Island Bend*, his most famous photograph, depicted a section of the Franklin River which would have been flooded, visually spearheading Australia’s 1982 ‘No Dams’ campaign and helping make the Franklin River a household name. The public debate over the fate of the Franklin River gave birth to the environmental movement in Australia (Mittermeier 2005). As a conservationist, Dombrovskis worked closely with The Wilderness Society and later published calendars featuring incisive commentary from pre-eminent environmentalists, as well as his acclaimed 1983 book *Wild Rivers*. In 2003, he was inducted into the International Photography Hall of Fame and Museum. He was the first Australian to receive this honor.

Watkins, Jackson, Adams, Masa, Hyde and Dombrovskis were all nature photographers who used their craft to accomplish a primary objective – protecting the lands and waters depicted in their images. They also set historical precedent because their conservation efforts achieved results, ultimately creating national parks and inspiring new laws. Conservation purpose and achieving measurable influence can be seen as two main characteristics which distinguish “conservation photography” from other forms of nature photography (the differences will be further discussed in Chapter 3). These essential qualities, conservation purpose and results, are embodied by a select group of contemporary photographers.

Contemporary Examples of Conservation Photography

Photographer, Xi Zhinong, for example, has become a leader in the Chinese environmental movement. Zhinong began his conservation career in 1983 as a student at the biological department of Yunnan University, where he assisted Professor Wang Zijiang in the production of a scientific and educational film, *A Paradise for Birds*. Through the mid-1990's, Zhinong was working as a photographer for the Yunnan Forestry Bureau. He went deep into the Baimang Nature Reserve to photograph the Yunnan snub-nosed monkey, a species under first-class state protection. He became the first to photograph the species in the wild (Hart 2007). When Zhinong discovered that the Deqin County government was engaged in illegal logging in an area, threatening to destroy the snub-nosed monkey habitat, he wrote to government leaders in protest. His pleas were shunned and he was fired from his job. Zhinong collaborated with Friends of Nature, China's first nongovernmental environmental-protection organization, and continued working on the story with his wife, Shi Lihong, then a China Daily journalist with family connections to China Central Television. They aired a vivid documentary on national television about the plight of the monkey, leading to cascading media support and student rallies. They then organized an investigative media expedition to the Baimang Nature Reserve, recorded by

renowned journalist Shen Xiaohui. The government finally ordered an end to the illegal logging. This was the first time that conservation organizations, with the help of the media, successfully changed government policy in China, bolstering the growing non-governmental conservation movement (Xiao 2006).

Zhinong has continued working for conservation, including efforts to save the Tibetan antelope. He has recently returned to Yunnan and established Green Plateau, a nongovernmental organization promoting the ecological protection in the Yunnan Province. One of Zhinong's photographs of the Yunnan snub-nosed monkey won the Endangered Species Award from the BBC Wildlife Photographer of the Year competition and in April 22, 2000, he received the Earth Award, the highest award for environmental protection in China (Schmidt 2004).

Another contemporary conservation photographer, Michael "Nick" Nichols, has built a lasting legacy influence. He began as a photographer with the U.S. Army, studied under civil rights photographer Charles Moore, was a nominated member of Magnum Photos from 1983 until 1995, and joined the staff of *National Geographic* in 1996. Nichols' photographs powerfully advocate for endangered wildlife and ecosystems.

I'm very mission oriented. I'm here to help the gorillas. I don't need to be bigger than the work. I don't want you to know my name. I want you to know the image (Nichols 2005). One of the presentations Nichols gives through the National Geographic Speaker's Bureau is entitled, *Giving Voice: Using Photography and Media as Powerful Conservation Tools*. Nichols works closely with conservationists and his photographs often empower their campaigns. He has collaborated with researchers to save tigers in India, Jane Goodall to protect the world's great apes and with Wildlife Conservation Society biologist, Michael Fay to rescue endangered elephants in Zakouma, Chad. Prior to the Zakouma project, Nichols and Fay had worked together in Africa for ten years, culminating in the *Megatransect* – a project where Fay and a

small team walked through the remote heart of Africa. The two-year trek traversed two thousand miles, starting in Congo and emerging on the Atlantic coast of Gabon. Nichols spent months documenting the expedition with the goal of bringing critical awareness to the threatened species and habitats along the way.

The *Megatransect* drew international media attention, became a three-part series in *National Geographic*. With conservation at the end goal, Nichols' photographs provided the team's most powerful weapon. When Fay presented the photographs to Gabon's president, El Hadj Omar Bongo, he decided to create a system of thirteen national parks, the most significant conservation result to have been inspired by photography in recent decades. From the world's first national park in Yellowstone to its newest in Gabon, from Jackson to Nichols, photography empowered substantial conservation.

Helping create new park systems and inspiring national environmental movements are the benchmarks of what is possible through conservation photography, yet there are other photographers making measurable and important contributions at various levels of influence.

Mexico native, Patricio Robles Gil, was honored with the Outstanding Nature Photographer of the Year award by the North American Nature Photography Association in 2006, but his most remarkable accomplishments may result from his dedication when he's not behind the camera. Robles Gil established *Agrupación Sierra Madre* and *Unidos para la Conservación*, two organizations that work to guarantee the permanence of Mexico's biological wealth and promote a conservation culture among the population. His commitment has made him one of Mexico's most influential conservation leaders, responsible for reintroducing pronghorn antelope and bighorn sheep in Caihuila, completing a jaguar survey in the Mayan jungle, and the promotion of the El Carmen-Big Bend Conservation Corridor Initiative, a trans-boundary

conservation area at the Mexican and US borders. As part of his conservation marketing efforts, Robles Gil helped produce more than twenty books featuring international conservation strategy.

Robert Glenn Ketchum is a dedicated and outspoken ambassador of conservation photography whose words carry his mission beyond his photographs. One topic Ketchum explores in his books and public speeches is the history and relationship of photography with the American landscape. He says:

Politics and conservation should consciously be part of our daily dialogues. Photographs live far beyond their initial creation and have repercussive effects: they need to be carefully considered in all of their uses and contexts, so that their impact has positive and protective results. Far too many contemporary photographers dismiss these considerations and responsibilities (Ketchum 1981).

Ketchum's photographic endeavors mirror his written philosophies. He photographed Alaska's Tongass National Forest which was being clear-cut in the late 1980s. He then exhibited photographs of the lush temperate rainforest on Capitol Hill and published a book that was given to every member of Congress, helping push the Tongass Timber Reform Act that President H.W. Bush signed into law in 1990 (Nixon 1994).

The group of contemporary photographers working for conservation is extensive (see Appendix B). Many dedicate years to a single issue, for example: Gary Braasch and global warming, Charlie Ott and Denali, Florian Schultz and the Yellowstone to Yukon corridor, Chris Ranier and the ethnosphere, and Cristina Mittermeier and the indigenous people of Brazil. These and other dedicated photographers continue to create critical awareness for wildlife and cultures at risk of extinction.

Cultural Conservation Photography

Conservation photographers are working to protect not only landscapes and wildlife, but indigenous cultures as well. The diverse cultures of the world comprise the ethnosphere, the cultural web of life. According to anthropologist Wade Davis:

The ethnosphere is the sum total of all thoughts and dreams, myths, ideas, inspirations, and intuitions brought into being by the human imagination since the dawn of consciousness...Every language is an old growth forest of the mind, a watershed of thought, an ecosystem of spiritual possibilities (Davis 2003).

Yet like the biosphere, the ethnosphere is being severely eroded at an unprecedented rate. There are six thousand different languages in the world today, yet less than half of those languages are being taught to children (Davis 2001). That means half the world's languages are effectively dead. Language is the manifestation of culture, comprising diverse worldviews, intimate knowledge of local landscapes, and unique solutions to humanity's problems. This vast cultural diversity which is legacy to hundreds of thousands of years of development is being lost forever. And unless something changes, we stand to lose half of the earth's cultural diversity within the span of a single human lifetime.

As an explorer in residence at the National Geographic Society and through his writing and photography, Davis is a leading proponent for the ethnosphere. He co-directs the Cultural Ethnosphere Program with Ranier, whose life's mission is to put on film both the remaining natural wilderness and indigenous cultures around the globe and to use images to create social change.

Born in Mexico, Cristina Mittermeier was a marine biologist who found her photographic niche by recognizing that natural ecosystems and native cultures often face similar threats and can be protected by similar solutions.

In many of the most remote and inaccessible corners of our planet, indigenous people are still living traditional lifestyles and surviving in great intimacy with nature. In some places, these indigenous nations are the last line of defense between what we call development and our planet's last remaining wilderness (Mittermeier 2007).

Mittermeier now uses her photography as a tool to give voice to the native cultures and ecosystems of Amazonia. She has been working extensively with the Kayapó indigenous nation, a tribe occupying a 30 million acre indigenous reserve in the southern Amazon. The land and

watersheds of the Xingú Valley, on which the Kayapó depend, are being degraded by outside interests. Planned hydroelectric dams threaten to destroy the Xingú River, a major artery of the Amazon. One of the five proposed dams would become the fourth largest ever built and create the largest man-made lake in the world. Thousands of acres of rainforest in the Kayapó territory would be flooded. Other threats include increased pollution by massive soybean plantations and the clearance of large areas of forest near the river's tributaries.

Mittermeier has been campaigning for the Kayapó and their land for since 1991. Her photographs have been published in newspapers, magazines and books worldwide, and her slideshows have helped raise the one million dollars annually that D.C-based environmental non-profit Conservation International (CI) spends on Kayapó conservation. The politically savvy Kayapó appreciate the power of photography and welcome and recruit the attention of outside media.

Anthropologist Dr. Terence Turner, who has been working with the Kayapó since the 1960's, has provided them with photography, video and audio equipment to document their own lives. From recording the promises made by Brazilian government officials to placing photographs and videos in the mainstream press, photography has empowered their representation. Because the vast majority of Amazonia is controlled by indigenous nations like the Kayapó, Mittermeier sees great hope in repeating their example to protect diverse cultures, wildlife and ecosystems.

Concerned Photography and Political Scrutiny

Whether focusing on people or the environment, photography with purpose carries risks because its political nature can be seen as subversive to government and corporate power. Consider the demise of the Photo League after it came under scrutiny by the United States Government, stifling the League's programs and the field of documentary photography as a

whole. As the United States was entering the Cold War with Russia, politicians became increasingly wary of communist and overtly socialist agendas. The Un-American Activities Committee (HUAC) of the House, and the Senate committee, headed by the infamous Senator Joe McCarthy, led a series of investigations seeking to uncover Communists and their allies in America. The Attorney General published a list of organizations and individuals in question. With no real evidence, and to the surprise of the members, the Photo League appeared on the blacklist in 1947, and two years later an informant testified that it was a Communist front. These claims were never substantiated. The league struggled through the next two years, but the Communist label, once applied in that era, was too difficult to shed. Membership dropped, media coverage subsided, and in 1951 the League disbanded. In the political climate of the Cold War, organizing around social issues had become much more difficult than before.

New cultural and ideological conditions in the cold war years forced traditional presumptions concerning social documentary to be inexorably altered, regarded as suspect and even dangerous. This parallel between the decline of documentary photography and the rise of political oppression is no mere coincidence – a redbaiting, blacklisting climate forced many artists to retreat into safer, more private realms (Benzer 1999).

As seen with the demise of the Photo League, exposing social injustice is not always welcome. Today, conservation-oriented photographers can face similar resistance. An active conservation photographer who was suppressed by political scrutiny is Subhankar Banerjee. A physicist and computer scientist and a native of India, Banerjee worked at the Los Alamos National Laboratory and Boeing Corporation, before setting out to spend 2 years above the Arctic Circle, photographing the fragile ecosystems of the Arctic National Wildlife Refuge (ANWR). An amateur photographer who had never published his work, Banerjee was soon center stage of international media attention and political controversy. His polar exploration led to his first book, *Seasons of Life and Land: Arctic National Wildlife Refuge*, published by Mountain Press, and a prominent exhibition was planned at the Smithsonian Museum of Natural

History in Washington, D.C. The spotlight turned to Banerjee on March 19, 2003, when California Senator Barbara Boxer introduced an amendment to prevent oil drilling in ANWR. During her arguments, she held up a copy of Banerjee's book before the assembly and urged the senator to read it and to visit the upcoming Smithsonian exhibit before dismissing the region as a "flat white nothingness" as it had been described by U.S. Secretary of the Interior Gale Norton (Olson 2003). Following the Senate debate, the Smithsonian exhibits department informed Banerjee that there was pressure to cancel the show, supposedly by ranks of Congress who supported oil drilling in ANWR. The exhibition was ultimately hung, but interpretive captions were removed and photographs were moved to an obscure basement hallway, rather than the prestigious gallery, Hall 10, where it was originally planned to show.

Political manipulation may have become a blessing for Banerjee and ANWR due to the media attention the project received, including an article in *Vanity Fair* (by Sischy 2003), a multi-part series published in the *Washington Post* (by Trescott 2003) and thorough coverage on *National Public Radio* (by Welna 2003). But the ability of corporate interests to suppress the publication of photographs echoes the undercurrents at the demise of the Photo League and forewarns of the obstacles that may face the International League of Conservation Photographer as it seeks public and political influence.

Literature Review

Articles about the Emerging Field of Conservation Photography

Photography has been widely applied for nature and culture conservation since the nineteenth century, but the concept of "conservation photography" as a discipline has not been well established. In 2007, searching publications, online databases, and journals for "conservation photography" yielded few returns. Of these references, the majority discussed

archival conservation of photographs and artifacts in museums and libraries, not “conservation photography” of living nature as described by this thesis.

Conservation Photography: Art, Ethics and Action (2005) by Cristina Mittermeier appeared in the *International Journal of Wilderness*. This was the first-published academic paper calling for the establishment of the field. After the death of Hyde, one of the field’s pioneers, *The New York Times* (2006) published an article titled: *Philip J. Hyde, 84, Conservation Photographer* – one of the few times the phrase has been printed in mainstream media with its current context. *The Psychology of Photographic Imagery in Communicating Conservation* (2006) by psychology professor, Olin Eugene Myers Jr., Ph.D., was written for the ILCP about the influence of photographic imagery on public attitudes toward conservation.

Popular Photography and Imaging (2007) presented conservation photography to its mainstream readership in *Before They’re Gone: Three photographers dedicated to preserving disappearing America*. The introduction read:

Whenever we take a picture, we capture a moment that will never exist in exactly the same way again. Every photo is an elegy of sorts, an immediate memorial to an instant that's gone forever. But for these three photographers, this idea has meaning on a greater and more pressing level. Whether due to development, climate change, or public policy, many facets of America are going faster than we can capture them with our cameras. Carlton Ward, Jr., Ron Niebrugge, and Annie Griffiths Belt are committed to photographing imperiled nature and culture, and they're fighting to make sure that their photography won't be the only thing that remains (Grossman 2007).

The featured photography, including the work of the author, was presented as a pro-active tool for conservation, not just passive documentation. Belt, a contributing photographer to *National Geographic Magazine*, said, “We really do have the power to influence with our images.

Especially when photographers can work together, we really are a force.”

The largest advance for the term “conservation photography” in mainstream media came from a special issue of *American Photo Magazine*, titled *Assignment Earth: How Photography Can Help Save the Planet* (2007). The introduction read:

A new school of “conservation photography” is helping to reshape the way we think about nature...dedicated disciples of this movement, all members of the International League of Conservation Photographers, show us what is really at stake in the modern environmental battle (Schonauer 2007).

This issue presented “conservation photography” to its readers for the first time, including sixteen articles profiling the field’s leading photographers and organizations. *The Photos that Made Us Conservationists* interviewed ten public figures about the images that most influenced their views of nature. Barbara Baxter, U.S. Senator and Chairman, Senate Committee on Environment and Public Works, said:

I have a poster with this Ansel Adams picture hanging in my office in Washington, D.C. It reminds me that our natural environment surpasses anything that human-kind could ever construct. We have a moral obligation to protect it for our children and grandchildren.

With this issue of *American Photo*, the conservation-oriented nature photography received mainstream recognition under its new name – “conservation photography”.

Seminal Nature Photography Books

The progression of nature photography as a field, and its key contributors, can be seen through the books published during the past century. Several increased environmental awareness while others focused on the aesthetics of nature with less emphasis on conservation issues.

In 1932, Edward Weston and contemporaries, including Adams and others, co-founded the *f/64 Group*, sharing a philosophy of realist photography with maximum sharpness and “depth of field” achieved using high aperture numbers like f/64. In addition to Western landscapes, Weston is best known for his photographs of human figures as well as highly detailed portraits of plants, vegetables and seashells. Although realistic, his selective concentration on singular forms

advanced a style of nature photography where subjects became art independent of place or context. According to Curator Jennifer Watts, “Weston was about finding the essence in natural form; finding the beauty in the common place” (NPR 2003). In 1937, Weston received the first-ever Guggenheim fellowship for photography, allowing him to spend a year focusing on the landscapes of Death Valley and the West, which he published in *California and the West* (1940). In his quest for photographic beauty, Weston did not share the conservation impulse or political ambition of Adams, though his photographs were published in a special edition of Walt Whitman’s *Leaves of Grass* (1941).

Twenty years later, color photographs of New England woodlands by Eliot Porter were published with writings from Henry David Thoreau in the book *In Wildness Is the Preservation of the World* (1962). Porter had studied bacteriology and biochemistry at Harvard University, where he received his medical degree and worked as a researcher and professor for ten years, before changing careers to become a full-time photographer. Porter had a passion for photographing birds. Because black and white images could not show the color of their plumage, he became a pioneer in the dye transfer process. His color portraits of birds received a Guggenheim Foundation Fellowship to exhibit at both Museum of Modern Art and American Museum of Natural History. Throughout his career, Porter published landscapes and details of nature in vivid color. In addition to fostering appreciation for eastern landscapes, his revolutionary work established color nature photography as an accepted art form.

Utilizing refined mountaineering skills and lightweight cameras, Galen Rowell introduced a new, interactive way of seeing landscapes in *Mountain Light: In Search of the Dynamic Landscape* (1986). Rowell demonstrated and taught a brand of participatory wilderness photography, where no longer just an observer with a camera, the photographer became an active

participant in the photograph. Interacting with the landscape, and often running or climbing intensely to capture moments such as the unexpected convergence of light and form in fast-changing mountain conditions, Rowell introduced a photojournalistic approach to nature photography. In *Galen Rowell's Vision: The Art of Adventure Photography* (1993), the photographer expands on his philosophies of active visual exploration. He writes, "The art becomes the adventure, and vice versa." Rowell also discusses the importance of emotional connection within the photographer as a key element to successful images.

Jim Brandenburg also approached nature as a photojournalist, seeking to capture decisive moments. He worked for ten years as newspaper photographer and then twenty-five years producing stories for *National Geographic*. His first book, *White Wolf* (1990), provided window into the lives of seldom-seen arctic wolves living on Ellesmere Island, Canada, followed by *Brother Wolf* (1993) which portrayed the elusive timber wolves of Northern Minnesota with unprecedented intimacy. Brandenburg's photographs helped promote appreciation and protection for wolves – species which had been vilified during the first part of the twentieth century. As a photojournalist, Brandenburg's conservation ethic remained subtly integrated into his work, evident in his choice of stories rather than a stated objective of his publications. The mission was clear, however, in 1999 when he founded the Brandenburg Prairie Foundation to promote, preserve and expand the native prairie of southwest Minnesota.

Rowell and Brandenburg practiced a genre of high-impact, color nature photography which became a recognized style published in magazines such as *National Geographic*. Beyond the beauty, the varied perspectives and captured moments brought pages to life. Franz Lanting, good friend to Rowell and partner in the *Living Planet* project, became one of nature photography's masters, as seen in *Life: A Journey Through Time* (2006), which portrayed the

story of a fragile and evolving planet. With similar style and acclaim to Lanting, Art Wolfe published 42 nature photography books, including *The Living Wild* (2000), which featured essays from prominent naturalists Jane Goodall, George Schaller, and William Conway. Although not produced in association with any particular environmental organization, *The Living Wild* advocated for conservation through its content. In the book's opening essay, William Conway stated, "Wildlife conservation is destined to be one of the greatest challenges of the twenty-first century." Whenever possible, Wolfe approached each species from a wide-angle perspective to emphasize the relationship to surrounding habitat – a new innovation compared to traditional telephoto wildlife photography.

From beneath the surface of the water, underwater photographer David Doubilet exposed a previously unseen world, publishing 70 articles in *National Geographic* starting in 1971. His book *Water Light Time* (1999) includes photographs from thirty different oceans and seas shot over three decades of exploration, portraying the underwater world with unprecedented storytelling artistry that fostered new appreciation for that realm.

Like Doubilet, Yann Arthus-Bertrand brought new perspective to nature through *The Earth from Above* (2003). Working with UNESCO (the environmental division of the United Nations), to assemble a global portfolio of 200 aerial photographs, Arthus-Bertrand provided a powerful vision for understanding the ecology of the planet and the undeniable impact of human development. He writes, "The earth is art. The photographer is only a witness." Yet he served as a witness in the most pro-active sense, hosting outdoor exhibitions in major cities throughout the world and positioning the photographs in the context of environmental stewardship, for which he received the most prestigious award in France, Legion D'honneur.

The Tongass: Alaska's Vanishing Rainforest (1994) by Robert Glenn Ketchum stands as a benchmark of photography influencing conservation. In the tradition of Adams and Hyde, Ketchum set out to save the American landscape with his camera, namely the Tongass National Forests of Alaska. He used his book to lobby Congress and helped build support for the Tongass Timber Reform Act which ultimately protected a million acres of old growth forest (Nixon 1994). Ketchum was later acknowledged by *Audubon Magazine* as one of the 100 people who shaped the environmental movement of the twentieth century (Seideman 1998).

National Geographic staff photographer, Michael Nichols, dedicated most of his career to raising awareness for nature in the rainforests of Central Africa. *Brutal Kinship* (1999) was published with Jane Goodall to bring attention to the plight of chimpanzees. *The Last Place on Earth* (2005) presented the wildlife and habitat of the Congo in two-volume boxed set, including an eleven by fifteen inch, 344 page portfolio of 250 photographs and separate volume of text from Michael Fay's journals during their epic *Megatransect* expedition. Publishing costs were subsidized by the National Geographic Society, Wildlife Conservation Society and private sponsors, so that sales from this powerful anthology of Nichols's Central Africa photographs could directly fund conservation efforts in the region.

Cultural Conservation Books

Several key books have focused on conservation of indigenous cultures within their environmental contexts. *Where Masks Still Dance: New Guinea* (1996), by ethnographic photographer Chris Rainier, documented diverse and seldom seen tribes of New Guinea and their cultural traditions over a ten year time period. Content from the book was later exhibited at the United Nations reproduced as an online report from Time Magazine.

Tibetan Portrait: The power of Compassion (1996), by Phil Borges with text by His Holiness the Fourteenth Dalai Lama, portrayed the non-violent resilience and strength of the

Tibetan people and their culture, despite invasion and oppression by Chinese communists. The Dali Lama advocated:

We Tibetans have an equal right to maintain our own distinctive culture as long as we do not harm others. Materially we are backward, but in spiritual matters – in terms of development of the mind – we are quite rich.

Borges' *Enduring Spirit* (1998) presented a collection of portraits of native peoples from around the world, advocating for conservation of global cultural diversity. The introduction quoted a study by Ken Hale of Massachusetts Institute of Technology, estimating that 3,000 of the 6,000 languages that exist in the world are fated to die because they are no longer being spoken by children. In the spirit of cultural preservation, the book was published with Amnesty International to commemorate the 50th anniversary of the Universal Declaration on Human Rights. The photographs celebrated cultural diversity through the beauty and dignity of native faces with strong connections to their environmental contexts.

Based on twenty five years of research exploration, *Light at the Edge of the World* (2001) by cultural anthropologist and *National Geographic* Explorer-in-Residence Wade Davis, shed light on native cultures from around the world. Davis' expert writing and evocative photography provided one of the most insightful and comprehensive views of the ethnosphere ever published, challenging readers to appreciate and preserve indigenous knowledge living in cultures still connected to the land and their pasts.

Faces of Africa (2004) by Carol Beckwith and Angela Fischer was another powerful collaboration of art and science. Beckwith, a fine artist by training, and Fischer, a social scientist, joined forces to document African culture through writing and photography. They worked together for 25 years in 36 African countries, producing 8 previous books. *Faces of Africa* culminated as an anthology of their careers, showcasing the most comprehensive single

collection of African cultural photographs, including ceremonies, rituals and portraits from 150 tribes, to have been published in book format.

Books Produced by Conservation Organizations

Ansel Adams' *Sierra Nevada: The John Muir Trail* (1938) celebrated the Sierra Nevada Mountains, Kings Canyon and the surrounding sequoia forests. In addition to being Adams' first major book, *Sierra Nevada* was designed as a political tool to raise awareness for the fragile landscapes it depicted. The book was championed by U.S. Secretary of the Interior Harold Ickes, gifted to President Franklin D. Roosevelt, and is cited for helping inspire the creation of Kings Canyon National Park (Cahn 1981). In doing so, this pioneering project also helped define a genre of environmental advocacy books based on nature photography.

The success of Adams' photography for conservation led to a new exhibition project, initiated by the Sierra Club and National Park Service in 1954 and culminating in a new book: *This is the American Earth* (1960). The collaborative project relied on Adams' landscape images, but also included photographs from Edward Weston, Williams Garnett, and Elliot Porter, as well as from social documentarians Cartier-Bresson and Margaret Burke-White. "The result was a sweeping panorama of human and natural scenes with both text and photographs inspiring appreciation of the values underlying democracy and freedom (Cahn 1981)." The exhibition opened in Yosemite in 1955 and then, under the direction of the Smithsonian Institution, travelled for seven years throughout the United States and abroad.

The Sierra Club's subsequent books became effective weapons in the ongoing battle to protect the landscapes and wildlife of the western United States. *This is a Dinosaur* by Philip Hyde (1955) continued the advocacy tradition, building profile for a landscape that became protected as Dinosaur National Monument. David Brower, the outspoken executive director of the Sierra Club from 1952 to 1969, commissioned Hyde to continue creating books to serve as

cornerstones to Sierra Club's environmental campaigns. Hyde and the Sierra Club published more than a dozen books together, including *Time and the River Flowing: Grand Canyon* (1964), which turned the canyon into a national symbol of imperiled wilderness and helped save the Colorado River. Tom Turner, senior editor with the environmental law firm Earth Justice, described the book as quoted in Hydes's *New York Times* obituary:

It was published explicitly to stop the federal government from allowing dams to be built in the Grand Canyon, mostly for power generation and a little for irrigation. The text was hard-hitting and it succeeded. No one had done books like that before, and they had more impact than they would today (Turner in Brozan 2006).

The Sierra Club's "battle book" approach was resurrected for the international arena with the publication of *Megadiversity* (1997) – the first in a series of four books on the earth's biological diversity by Washington, D.C. based Conservation International, working in collaboration with *Agrupacion Sierra Madre* in Mexico and with support from CEMEX Corporation. Subsequent titles included *Hotspots* (1999), *Wilderness* (2002), and *Hotspots Revisited* (2005). Each book contained nearly 600 pages, measured twelve by fourteen inches, and weighed twelve pounds. These books brought a new dimension to the coffee-table genre. According to Conservation International's President, Russell Mittermeier, they were too big to fit on most book shelves and as a result often reside on the coffee tables and desks of world leaders, including heads of state. The series was richly illustrated by dozens of the world's leading nature photographers. The collaboration toward international conservation awareness under the leadership of conservation scientists helped lay the philosophical foundation on which the International League of Conservation Photographers (ILCP) would later be built. Science set the agenda and the photographers came together to help make the case.

Following its creation in October 2005, the ILCP became a formal partner in producing the second version of the Conservation International and Sierra Madre series, along with the

Wildlife Conservation Society, the WILD Foundation, and the World Conservation Union. Titles include *Transboundary Conservation: A New Vision for Protected Areas* (2005), *The Human Footprint: Challenges for Wilderness and Biodiversity* (2006) and *A Climate for Life* (2007).

These titles relied on the world's leading photographers of nature and native cultures, with photo credits including: Yann Artus-Bertrand, Jim Brandenburg, Carr Clifton, Jack Dykinga, Peter Essick, Patricio Robles Gil, Chris Johns, Robert Glenn Ketchum, Frans Lanting, Steve McCurry, Michael Melford, Michael Nichols, Pete Oxford, Tui de Roy, Joel Sartore, Anup Shah, Florian Shultz, George Steinmetz, Maria Stenzel, and Art Wolf.

In similar philosophy to the Conservation International series, *Living Planet: Preserving Edens of the Earth* (1999) was produced by the World Wildlife Fund to call attention to globally endangered landscapes and wildlife. The project called upon Franz Lanting, Galen Rowell and David Doubilet, all leading contributors to *National Geographic*.

The Influence of *National Geographic*

It is not just coincidence that many of the seminal books in nature photography were produced by photographers who were also frequent contributors to *National Geographic*. Since the beginning of the twentieth century, the National Geographic Society has produced the preeminent magazine for bringing world attention to conservation issues. The society was founded in 1888 “for the increase and diffusion of geographic knowledge” and used photography as a tool since the beginning. By 1908, photographs occupied half or more of the space in their monthly magazine, which published its first color photographs in 1910. *National Geographic* developed as the primary source of natural-color photographs from the landscapes and cultures of the world and the Society soon became the world's largest non-profit scientific and education institution. Magazine stories fostered appreciation for cultural and natural resources from the start, and the Society officially adopted conservation into its mission later in the twentieth

century. Many of the major stories related to conservation were shown to the world through photography in *National Geographic*, at times paired with writing by scientists on the forefront of exploration.

My Life Among Wild Chimpanzees (1963), written by Jane Goodall and photographed by Baron Hugo van Lawick, introduced the world to humanity's closest living relative. The 36-page article included 36 color photographs depicting never-before seen natural curiosity and social interactions in a natural setting.

In *Life with the King of Beasts* (1969), biologist George Schaller used writing and photography to share insights from his groundbreaking three-year study of lions in Serengeti National Park, Tanzania. The research found, for example, that lions serve an integral role in the ecosystem by keeping populations of hoofed animals in balance. Publishing those findings with photographs in *National Geographic* helped share that new information with the world, and like Goodall's story about chimpanzees, helped establish a format for science-based natural history journalism centered on a charismatic species.

Making Friends with Mountain Gorillas (1970) by Dian Fossey and photographer Robert M. Campbell, followed suit. Fossey, like Goodall, spent years gaining the trust of a group of apes so she could study their behavior in the wild. Then through her writing and Campbell's photography, *National Geographic* changed the way people viewed Gorillas. Fossey reported on the gentle nature of gorillas, a species she showed to have been, "one of the most maligned animals in the world." The article made clear that the largest living primates were rather vulnerable and at great risk of extinction without habitat protection.

Humpbacks: The Gentle Whales (1979), by marine biologist Sylvia Earle and

photographer Al Giddings, provided new insight into the beautiful cetaceans whose populations were declining.

The article made the point that the “humpbacks” had suffered from over hunting and the ungraceful connotations of their name. The text reminded that 40 ton whales could perform back flips and fill the oceans with song. The photographs confirmed their grace.

Sharks: Magnificent and Misunderstood (1981), written by biologist Eugenie Clark with photography by David Doubilet, dedicated 48 pages and 39 photographs to telling the real story about sharks – species that had been vilified by sailors’ myths and the fictitious movie *Jaws* (1975). The photography celebrated the incredible diversity and behaviors of the important ocean fauna that were not always menacing and in fact needed our protection. Doubilet used his underwater photography again to promote conservation in *Plight of the Bluefin Tuna* (1982).

In addition to setting the standard for raising awareness of charismatic and threatened species such as gorillas and sharks, *National Geographic* has also taken the lead on broader conservation issues. *A Place for Parks in the New South Africa* (1996) by National Geographic Photographer Chris Johns and writer Douglas Chadwick brought to life the bold and visionary choices for conservation in an economically depressed and war-ravaged nation. Johns’ photographs showed the promise of a bright future for wildlife and native cultures alike.

As a special edition millennium supplement, *Biodiversity: The Fragile Web* (1999), the entire issue was dedicated to the diversity of life on earth and the extinction crisis. The introduction to one 82 page section read:

Species too numerous to count are disappearing too quickly to record. From Central America to Asia, five articles take you to the front lines of the fight to save Earth’s biological treasures.

The group of stories contained 52 photographs by Franz Lanting. The richly illustrated section addressed topics including: *The Variety of Life*, *The Sixth Extinction*, *Restoring Madagascar*, and

In Search of Solutions. In the same issue, *Forest Elephants* by photographer Michael Nichols and biologist Michael Fay revealed the nature of these seldom-seen and endangered creatures of the Congo forests.

Nichols and Fay teamed up again in a three part series which helped create 13 new national parks in Gabon. *Megatransect: Across 1,200 Miles of Untamed Africa on Foot* (2000), *The Green Abyss: Megatransect Two* (2001), and *Megatransect Three: End of the Line* (2002) chronicled the nearly two-year walk by Fay and team. Designed with National Geographic communicators and the Wildlife Conservation Society scientists to build critical awareness, the highly visible *Megatransect* project helped create 13 new national parks in Gabon and became one of the most successful conservation campaigns in history.

National Geographic has also remained a strong voice for cultural diversity. *Vanishing Cultures* (1999), written by Wade Davis and photographed by Maria Stenzel, turned attention toward the human dimensions of conservation.

The introduction read: Indigenous peoples have become the equivalent of endangered species. Now many battle to save the things that define them; their lifeway, their language, and their land.

Stenzel's photographs exposed readers to diverse cultural realities across several continents. One common theme arose: with degradation of natural habitat or lost connections to historic landscapes, native cultures face the same fate of extinction as any animal with no home.

Web-Based Documentaries

With the expansion of broadband access in the twenty-first century, the internet has become a growing venue for documentary journalism, providing a unique platform for non-linear productions that combine photography, text, audio, video, and animated graphics. FusionSpark Media (fusionsparkmedia.com) has specialized in applying these communications tools to conservation story-telling. They produced *One World Journeys: Where People and the Planet*

Connect (oneworldjourneys.com), including conservation projects such as: *Mercury Rising: Bearing Witness to Climate Change*, *Salmon: Spirit of the Land and Sea*, *Chimpanzees: Messengers from the Forest*, and *Cougar: Spirit of the Americas*. FusionSpark also produced *Water's Journey: Everglades* (theevergladesstory.org) and *Florida's Springs: Protecting Nature's Gems* (floridasprings.org), both sponsored by the Florida Department of Environmental Protection (DEP) to educate students and the public about the value of protecting the state's water resources. To help advance the distinct art of web documentaries, Russell Sparkman, Executive Producer with FusionSpark Media, founded the International Web Documentary Association (iDocumentary.com).

Franz Lanting's *Life: A Journey Through Time* (lifethroughtime.com) expanded the content of the book and traveling exhibition into an interactive, multimedia web production, complete with photography, music, animated text and informational graphics.

Such story telling earned the *Los Angeles Times* the Pulitzer Prize for Explanatory Reporting in 2007 for *Altered Oceans: A Five-Part Series on the Crisis in the Seas* (2006), written by Kenneth Weiss with photography by Rick Loomis. The documentary presented a comprehensive investigation of ocean conservation issues, including habitat loss, toxins, red tides, litter and chemical alteration, along with their implications for the planet.

Born from the vision of renowned Harvard biologist, E.O. Wilson, the *Encyclopedia of Life* (eol.org) is hosted by the Smithsonian Institution's National Museum of Natural History. It was being developed in 2007 as "an ecosystem of websites that makes all key information about life on Earth accessible to anyone, everywhere in the world." The unprecedented, collaborative educational project relies on photography to "safeguard the richest spectrum of biodiversity."

CHAPTER 2 FOUNDATIONS FOR A NEW DISCIPLINE

Blending Disciplines: Ecology, Sociology and Art

There exists a strong tradition between documentary photography and the social sciences. Documentary photography has long been a central tool to the social sciences, giving birth to the hybrid fields of visual social science and visual anthropology, where photography is included as a research tool. There is less tradition, however, between photography and the ecological sciences. While the contributions of photography to ecological issues have been significant, the interdisciplinary role between the fields has remained less developed. As conservation photography emerges as a field, like visual social sciences in the past, it is blending disciplines; converging art and science from a broad base of inquiry.

Let us first consider the interdisciplinary nature of documentary photography, a long-established tool for building public consciousness as portrayed in the words of Psychiatrist Robert Cole:

Documentary work is a journey, and a little more, too, a passage across boundaries (disciplines, occupational constraints, definitions, conventions all too influentially closed for traffic), a passage that can become a quest, even a pilgrimage, a movement toward the sacred truth enshrined not only on tablets of stone, but in the living heart of those whom we can hear, see, and get to understand. Thereby we hope to be confirmed in our own humanity – the creature on this earth whose very nature is to make just that kind of connection with others during the brief stay we are permitted here (Coles 1997).

Documentary photographers, through their own journey for discovery and truth, develop a personal vision which becomes a connection between social realities and the eyes of society.

Conservation photography is much the same; it is documentary photography applied to conservation issues. Documentary photography already incorporates many of the social science disciplines: sociology, anthropology, psychology, journalism and political science. Conservation photography adds ecology, geography and conservation biology to the list.

The ecological sciences (i.e. marine ecology, wetlands ecology, tropical ecology, conservation biology) are by their nature interdisciplinary, exploring the connections in the natural world and uniting biological fields which were previously treated more separately. Furthermore, the spheres of the ecological and social sciences are beginning to overlap. Biologist E.O. Wilson calls this tendency *Consilience* – the unity of knowledge (Wilson 1998). There is certainly consilience through the lens of conservation, as the plights of the biosphere and ethnosphere call out for a unity of ecological and social concern. As seen in Mittermeier’s work with the Kayapó indigenous nation, the issues that threaten an ecosystem are often the same issues that threaten the survival of the cultures which live there. The conservation goals for culture and environment become one.

It should not be surprising, then, that we see strong parallels in environmental and social concern. Both ecologists and sociologists have become critical of global consumerism, which places immediate gain before the long-term health of ecosystems and human populations. The list of concerns is extensive. Consider, for example: globalization, exploitation of developing nations, inequitable distribution of resources, polluted drinking water, degradation of coastal ecosystems and fisheries, desertification, and sea-level rise. All of these issues are eroding both the biosphere and ethnosphere. They are all rooted in short-sighted exploitation and they can all be solved or mitigated through conservation. Conservation unifies biological and social concern and the biological and social sciences.

Conservation also blends science with art. Art and science are often treated as mutually exclusive fields, an idea which is propagated in their respected practices. It is not uncommon for scientists to avoid connotations with art to maintain credibility with peers. But segments of the scientific community are warming up to association with art.

Many scientists fight the urge to be artful, and manage to be conventional in their mode of presentation. Some may come to see, however, that there is more than one way to let others participate vicariously in the processes of data gathering and reasoning which lead the scientist to results. They may realize that ostentatiously labeling an idea 'hypothesis' does not make it a better idea, and that unconventional modes of presentation which use the resources typically associated with art may be well suited to the purposes of science (Becker 1981).

Good documentary photography, like science, grows from understanding gained by large amounts of time invested in the project or problem, and there are indeed a growing number of conservation biologists who embrace the art of photography as an important tool in their quest to protect biological diversity. In conservation photography, art becomes a vehicle for science. Photographs capture the attention of the public and decision-makers and share a science-based message.

The Missing Link: Role of Conservation Photography

Connectivity is the first principal of ecology as well as the underlying philosophy to conservation photography. All life is interconnected, yet there is growing disconnection in the world today, imposing barriers to sustainability of natural systems and indigenous cultures, as well as global economies. Just as natural landscapes are fragmented to an unprecedented degree, numerous disconnects persist in human behaviors as we relate to our natural environment, including:

- Growing distance between modern [urban] society and the natural world
- Gaps between scientific knowledge and public understanding
- Separation between science-based advice and public policy
- Disjoining of cultural traditions and modern life
- Distancing of natural truths from our collective consciousness

These trends of disconnection (Ward 2005) are eroding the ecological fabric of our planet and demand our immediate attention. The most direct remedy is reconnection; rebuilding and maintaining the connections that lead toward sustainable balance. According to Larry Seltzer,

president of The Conservation Fund, if the citizens of tomorrow “don’t have a connection to the land and an appreciation for natural, historic and cultural resources, then they certainly will not protect them when they have to make tough choices on budget and policy (Lerner 2007).”

In the modern world, photographic communications provide the best tools for constructing and maintaining the connections needed to make sustainable decisions. Through photographic communications, society can be reconnected with the natural world, scientific knowledge can connect to public understanding, science-based advice can connect to public policy, cultural traditions can connect to modern life, and natural truths can connect to collective consciousness. Striving to build these connections, science provides the road map, and photographic communication serve as the most effective vehicle. Powerful imagery opens a direct window into social consciousness and is a proven catalyst for change. Such communication efforts can also provide a synergistic effect, inspiring organizations and individuals to work together toward common goals.

Why are there so many photographers drawn to photograph nature? The idea of *biophilia* provides insight as presented by Harvard biologist Ed Wilson; that people have an instinctive yearning to be close to nature. “To an extent still undervalued in philosophy and religion, our existence depends on this propensity [biophilia], our spirit is woven from it, hope rises on its currents (Wilson 1984).” *Biophilia* makes sense, considering that from a background of tens of thousands of years of human history only for the past century have we been living in an industrial and urban era. People come from nature and are part of Nature (although our material culture tells us otherwise). No wonder why urban people are drawn to nature for their recreation, mainstream nature photography being a prime example.

This emotional attraction to nature is a real asset for promoting conservation. As Wilson writes in the concluding chapter of *Biophilia*, “The goal is to join emotion with the rational analysis of emotion in order to create a deeper and more enduring conservation ethic (Wilson 1984).” Through education if we can develop a conservation ethic in the vast population of nature photographers currently without it, then we will have aligned with tremendous potential for public influence. If most nature photographers went out into the world informed about conservation issues and with a purpose of sharing those issues with the people around them, photography would become an incredible link between society and nature.

Today, an artist’s perspective of the natural world has greater value than ever before because man has removed himself so far from nature that an artist’s work is often the only thing that keeps the observer in contact with it (Ketchum 1981).

Ketchum realized the value of photography to reconnect people to nature in 1981. James Balog revisits photography’s role in conservation in his 2007 essay, *How Photography Can Help Save the Planet*:

Photography can help us remember and reclaim our identities as part of the natural world... [It is] an antidote to the disorientation of our time; it replaces fragmentation with focus, forgetting with memory, indifference with affection. These are the impulses shaping a new breed of activist photography oriented to the conservation of the natural and human environment (Balog 2007).

Both Balog and Ketchum stated the need to reconnect to the natural world and believed that the power of photography could enable that connection.

Refocusing Nature Photography

In the early twenty-first century, recognizing the potential for photography to serve an influential role for conservation led to a general sense of frustration with nature photography that did not focus on issues. Many saw a need for reform, to establish new priorities that would allow photography to better fulfill its potential for advancing conservation. In early 2005 (prior to her

founding of the ILCP), I sent the following questions to Cristina Mittermeier, Senior Director of Visual Resources, Conservation International.

Perspective on Conservation and Photography: An Interview with Cristina Mittermeier

Have you always considered yourself a conservationist? If not, what led you to become one?

I have often asked myself about the origins of this "environmental ethic" and have asked others like Jane Goodall and Sylvia Earle about it. We all agree that it comes from early childhood experiences that influence the way we appreciate and empathize with nature. For me, the epiphany came while traveling as an observer in a Mexican shrimp trawler on my last year in college. When the nets were dumped on deck and I realized that most of the catch consisted of accompanying fauna (including a very dead sea turtle) I remember being horrified into rethinking the goals of my career as a fisheries expert.

At this stage in your career what is more important to you, the photography or the conservation implications of the work?

The conservation implications without a doubt. Sometimes I mourn the loss of time not spent photographing and I envy others (like yourself) for the time you spend out there. However, I understand that the task for me now is to legitimize conservation photography in such a way that when I am able to go out in the field for extended periods of time, my work will have meaning in a larger conservation context.

Who would you consider the best examples of other photographers using mission-driven photojournalism to promote conservation?

Lately I have had long conversations with other photographers about the kinds of attributes that make a "conservation photographer" and I have come to the conclusion that even under the broadest of definitions, many of the great photographers of our times fail to make the requirements to fit into this category. Thinking of the creation of an award, I have come up with three simple criteria to be met in order to be considered a conservation photographer: 1) The mastery of the technical aspects of the craft; 2) a proven record of conservation actions on the ground; 3) the creation and use of images for the specific purpose of conservation.

Try to think of some of the best photographers you know, and very few have actually gone out of their way for a conservation cause. There are those however, like Patricio Robles Gil, who do more than take pictures; he actually takes his images to the international public opinion court and spends a lot of his time lobbying ranchers, raising money for conservation projects, talking to scientists, promoting the involvement of corporations and governments. Very few others go to these great lengths. Most are competent only in categories 1 and 3. Many are all devout conservationists but are not willing to take the time to truly get involved in any one issue.

There are several however, who qualify in all: Tim Laman and his work with orangutans, Karl Amman and his work in Central Africa, Xi Zhinong in the Tibetan Plateau, Subankhar Banerjee in ANWR.

What percent of nature photographers (amateur and professional) would you consider to be conservation photographers?

I am going to say that probably one-third is willing to let their images be used for conservation (I am thinking of all the grass-roots organizations that rely on amateurs). However, less than 10% are true conservation photographers.

I know you agree that solid visual communications should be a key ingredient to any successful conservation campaign. What is your vision for the ideal role of photography in the future field of conservation?

My intention is to gain enough recognition of this fact and educate conservation organizations and donors about the importance of budgeting for the use of existing images and the creation of new ones. The most important outcome of the conservation photography symposium in Alaska will be the creation of a Global Visual Communications Strategy for Conservation (and a budget to go with it).

Mittermeier's answers confirm that the majority of nature photographers would not qualify as conservation photographers, even if they consider themselves to be conservationists. But her suggestion that only ten percent of nature photographers would qualify is both a source of alarm and of hope. Unfortunately, it appears that most nature photographers are pursuing art from nature as their end goal, while a conservation photographer would argue that the art should not be the end, but rather a means toward a greater goal of achieving conservation. Conservation photographers should seek pictures with the potential to make a difference and then put those pictures to use, either personally or by placing them in the hands of organizations that can use the pictures to affect change.

The hope that lies in the current state of nature photography is the potential for a ten-fold increase in the number of photographers addressing conservation. Nature photographers value the natural world and are drawn to it for their art. A conservation ethic could come naturally.

This disconnection between attraction to nature and taking action to protect nature may seem strange from the perspective of a working conservationist, but a conservation ethic is not innate; it is something that evolves through education and experience. There are interesting

parallels which can be drawn between the current state of nature photography and the general state of the biological sciences in the 1980's.

Prior to 1980, many of the biological sciences were driven by a purely academic quest to explore and understand. But more recently there had been a broad shift toward applying science to growing problems and conservation biology was born. "Conservation Biology is a multi-disciplinary science that has developed in response to the crisis confronting biological diversity today (Soulé 1985 in Primack 1995)." Substitute "photography" for "biology" and "art" for "science" in this twenty-year-old definition and we have a definition accurate for conservation photography today. Conservation Photography is a multi-disciplinary art that has developed in response to the crisis confronting biological diversity today.

Before the 1980s, biologists were connected to nature (like nature photographers today), but had not purposefully addressed conservation in their work. But since then, the biological sciences swiftly responded to growing concerns for the sustainability of the biosphere and conservation biology was established as a primary field. Likewise, the field of nature photography could be in the early stages of a similar evolution. Nature photographers, already connected to nature through their craft, will embrace the need to confront similar issues of habitat loss, extinctions, and sustainability of human societies, and conservation photography will be firmly established, with its roots in the late nineteenth century and its recognition as a field in the early twenty-first.

Survey: Conservation Photography versus Nature Photography

The following questions were sent to well-known conservation-oriented photographers in October 2007. Selected responses are included as Appendix D.:

1. What is the difference between conservation photography and nature photography?
2. Do you see conservation photography as a new field?
3. What is the role for conservation photography in the coming decades?

Each of the fourteen photographers replied that Conservation Photography (CP) was indeed different from Nature Photography (NP). Several suggested that CP is a subset of NP. Most said that NP focuses on beauty and CP, although often beautiful, focuses primarily on conservation issues. According to Sartore, “The nature photograph shows a butterfly on a pretty flower. The conservation photograph shows the same thing, but with a bulldozer coming at it in the background.” Regarding CP, he said, “The bottom line is that these are pictures that go to work. They allow the reader a chance to understand what’s happening out in the world, even the ugly stuff.” Among the other photographers, there was consensus that sense of purpose and application were the main differences between CP and NP.

Most photographers also agreed that CP was a new field. Only a few, such as Ketchum and Nicklin did not. Ketchum said it “a personal belief and commitment,” and Nicklin said it was “a way to pay back.” Nicklin also said, “It’s not what you do, but what you do with it, using NP to further conservation issues.” And Ketchum said that CP is NP “directed in an advocate/protective way on behalf of a specific issue.” Regarding the future of CP, both Nicklin and Ketchum expressed hope that NP would be better applied to conservation. Although they did not claim CP to be a new field, their view of the purpose and function of the discipline and future needs was concurrent with the other responses.

The majority responded with conviction that CP was a new field. Bransilver said “Most certainly.” Jones said, “Most definitely.” Sartore said “Absolutely.” Ziegler said “Surely is.” Gulick said “Yes, finally.” Those surveyed knew the long history of NP’s influence on conservation, yet they still saw the named field of CP as new.

Balog offered perspective into the group’s enthusiasm for CP’s emergence, primarily the critical timing of the conservation movement:

In the techno-consumerist-industrial age of today, where the human race is brutalizing nature at an ever-faster pace, Conservation Photography emerges as a focused force with an intensity much greater than anything that photography mustered in decades or centuries past. We must use these tools as eloquently as we can or else we can simply congratulate ourselves on living through the extinction of nature. There is no room for uncertainty, no room for cynicism, no room for doubt or else those who follow us on this planet will damn us for our weakness (Balog).

The sense of urgency shared by Balog is the driving force behind the emergence of CP as a field.

Concerned nature photographers are organizing themselves to help prevent the extinction of nature. Sartore said:

I hope it moves the masses to care. For example, most folks don't know that we're going to lose at least half of all amphibian species within the next ten years... There are more conservation subjects than there are photographers at this point, however, and growing. We need to be sure that the power of the photograph is used in as many ways as possible to drive human understanding of the issues that plague species and habitats. There's no time to lose.

Nichols echoed:

No more time for images that do not fight for that which has no voice. No doubt our kind of image making is going to be the next big thing, and frankly it simply has to be this way. The world is on the brink and I guess we will document the whole thing.

Nichols also suggested that the urgency shared among photographers was timed with increased environmental awareness in the First World. He gave the example of Al Gore winning the 2007 Pulitzer Peace Prize for his documentary film on global warming, *An Inconvenient Truth*, and said that photographers who might have otherwise concentrated on social issues or war are turning to conservation.

CHAPTER 3 ESTABLISHING THE FIELD

The International League Of Conservation Photographers (ILCP)

In October 2005, the first-ever symposium on “conservation photography” convened in Anchorage, Alaska, marking a pivotal point in the development of the field. More than forty photographers gathered from across the world. Most had been working for conservation in some form for much of their careers, yet in a matter of a few days they gave themselves a new identity as “conservation photographers.” The symposium was conceived by Cristina Mittermeier, Senior Director of Visual Resources at Conservation International and organized in association with the 8th World Wilderness Congress.

The opening speech to Congress was given by Ian Player, the South African conservationist who founded the *Wilderness Leadership School*, the *Wild Foundation*, and the first world wilderness congress in 1977. One of the world’s leading ambassador for wilderness, Player’s words at the start of the 2005 Congress captured the essence of the global conservation movement and its current needs:

The abandonment of ethically and spiritually based relationship with nature by our western ancestors was one of the greatest and perilous transformations of the western mind... Today nearly all of modern man’s ills spring from this abandonment and this is why wilderness has become so important because it reconnects us to that ancient world...

Marie-louise Von Franz, a great depth psychologist, said: “Western civilization is in danger of building a wall of rationality in its society, which feeling cannot penetrate. Everything has to be rational and emotion is frowned upon. This makes the poets critically important to our cause. Wilfred Owen, a First World War poet, said that all a poet can do is to warn, and that is why true poets must be truthful. Poets warn us and they inspire us...”

This is our task in the 21st century. We need something that will stir our psychic depths and touch the images of the soul. It has to surpass creeds and instantly be recognized. We must learn a new language to convey the feelings of beauty, hope, inspiration and sacredness for humanity and all other life. We need to remember the first principle of ecology: that “everything is connected to everything else”. And the wilderness experience is the spiritual spark that ignites the understanding (Player 2007).

Player's words were heard by several hundred people in the audience: scientists, land managers, government employees, lawmakers, politicians, Alaskan Indians, students, interested public, and a handful of photographers seeking to better position their craft as a tool for conservation. Player was speaking broadly about the conservation movement and the path of humanity, yet his words could have been written as a charge directly to the photographers.

Photography can help break down the wall of rationality and provide the poetry to warn and inspire. Photography has the power to “touch the images of the soul” and to become that new language “to convey the feelings of beauty, hope, inspiration and sacredness for humanity and all other life.” Photography can provide connection to the wilderness experience, remind us that we are all connected, and provide the “spiritual spark that ignites understanding.” As Player described general conservation needs for 21st century, he was essentially describing the role of conservation photography.

Many of the world's most accomplished conservation-oriented photographers, editors and scientists spent four days discussing the role and focus of the new organization and the field. In addition to photographers such as David Doubilet, Art Wolf, and Joel Sartore, to name a few, the group was also joined by marine biologist Sylvia Earle, President of Conservation International Russell Mittermeier, and legendary field ecologist George Schaller. In his address to the group, Schaller said, “photographers have done more for conservation than scientists and writers combined.” Whether or not this bold statement is entirely true, Schaller at least gave testimony that conservation photography is an essential part of the broader effort.

On the last day of the symposium the photographers and editors divided into working groups to create the new resolutions for conservation photography that would make the efforts official in the record of the World Wilderness Congress. *Resolution 24 – Recognition of*

International League of Conservation Photographers (ILCP) and Resolution 27 – Working Relationship between Scientists and Photographers are included as Appendix A.

The Conservation Photography symposium in Anchorage punctuated the emergence of the field presently taking shape. Since its establishment in 2005, the ILCP has grown in membership and accomplishments. There are more than forty member photographers and representing fifteen countries, as well as thirty-six affiliate members including leading magazine editors, agency representatives, authors and producers (see Appendix B). The ILCP board of advisors includes distinguished conservationist scientists such as George Schaller and Jane Goodall.

With its direction being charted by leaders of both the photographic and scientific communities, the ILCP is accomplishing the dual mission of improving the willingness and ability of photographers to focus on conservation issues, and the willingness and ability of the conservation and research organizations to incorporate the use of professional photography in their programs. The ILCP is advancing the field of conservation photography through its leadership and core values, which include: an outstanding commitment to conservation, the highest ethical standards in the practice and business of photography, mastery in the fine art of photography, and leadership to achieve change. Establishing the values, objectives, and organizational structure of the ILCP has been major advance for the new field.

One unique ILCP program is the *Rapid Assessment Visual Expedition (RAVE)*. It is modeled after scientific expeditions called Rapid Ecological Assessments (REA), which sends a team, often including botanists, ornithologists, herpetologists, mammalogists, ichthyologists, and other specialists, to assess the ecology of a region. These methods are commonly employed by *Smithsonian, Conservation International* and *The Nature Conservancy* and other research

organizations. The REA concept was reinvented for photography to give rapid exposure to an area needing attention. The first RAVE occurred in April, 2007, in Mexico's El Triunfo Biosphere Reserve with the purpose of documenting one of the hemisphere's last remaining cloud forests. The expedition was led by Patricio Robles Gil and included Jack Dykinga, Florian Schultz, Fulvio Eccardi, and Tom Mangleson. All of the photographers volunteered their time the expedition was supported by the *National Geographic Expeditions Council* and *Conservation International*. The resulting collection of photographs is the most powerful ever made for the region, providing the foundation of a diverse communications strategy which is being deployed to help ensure El Triunfo's conservation (fundoeltriunfo.org.uk). Based on the initial success of the RAVE program, the ILCP will deploy teams to other regions needing protection.

The Current State of Conservation Photography

In addition to the ILCP, there are several other organizations currently advancing the field of conservation photography.

ARKive, based in London, is global initiative which assembles films, photographs and audio recordings of the world's species into one centralized digital library. ARKive's virtual conservation effort involves finding, sorting, cataloguing and copying the key audio-visual records of the world's animals, plants and fungi, and building them into comprehensive multi-media digital profiles. ARKive's record of the world's biodiversity complements other species information datasets, making a key resource available for scientists, conservationists, educators and the general public.

The premise for ARKive is that photography and films are an emotive, powerful and effective means of building environmental awareness, showing what a species looks like and why it is special. (ARKive.org)

Blue Earth Alliance emphasizes that “the link between compelling documentary photography and our collective motivation to change attitudes, behavior, even policies – is strong” (Blueearth.org). Based in Seattle and founded by photographers Phil Borges and Natalie Fobes, Blue Earth Alliance supports “photography that makes a difference” by providing its tax-exempt, non-profit fundraising status to selected documentary projects. Through this approach, Blue Earth Alliance has helped raise almost a million dollars for issues often overlooked by traditional media, such as the Arctic conservation, global warming, urban sprawl in Los Angeles, racism faced by farmers, disappearing traditions of New England Fishermen, and the role of grandmothers in AIDS-ravaged Africa. Blue Earth conservation photography projects are featured in books such as *The Living Wild* by Art Wolfe, *Arctic National Wildlife Refuge* by Subhankar Banerjee, and *Life on Earth: A Journey Through Time* by Frans Lanting.

The Conservation through Photography Alliance is an initiative by Conservation International (CI) with funding from the BG Group, an international provider of natural gas. Embracing photography as a strategic conservation solution CI says, “This partnership will allow [people] to see why it is so important that we protect our planet’s biodiversity. Nothing does more to inspire people to protect and conserve like a vivid photo image (R. Mittermeier 2006).” The alliance will train field conservationists in photography, enhance coverage of undocumented places and species, build a library of conservation photography, and disseminate conservation messages through international photo exhibits, in partnership with the ILCP.

The Global Justice Ecology Project (GJEP) combines environmental advocacy with social change photography through its Grassroots Social Change Photography program. GJEP’s photography documents indigenous communities that are both suffering from and resisting economic, environmental and social injustices. The photography is deployed through the

internet, mainstream media, and a travelling exhibition which GJEP calls “guerilla” because it can be displayed in remote and low-income communities which would normally be overlooked by exhibits, yet where the social and environmental injustice themes are often most relevant. GJEP is co-directed by photographer Orin Langelle and is based in Vermont. “It has been our experience that images are critical to reach beyond words to give people the ability to see and decide for themselves what the issues are and what is at stake (Langelle 2004).”

The Images for Conservation Fund (ICF), founded by John Martin in Texas, proclaims “Photography is the most powerful conservation tool on the planet (imagesforconservation.org).” Recognizing that ninety-six percent of Texas and ninety percent of the Western Hemisphere is privately owned, ICF focuses its programs primarily on conservation of private land, using photography tournaments as educational and economic incentives to encourage private landowners to restore, preserve and enhance wildlife habitat. The ICF Pro Tour of Nature Photography pairs twenty professional photographers with twenty private land owners in a given region to compete in a month-long competition. Each year the winning photographs are exhibited and published in a book. ICF intends to expand their model to other states and to establish a new Private Lands Nature Photo Tourism Industry, giving landowners profitable incentive to preserve natural wildlife habitats.

The Legacy Institute for Nature and Culture (LINC) seeks to raise awareness for natural environments and cultural legacies, educate about important connections between human societies and natural ecosystems, and promote conservation and stewardship of natural heritage (www.linc.us). LINC will offer the world’s first Conservation Photography Fellowship in 2008. The \$25,000 award will empower a professional photographer to focus on an important conservation issue in Florida each year. There will also be a \$5,000 student scholarship. Other

programs include improving coverage of Florida conservation in the mainstream media through *MediaLINC* and raising awareness for specific issues needing visibility through collaborative communications campaigns. LINC was founded by the author in 2004 (see Appendix C).

The Environmental Committee of North American Nature Photography Association offers the NANPA Phillip Hyde Grant each year. Honoring the legacy of Hyde, who dedicated his career to advancing conservation, the \$5,000 award helps a photographer complete an environmental project. Past recipients include Gary Braasch and global warming, C.C. Lockwood and the swamps of Louisiana, and Florian Schultz and the Yellowstone to Yukon corridor.

Photovoice blends a grassroots approach to photography and social action. It provides cameras to people with least access to those who make decisions affecting their lives. From the villages of rural China to the homeless shelter of Ann Arbor, Michigan, people have used the program to amplify their visions and experience. Photovoice has three goals. It enables people to record and reflect their community's strengths and problems. It promotes dialogue about important issues through group discussion and photographs. Finally, it engages policymakers. Photovoice founder, Caroline C. Wang explains, "What experts think is important may not match what people at the grassroots think is important (photovoive.org)." In Yunnan, China, The Nature Conservancy adapted the Photovoice methodology to promote a participatory approach to environmental health, including creating and protecting a system of national parks.

The Sierra Club's Ansel Adams Award for Conservation Photography seeks to honor photographers who have used their talents in conservation efforts. This award has been given to both amateur and professional photographers, including Clyde Butcher, Franz Lanting, Robert Glen Ketchum and Galen Rowell.

Conservation photography courses. In addition to the emergence of organizations dedicated to conservation photography, there are new university courses that have been created to study the topic.

- *Conservation Photography* – a graduate seminar offered by conservation psychiatrist Gene Myers at Western Washington University’s Huxley College of the Environment in spring 2006. The course focused on the philosophy and application of photography in conservation.
- *Nature and Conservation Photography* was taught by Dr. Gary A. Klee in the San Jose State University Environmental Studies Department. The curriculum included instruction in photographic technique, student participation in conservation photography projects, and study of photographers such as Ansel Adams and Clyde Butcher.

Balancing Journalism and Advocacy

Because conservation photography proclaims a purpose, there are some journalists and scholars who would consider this an inappropriate bias. This thesis suggests that a conservation photographer should foremost be a conservationist. But some people may disagree, suggesting that a conservation photographer should be foremost a journalist with the intention of reporting both sides fairly. The difference of opinion is based on seeing conservation as a bias. But the author’s position is that conservation is actually not a bias, and there is no reason a conservation photographer should not be able to produce balanced journalism. To test this notion, questions about conservation photography and advocacy were sent to a few leading editors and photographers. Joel Sartore, a photographer who has covered major conservation stories for *National Geographic* said:

Some 20 years ago, my journalism school ingrained 'objectivity' into me. But over time, I've come to realize that the best thing I can do with my work is to try and change the world for the better. The whole question is, indeed, something to ponder. Not sure I have the answers, other than for both of us to try and do what we believe to be right and fair.

Kathy Moran, the natural history editor at *National Geographic* responded from a different perspective:

Advocacy journalism is a slippery slope - can you present all sides fairly if the reporter/photographer announces a bias upfront? A journalist, like a scientist, must report fairly, with transparency, regardless of personal bias. You can be an environmental reporter. In fact, there is a society of environmental journalists, much like what we are trying to establish with the ILCP. That said, you cannot wear your environmental reporter and environmental advocate hats at the same time, same place. Advocacy/opinion belongs on the Op-Ed page.

There do not seem to be any universal definitions for what degree of advocacy is allowable and semantics clearly serve a role in determining what is appropriate and what is not. Advocacy journalism carries connotations of inappropriate bias and would likely find a place in the newsletter of the Sierra Club but not in the pages of *National Geographic*. But at the same time the National Geographic Society is probably the world's leading advocate of conservation. Their magazine reports on conservation issues with fair and balanced journalism and employs many conservation photographers to produce its stories. *National Geographic* does not produce advocacy stories, but the stories end up functioning as advocacy for whatever topic is being covered. Regardless of the nuances of language, there seems to be fundamental truth in Moran's observation that "a journalist, like a scientist, must report fairly, with transparency, regardless of personal bias." Fairness and transparency are the bases for maintaining integrity and credibility with readers.

There is no reason to pass negative judgment on a conservation photographer whose motivation is to try and change the world for the better, and who is guided by doing what is right and fair. While there are people today who believe that the wildlife and native cultures of this planet do not deserve to be protected, recognizing that humans are destroying the biosphere and ethnosphere is not a matter of opinion; it is science-based fact. It is also a fact that life on earth as we know it is not sustainable unless we mitigate our destruction of the biosphere. Conservation photography is the form of journalism that addresses this story.

Science provides an example for how photography can approach conservation stories with integrity . There are thousands of Ph.D. level scientists working under the title of “conservation biologist” in research institutions and conservation biology departments throughout the world. The main difference between a conservation biologist and another biologist is that the conservation biologist selects research projects based on questions that will address the global loss of biological diversity. The work of these conservation biologists is published in the most distinguished peer-reviewed science journals, and few people question their ability to conduct sound science with transparent and unbiased results. The same should be true for conservation photographers. The difference between a conservation photographer and a general nature photographer is that the conservation photographer selects projects that will address the global loss of biological and cultural diversity. Just as a conservation biologist must conduct sound and transparent science, a conservation photographer must conduct fair and balanced journalism. From this position, honest, transparent, and balanced journalism should be the conservation photographer’s version of the scientific method, helping avoid accusations of biased advocacy.

Conclusion

Photography is strong tool, a propaganda device, and a weapon for the defense of the environment... and therefore for the fostering of a healthy human race and even very likely for its survival. When used to its best advantage, dramatically, with uncompromising sharpness, it is a most powerful means for demonstrating the need for protecting and preserving the biota. This is because photographs wield a great force of conviction. Photographs are believed more than words; thus they can be used persuasively to show people who have never taken the trouble to look what is there (Porter in Rohrbach et al 2001).

In the 1960s, Eliot Porter eloquently described photography “as a weapon for the defense of the environment.” To harness this power, factions of the photographic and scientific communities have come together to establish a newly named field – conservation photography – as a tactical solution to help mitigate the destruction of the biosphere.

By studying the history of documentary photography and case studies of nature photography advancing conservation, we can draw conclusions for what makes conservation photography successful. In the cases where photography has created the most measurable impact for conservation, the photographer has most often worked in partnership with a research or conservation organization. William Henry Jackson worked with the USGS to help create Yellowstone National Park. Ansel Adams and Phillip Hyde worked with the Sierra Club to create Kings Canyon and Dinosaur National Parks. Nick Nichols worked with the National Geographic Society and Wildlife Conservation Society to create the national park system in Gabon. If a photographer is committed to conservation, he or she should not approach the issue alone. There is great synergy to be gained by working with conservation and research organizations. Adams, for example, served on the Sierra Club board for 37 years. These organizations need compelling photography to help them advance their programs, and photography can provide access to mainstream media outlets that organizations may not otherwise have. In addition, researchers and conservationists on the front lines will often improve a photographer's access to the conservation story; their expertise can help guide the photography's relevance to conservation needs, and their political engagement can help apply the photography to the conservation agenda.

New organizations such as the ILCP are helping empower photographers to focus on sustainability issues and are setting new applied standards for the field of nature photography. Such organizations will help align the field of photography with global conservation priorities, at times connecting the scientific and conservation communities with available journalists for collaborative projects. As ILCP continues to develop its programs, it will seek to pull the field of nature photography in a more applied direction.

Conservation photography provides a general charge to nature photographers: recognize that you can be the eyes for society at large and choose projects accordingly. Throughout the world, there are issues that deserve attention. Yet many nature photographers are continually drawn to commonly exploited subjects over and over again. These photographic exploits can be more harmful than helpful, according to co-founder of Blue Earth Alliance, Natalie Fobes:

Anyone who reads popular photography magazines knows when and where to go to photograph bears, whales, eagles, puffins, and every other kind of photographic creature. Some photographers, pros and amateurs alike, believe in getting the picture no matter the costs. Nature is their Disneyland; all they need to do is pay the price. It is a dangerous concept (Fobes 2004).

Alternately, photographers can choose to look beyond the postcard shot and document an animal's behavior, as well as the context for its conservation. Rather than just take, the resulting images can give back to nature by advancing public understanding and appreciation.

Photographers will always be drawn to a famous subject such as the Grand Canyon. But going to the same public vista to make the same photograph that has been made thousands of times before is not likely to help conservation. As Nichols said, there is "no more time for images that do not fight for that which has no voice." Learning what issues the area is facing and approaching from that perspective, however, will allow the photography to be educational as well as inspiring. As Sartore said, "these are the pictures that go to work." Limiting focus to issues should not detract from the beauty or impact of the photography. Think of a painter selecting a canvas. No matter the size of the canvas, the creative opportunities are infinite. Addressing issues should actually make the photography more relevant and publishable.

It is also important, following the examples of Davis, Mittermeier and Rainier, not to exclude humans from nature when approaching a story. Culture and nature are interconnected. The threats to biological and cultural diversity are often the same, as are the solutions for their protection.

As the earth's population approaches seven billion, a ten-fold increase in just 200 years, the challenges to sustaining the biosphere and ethnosphere are also growing. An exponential increase in global conservation awareness and action may be the only solution. Sartore said, "There are more conservation subjects than there are photographers at this point." Conservation photography as a field could not be arriving at a more needed time.

There are many considerations for how photography can best empower conservation. Borrowing a philosophy from science, it is often helpful to look toward the most parsimonious principals for guidance. As long as conservation remains the focus, the photography will likely develop in the right direction. To know that there are growing numbers of photographers who share this vision provides great hope that art will continue develop as a strong voice for science and help steer humanity away from crisis.

Social purpose and photographic vision were woven together in the pursuits of early documentary photography, which was born out of the Great Depression when there was seriousness and unity of purpose in America. Today conservation purpose and photographic vision are being woven together in the pursuits of the conservation photographers. Born out of the crises facing the biosphere and ethnosphere, the field of conservation photography will continue to grow, embodying hope to educate and inspire humanity to sustain biological and cultural diversity, essential yet imperiled resources. A quote by Henri Cartier-Bresson speaks prophetically to the challenge for conservation photography today, "Photographers deal in things which are continuously vanishing and when they have vanished there is no contrivance on earth which can make them come back again."

Future Goals for the Field

The extended public outreach and political influence that photography provides for science suggests that environmental photojournalism should be a planned component to any research or conservation effort that intends to make a difference. Achieving such collaboration requires greater dialogue between conservation researchers and photojournalists to establish mutual goals and improve working dynamics. In the future, photojournalists should not need extensive science training to work well in tandem with researchers. Shared conservation goals should provide common vision to establish the interdisciplinary partnership, as long as the value of combining professional photography and conservation science is adequately recognized.

One of the hopes expressed for the future of conservation photography as a field is that it will lead to greater opportunities for funding projects, independent from existing media or science budgets. It will also be helpful for mainstream media outlets to publish more conservation content.

Universities should also continue the development of interdisciplinary curricula for conservation communications. Additionally, strides for conservation awareness can be gained if the majority of nature photographers, amateur and professional, will become more engaged in conservation issues, recognizing their ability to be activists with the cameras.

CHAPTER 4
AUTHOR'S FIELD EXPERIENCE AND OBSERVATIONS

Conceptual Orientation

Like conservation photography itself, this interdisciplinary thesis has been part art and part science, resulting from extensive study in ecology and anthropology combined with the academic and professional pursuit of documentary photojournalism. Science has provided the vision and photography has developed as the voice.

The focus of my academic interest has been the relationship between humans and the natural environment, approached from an ecological perspective that places human beings within nature; we are the product of an evolutionary history that follows the same natural laws and is built from the same elements as the other forms of life with which we share the planet. My photographic vision is built upon this intellectual view of the world, including a range of assumptions. When I refer to *nature*, I am referring to the natural environment, physical and biological, and the network of life within it. As a naturalist, I see nature as an external reality (unlike post-modernists who believe aspects of our perception are entirely relative with no absolute reality). To some extent, I am also an environmental determinist, seeing nature as the foundation and driving factor in many aspects of human culture.

This ecological perspective places high value on natural landscapes free to breathe with natural, stochastic, self-governing processes outside of the direct influence of industrial societies and observes that the network of biological diversity that exists in the natural world is necessary to support life on earth. The conclusion is that these natural ecosystems must be conserved in order to maintain the balance that will allow humans and other living things to persist into the future. This leads to a strong conservation ethic, seeking to protect natural environments from

damage and over-exploitation by humans. An associated bias views nature communities as “good” and modern human societies as “bad” in terms of their influence on nature.

Through my environmental and social education I have also become increasingly aware of the side effects to free-market capitalism and believe that without strong regulation, processes of greed and competition will ultimately destroy the natural world. Capitalism can also have a tendency to marginalize societies with less access to modern technologies. So in the modern world, people living closer to the land with less resource-intensive technologies can often be seen as victims of more developed societies who reshape both natural and cultural landscapes. In this sense, I have a tendency to view closeness to nature as “good” (i.e. a traditional native community) and distance from nature as “bad” (i.e. a New York financial executive without interest in his or her ecological footprint). This polarization may overly simplify human proximity to nature, but the perspective is grounded in the observation that societies disconnected from nature, buffered by their technologies, can easily continue to exploit nature at unsustainable intensities because they do not receive direct feedback on their behaviors. This is the tendency in western societies. On the contrary, societies more connected to nature are positioned to be more sustainable in their resource use because they can be more aware of their environmental impacts.

Introduction to Photography Projects

The Interdisciplinary Ecology program at the University of Florida provided the structure to pursue graduate training in ecology and conservation biology while undertaking a written thesis and professional project relating to environmental photojournalism. The thesis developed into this broader examination of conservation photography, but the photographic component began as a documentary field project I produced as an intern with the Smithsonian Institution, focusing on biodiversity in Gabon, Africa. The field work, which extended from 2001 until 2004,

provided first-hand experience with the process of combining photography and science on the front lines of research and conservation. The work was essentially an experiment in “conservation photography,” although that term would not begin to carry much meaning in photography and science circles until 2005.

The majority of this chapter is dedicated to discussion of the Gabon biodiversity project and production of the book, *The Edge of Africa*, which is accompanying the Professional Project portion of this thesis: a portfolio of photographs archived in the Allen H. Neuharth Library of the College of Journalism and Communications. Introducing the Gabon project in this chapter, however, does suggest that is a seminal work in conservation photography. But its inclusion is necessary to relate this written thesis to the photographic field work and publishing effort that formed the basis of this academic inquiry. Beyond this function of relating to my own attempts at conservation photography, this chapter includes personal observations from the field; exploration of the process of combining photography with science.

Photographs from conservation stories subsequent to the Gabon work are also represented in the professional project, including samples from four projects: *The Desert Elephants of Mali*, *Last Frontier – The Living Heritage of Florida Ranchlands*, and *Andros – Creating a New National Park in the Bahamas*. The purpose of the professional project is to relate photography to this writing and further illustrate the author’s recommended approach of developing photography projects in partnership with scientists and conservationist.

The Biodiversity of Gamba

There is a magical place at the edge of Africa where rainforest meets ocean, where elephants and buffalos walk white sand beaches, and hippos, crocs and sea turtles share the surf. The forest rises a hundred feet tall, full of life in a layered complexity stretching far beyond the horizon. Forest, grasslands, rivers and lagoons form a unique landscape mosaic. There is no place like it on earth (Ward et al 2003).

The landscape of Gamba, in the southeastern corner of Gabon, is wild and undeveloped, like much of country, providing refuge for a wealth of biological diversity, including many species endangered elsewhere on the continent. Contiguous to Cameroon, Equatorial Guinea and Congo, and by extension Central African Republic and Democratic Republic of Congo, the network of tropical rainforest anchored in the west by Gabon is the second largest in the world (second to the Amazon). These Central African forests are of global importance for conservation. This is especially true in Gabon. With a human population of just over one million and an economy which has been sustained by rich oil reserves, nearly 80 percent of Gabon is still covered by rainforest (Quammen 2003).

With oil reserves declining and logging pressure on the rise, Gabon has reached an important crossroads in its development as a nation where the leaders have a unique opportunity to incorporate conservation into their plans. The Gamba region in southwestern Gabon has been recommended for official protection, but prior to 2001 there had been no comprehensive assessment of biodiversity to substantiate the recommendation. Accompanying the lack of scientific knowledge, there was little awareness or appreciation within Gabon or among the international community for the biodiversity of Gamba.

In July 2001, through a partnership with Smithsonian Institution's Monitoring and Assessment of Biodiversity Program (SIMAB), I had the opportunity to participate in the first-ever multi-taxa biodiversity assessment of region. A major component to SIMAB's objectives in Gabon was to "disseminate the scientific information generated from the biodiversity assessments to a wide range of audiences" (Dallmeier 2001). SIMAB provided opportunity for me to complete the fieldwork for my thesis project and the photography provided them with a means to carry science-based messages to many people who otherwise may not have paid

attention to facts and figures alone. I was able to develop a visual communication strategy and become employed by the Smithsonian for seven expeditions and eight months of field work over the course of three years.

Objectives / Project Significance

The purpose of this project was to visually document Gamba: the landscapes, the wildlife and the people, in order to raise environmental awareness within Gabon and among the international community and inspire conservation action.

The value of conserving biological diversity has become widely recognized in recent years, particularly in tropical forests.

Every second, 1 hectare (2.4 acres) of rainforest -- the size of two U.S. football fields -- is destroyed. That's an area larger than New York City destroyed each day, an area larger than Poland destroyed each year. Along with forest loss comes species extinction. Renown Harvard University entomologist and ecologist E.O. Wilson estimates that 137 life forms -- from microorganisms to insects to mammals -- are driven to extinction each year (1992 estimate). Nearly half of all life forms on the planet live in tropical rainforests (Alonso 2001).

Recognizing the conflict with nature implicit in the development of modern human societies, my work in Gabon was approached from a conservation perspective. By using photography as a voice to express my conservation ideas, I had the opportunity to influence public attitudes toward biodiversity and hopefully steer decision makers toward greater stewardship of natural resources. My project was geared toward this purpose -- to improve appreciation for Gamba's biodiversity within Gabon and internationally and use the photographs as a tool to implement change, at the local level and at the policy level.

Following the field work, the photographs became part of an effort to achieve the greatest possible appreciation for Gamba's landscapes and biodiversity. Many of the publications produced were the first in the western media focused on the Gamba region, including *The Edge of Africa*. The book was the first of its type focused on Central Africa. With inspiration from the

biodiversity series by Conservation International, the author and the SIMAB management team designed *The Edge of Africa* for political influence, including introductory letters by President El Hadj Omar Bongo of Gabon, U.S. Secretary of State Colin Powell, Smithsonian Secretary Larry Small, and Shell CEO Phil Watts.

Methodology

Documenting this amazingly diverse region required a wide variety of photographic techniques, from aerial photography of landscapes to micro photography of insects. On average, the sun in Gamba broke through the clouds in just one out of three days. Good lighting was a blessing when it came, but the weather changed rapidly and was difficult to predict. The typical dim lighting required the use of heavy tripods and fast lenses. High humidity and constant rainfall conspired against equipment, and salt air and wind-driven sand in the coastal areas added to the toll. It was necessary to store cameras in dry boxes with desiccant to keep them functioning.

Camera equipment. I used a Nikon SLR camera system, including 35mm film-based camera bodies and a D1x digital camera body, with lenses ranging from 20 mm to 600 mm. Macro lenses – 60 mm, 100 mm, and 200 mm – which allow close focus and high magnification, were the cornerstones of my studio photography. Otherwise, preferred lenses were 600 f/4 for wildlife and 28mm f/1.4 and 35mm f/2 for photographing people. For film, when not shooting digital, I relied on Fuji Velvia 50 and Kodak E100G/GX, often pushed one stop.

Studio photography. To illustrate the diversity of wildlife in vivid detail, particularly reptiles, amphibians, insects and small mammals, I configured a modular studio consisting of two to four diffuse light sources and a black velvet backdrop. To maintain flexibility, I designed variable power supplies that allowed the use of 110/240 volt current, AA batteries, or a 12-volt car battery charged from solar panels.

Continuing the studio approach with birds, I built an enclosure based on the concept described by John S. Dunning (1970) in *Portraits of Tropical Birds*. My bird studio was constructed from white sailcloth and aluminum poles, creating a three-meter long by one-meter high rectangular enclosure with a hole for the camera in the front and a removable background. After ornithologists studied a bird caught in a mist net, I put the bird in the studio to perch on the one available branch. Four strobes provided lighting from the outside through the translucent sailcloth. After posing for photographs, birds were released back into the forest.

Landscapes, wildlife and people. The purpose here was to capture the essence of place, from the light on the land, the posture of an elephant, or the eyes of a tribesman. I took a documentary approach, always seeking a moment to illuminate place more clearly. For landscapes, I identified representative scenes and then returned and waited for suitable lighting. For wildlife, I studied movements, tried to anticipate where I would have the best chance of encountering action, and then searched out good light and informative placement within the habitat. Rainforest animals are very elusive — even enormous hippos and elephants are difficult to locate. Patience was necessary and progress was slow. Wildlife photographs often required waiting for hours in newly built hides or setting up camera traps. To photograph people (which I had to do primarily on my own because it was not considered a priority to the research agenda), I moved among towns and villages, trying to keep a low profile and always showing respect. The greatest acceptance and access usually came after several return visits.

Camera traps. Many forest animals are elusive or nocturnal, making them extremely difficult to photograph by traditional means. Camera traps, which use an infra-red beam to trigger a camera, allow an animal passing through the beam to make its own picture. Scientists and hunters have used this method for years to record the presence of animals along trails. While

their photos are useful for identification, they are not of publishable quality. To produce high-quality results, I reconfigured Trail Master camera trap systems to fire Nikon professional cameras and strobes. Working with custom-built camera traps was tedious, labor intensive and filled with risk – I had setups drowned by floodwaters, smashed by fallen branches, and bashed by gorillas. But in the end, they produced photographs that were not otherwise possible.

Aerial photography. Photographing from above provided an informative perspective on the landscape, revealing interface and linkages among habitats. This approach was particularly important in Gabon where the patchwork of coastline, grasslands, water, and forest defines the ecosystems. Aerial pictures were made from radio towers as well as a low-flying Cessna 182 aircraft.

Lessons Learned from Gabon

The need for a photographic communications strategy. Photographers, like other artists, often pursue personal vision that may not be easily understood by others, and the perspective of art often seems abstract from the quantitative perspective of science. In order for art and science to work well together, there needs to be clear communication of mutual goals and common vision. This is a lesson learned during three years working with Smithsonian scientists.

During the first Gabon expedition, there was not a coordinated plan for the role of the photography, primarily because it was the first time the group of scientists had worked with a professional photographer in the field. The full research team had not been presented with the purposes of the photography, leading to some mismanaged expectations. There was lack of appreciation by the scientists for the difficulty of the photography or its importance for conservation. The lesson I learned has since guided my approach to working alongside researchers on the front lines of conservation: all of the problems were the result of inadequate communications and failure to establish clear common goals.

Prior to the second expedition, these problems were solved when I wrote a Photographic Communications Strategy, which included proposed publications, the types of photographs needed to support those publications, and the resources and time required to create the photographs. Even though I entered the work with Smithsonian with degrees in biology, spoke the language of science and shared many of the researchers' perspectives, without a mutually agreed communications strategy, we were not reading from the same page.

Challenges to maintaining focus on conservation. Designing *The Edge of Africa* as a conservation tool presented a number of challenges. Most of the issues arose from the interrelated challenges of maintaining focus on content and place and from advancing an ideal-driven book in a profit-driven world. Addressing conservation concerns in any particular landscape requires a focus on place as well as a certain degree of sophistication to address the issues. There is a balance between making a book generally appealing to attract broad audiences and specific enough to serve the conservation issues being explored. I presented this dilemma to Sean Moore, director of Hylas Publishing, who eventually published the book in partnership with the Smithsonian Institution. Initially, Hylas promoted the idea for a generic collection of animal photographs titled, *All Life is Here*. The motivation was general appeal and estimated sales. They feared that a book about Gabon or even Africa would be too specific and limit sales. That may have been true, but I knew that any book would lose its power for conservation influence unless it dealt specifically with the place of concern.

I presented to Hylas that the story was about a place called Gamba, on the coast of Gabon, where elephants roam the beaches, hippos ride in the surf and hundreds of equally impressive birds, reptiles and amphibians make the rainforests dance with life. This place – Gamba – was the crux of the story, unique to the world and virtually unseen by western eyes. If we did not

retain focus on the specific places, we would lose the ability to advance awareness for issues and conservation there.

Hylas Publishing finally accepted this point of view, but we had to seek outside funding for publishing costs. With a portfolio of prints, SIMAB director Francisco Dallmerier and I convinced the CEO of Shell Gabon, Frank Denelle, to pre-order 5,000 books, sufficiently subsidizing the overall print run of 15,000. Outside funding allowed the book to remain focused on Gamba, science and conservation issues, and also reach the broader public. All of the copies allocated for retail markets sold out within the first six months. The experience showed that books which are conservation tools can require support and that outside funding will often be necessary to create conservation literature for the public.

Potential problems with profile. The same high-profile nature that makes photography-rich publications influential can also be the source of problems in the dynamics of funding scientific research. In the case of the Smithsonian work in Gabon, the principal project sponsors, Shell International, Shell Gabon, and Shell Foundation, all received positive public relations value from the photography-rich publications. In Gabon, these companies demonstrated a sincere interest in conservation of biological diversity, but once such companies have received their positive public image from association with conservation there is the risk that they could reduce funding for less glamorous aspects of scientific research and training. There is also the potential for a company to use environmental publications to “green wash” their image, selling themselves as more environmentally friendly than they are. These tendencies seemed well-managed with the Gabon project because stakeholders considered such potential detractions when planning the conservation communications efforts.

Project Outcomes

The overarching objective of the photographic communications was to positively affect the course of development in Gabon to appreciate and safeguard biological and cultural diversity. The approach to this goal was to generate high-profile publications, seeking to educate and inspire the public and decision makers.

The central product was *The Edge of Africa*, which was also distributed in Gabon with the French title *Gabon: Paradis de la Biodiversite*. The photography led to more than an dozen magazine articles in Africa, Europe and the United States, and was featured in television documentaries and web productions. An exhibition of fifty photographs also travelled to Gabon, London and New York, where it was featured by the United Nations. These various publications are listed in the references.

The scope of the communications exceeded the expectation of the research team and illustrated what coordinated photography can do to enhance outreach of science and conservation. The relatively small investment to include a professional photographer as part of a research expedition led to exponential increase in exposure for the science-based messages.

Selected Conservation Photography Projects by the Author, 2004-2007

After the completing the Gabon project and publishing *The Edge of Africa*, my subsequent photography endeavors have shared common themes which I propose to be important for successful conservation photography. These include: conservation as primary purpose, collaboration with scientists and conservation organizations, and portraying local culture in the representing nature. The projects *The Endangered Desert Elephants of Mali*, *Last Frontier – The Living Heritage of Florida Ranchlands*, and *Andros – Creating a New National Park in the Bahamas*, will be briefly discussed in relation to the above themes and are illustrated by the professional project.

The Desert Elephants of Mali

There is an endangered population of elephants in the Sahel of Mali (and Burkina Faso) which endure a 500 mile annual migration, the longest of any land animal, in their annual search for food and water. Desertification, overgrazing, and lack of water, and settling of formerly nomadic tribes, are presenting environmental challenges for both the elephants and local people. The Toureg and Fulani herders were included in the photography because their culture depends on the same conservation needs as the elephants. By mitigating damage to the Sahel, these cultures can both save the elephants and save themselves.

Photography was coordinated with *Save the Elephants* and the *Wild Foundation*, research and conservation organizations working to understand and protect the last elephants in the Sahel. The photographs supported photo-identification study of the elephant population and also helped spread the story through mainstream media outlets.

Last Frontier – The Living Heritage of Florida Ranchlands

Nearly one fifth of Florida is still covered by working cattle ranches and Florida boasts America's longest history in ranching. Today, Florida has five of the top ten cattle operations in country, including the top producer. Cattle raising was Florida's first industry agriculture is Florida's second largest industry behind tourism today. In addition to these cultural attributes, the relationship between Florida ranches and the natural environment is the most important part of the story.

Of all extractive land uses in Florida, responsible cattle ranching is the most compatible with preservation of native habitats, wetlands and wildlife. Yet Florida ranchlands are under siege. With 1,000 new residents moving to Florida each day, the state loses 200,000 acres of agricultural and natural land every year. Much of this loss is ranchland and your average citizen

in not even aware of its existence. Black bears walk through palmettos as they once did in every Florida county and cowboys drive cattle across the range as they have been going for centuries.

As with the Malians and the Sahel, the culture of Florida cattle people is endangered by the same environmental factors that threaten the ranchlands. Florida ranchers depend on landscape that has shaped them and that they in turn protect. Therefore, the photography has equally emphasized ranch culture along with wildlife and landscapes of their land.

Collaborations have included *Audubon of Florida*, *Conservation Trust for Florida*, *Florida Cattlemen's Association*, *Florida Department of Environmental Protection*, *Legacy Institute for Nature & Culture (LINC)*, *The Nature Conservancy*, *1000 Friends of Florida*, and *World Wildlife Fund*, all which have used the photographs to advance their missions to protect Florida ranches.

Andros – Creating a New National Park in the Bahamas

The west side of Andros Island is one of the last remaining pristine wilderness areas in the Bahamas and the proposed site of a new national park. The mangrove habitat provides critical nursing grounds for fish species of economic importance as well as one of the hotspots for juvenile sea turtles for the entire Atlantic and Caribbean.

In order to establish priorities for protection, the Nature Conservancy coordinated the first-ever ecological assessment of western Andros in 2006. The expedition included ten scientists and several students who gathered data throughout the mosaic of coastal habitats.

Photography focused on the key species and landscapes being studied, as well as the cultural connections to the natural resources, including recreational fishing, for which the area draws international fame. TNC is using the photography, in collaboration with the Bahamas National Trust, the Bahamian Government and the Kernzer Family Foundation to pursue public support for the proposed park.

Future Goals for the Author

The author's goal is to build a legacy of conservation influence in Florida, primarily through conservation photography. Focus will include Florida ranchlands, coastal fishing communities, Tampa Bay, the Everglades, as well as native and rural communities. He would also like to see LINC continue to grow in its ability to empower photographers to develop critical awareness for Florida's conservation issues and expand the scope to utilize a broader array of arts for conservation communications.

APPENDIX A
RESOLUTIONS IN CONSERVATION PHOTOGRAPHY FROM THE 8TH WORLD
WILDERNESS CONGRESS IN ANCHORAGE, ALASKA, OCTOBER, 2005

RESOLUTION #24

TITLE: Recognition of International League of Conservation Photographers (ILCP)

WHEREAS:

The conservation community has not had an internationally recognized body of professional conservation photographers to work with;

The very best images illicit the strongest human emotional responses crucial in influencing public on conservation issues;

The most important conservation issues deserve the highest quality visual imagery available to facilitate the greatest chance of success;

THEREFORE:

Recognizes the need for quality professional images in those campaigns, and hereby

RESOLVED:

The establishment of the International League of Conservation Photographers as a catalyst for communication between mass media and conservation be recognized by the public and all relevant institutions;

PROPOSER: Cristina Mittermeier – CGMittermeier@aol.com

SECONDER: Marty Maxwell
Cathy Hart – cathy_hart@dot.state.ak.us

RESOLUTION #27

TITLE: Working Relationship between Scientists and Photographers

WHEREAS:

Effective conservation is founded on sound science and good communications;
Science does not always successfully reach the general public or adequately inform policy decisions;

Photography is a powerful communications tool which is not always properly planned or funded in scientific endeavors;

There exists a lack of interaction, understanding and exchange between scientists and photographers.

THEREFORE:

Recognizes the ability of photography to bridge the gap between conservation science and the general public.

RESOLVED:

The International League of Conservation Photographers create an effective interface between scientific and photographic communities; promote the mutual benefits of photographers and scientists working together; and establish good working practices including those related to initial funding and ethics.

PROPOSER: Christian Ziegler – zieglerphoto@yahoo.com
Associate for Communication, Smithsonian Tropical Research Institute

Piotr Naskrecki - p.naskrecki@conservation.org
Director of Invertebrate Diversity Initiative,
CABS, Conservation International, Harvard University

SECONDER: Carlton Ward Jr – carlton@carltonward.com
Legacy Institute for Nature & Culture, www.LINC.us

Djuna Ivereigh – djuna@indonesiawild.com
Indonesia Wild

Leda Huta – leda@findingspecies.org
Managing Director, Finding Species

Jeremy Monroe
Freshwaters Illustrated

Catherine Cunningham

Richard Edwards
Arkive Director- Wildscreen

APPENDIX B
THE INTERNATIONAL LEAGUE OF CONSERVATION PHOTOGRAPHERS

The International League of Conservation Photographers (ILCP) was founded at the 8th World Wilderness Congress in Anchorage, Alaska in October 2005.

ILCP Core Values (www.ILCP.com):

- An outstanding commitment to conservation
- The highest ethical standards in the practice and business of photography
- Mastery in the fine art of photography
- Leadership to achieve change.

ILCP Objectives:

- To use the power of photography to help educate the world community and to further conservation goals.
- To create compelling and informed images and to develop visually based campaigns to promote conservation issues.
- To facilitate the connection of photography with environmental, scientific, cultural media, governmental, religious and educational resources.
- To be a virtual clearinghouse of information for members.
- To develop a code of conduct for photographers.
- To promote business practices that demand truth in and high ethical standards in captioning and manipulation.
- To encourage conservation education.
- To encourage an ethnically and geographically diverse membership.
- To attract fellowships and grants to support young photographers or photographers with innovative ideas to promote conservation.

ILCP Membership October 15, 2007

Fellows:

Alison Jones	Florian Schulz	Michele Westmorland
Amy Gulick	Florian Möllers	Niall Benvie
Annie Griffiths Belt	Gary Braasch	Patricio Robles Gil
Art Wolfe	Igor Shpilenok	Phil Borges
Boyd Norton	Jack Dykinga	Piotr Nasckrecki
Brian Skerry	James Balog	Robert Glenn Ketchum
Carlton Ward Jr.	James H. Barker	Roy Toft
Chris Rainier	Jim Brandenburg	Staffan Widstrand
Christian Ziegler	Joel Sartore	Stephen G. Maka
Colin Prior	Karen Hollingsworth	Theo Allofs
Connie Bransilver	Karen Huntt	Thomas D. Mangelsen
Cristina Mittermeier	Karl Ammann	Tom Blagden
David Doubilet	Kevin Schafer	Tui De Roy
Dorothy and Leo Keeler	Matthias Breiter	Wade Davis
Flip Nicklin	Michael "Nick" Nichols	Xi Zhinong

Associate Members (pending):

Beverly Joubert	Magnus Elander	Sandesh Kadur
Daniel Beltra	Michael Aw	Stefano Unterthiner
Francisco Marquez	Michael Forsberg	Steve Winters
Frans Lanting	Norbert Rosing	Suzy Esterhas
Klaus Nigge	Paul Nicklen	Tim Laman
Luciano Candisani	Peter Cairns	Vincent Munier
M Balan	Rob Rozinski	Wendy Shattil

Affiliate Members:

Amy Marquis, Assistant Editor National Parks Magazine
Bill Konstant, Conservation Director, Houston Zoo
David Anderson, Director, Focus on Planet Earth
Eric Samper, Terre Sauvage Magazine, France
Gerry Ellis, President Globio
Helen Cherullo, Publisher - The Mountaineers Books
Jared Diamond, Author and Pulitzer Prize winner, US
Jeff Corwin, Animal Planet
Joe Rhode, Imagineer, the Walt Disney Company
John F. Martin, President Images for Conservation Fund

John Nuhn, Editor National Wildlife Federation Magazine
Kathy Moran, Senior Editor Natural History National Geographic Magazine
Larry Minden, President, Minden Pictures
Mark Godfrey, Director of Photography, The Nature Conservancy
Marlin Green, President ThreeHats.com
Mark Lukes, President, Fine Print
Mark Plotkin, The Amazon Conservation Team, US
Melissa Ryan, Editor, The Nature Conservancy Magazine
Michael Hutchins, President The Wildlife Society
Miriam Stein, Editor, National Geographic Explorer Magazine
Patricio Robles Gil, President Agupación Sierra Madre
Peter Laufmann, Natur Kosmos Magazine, Germany
Rod Mast, Conservation International, US
Roz Kidman Cox, former editor BBC Wildlife Magazine, UK
Sterling Zumbrunn, Director of Photography, Conservation International
Steve Freligh, President Nature's Best Foundation
Susan McElhinney, Editor Ranger Rick Magazine
Tom Carlisle, Chair, Environment Committee, NANPA
Swati Thyagarajan ND 24/7 TV, India
Harriet Nimmo, Director Wildscreen Film Festival
Richard Edwards, Director, ARKIVE
Rob Sheppard, Editor Outdoor Photographer Magazine
Sophie Stafford, Editor BBC Wildlife Magazine
Deborah Sage, Competition Director, Shell-BBC Wildlife Photographer of the Year
Gemma Webster -- Competition Officer, BBC Wildlife Photographer of the Year
Helen Gilks, Director Nature Picture Library, UK

Board of Advisors:

Sir David Attenborough, naturalist and broadcaster
Dr. Sylvia Earle, Executive Director for Marine Conservation, Conservation International
Dr. Mike Fay, Science and Exploration Program, Wildlife Conservation Society
Armando Garcia, Vice President for Development, Cemex
Dr. Jane Goodall, founder of The Jane Goodall Institute, Messenger of Peace for the UN
Sir Ian Douglas Hamilton, President & CEO, Save the Elephants
Dr. Thomas Lovejoy, President, The Heinz Center
Dr. Vance Martin, President, The WILD Foundation
Dr. Russell Mittermeier, President, Conservation International
Dr. George Schaller, Chief Scientist, Wildlife Conservation Society

APPENDIX C
LETTER PROPOSING CONCEPT OF LINC

10 August, 2004

Dear Friends and Colleagues,

My recent work in Africa (Gabon with the Smithsonian Institution and Mali with the WILD Foundation and US State Department) has shown me the value of using documentary photography to make a difference for conservation.

Now, I return to Florida with a renewed sense of urgency to promote conservation of natural habitats and cultural legacies here in a state where development pressures are especially strong and natural heritage is largely unappreciated and vanishing at an alarming rate.

My new book, *The Edge of Africa*, is a collaboration with the Smithsonian Institution and other scientific organizations, the governments of Gabon and the US, and Shell Oil Company, all working together for conservation. The book and associated exhibitions have made clear the power of photography to change perspectives and catalyze change. During my travels, several locals told me the photos made them proud to be Gabonese; they saw their natural heritage in new light. Similar positive influence is being achieved in Mali by using photographs to raise awareness, political support and funding for the protection of endangered desert elephants.

Using photography to promote conservation has become the driving force in my life and I intend to create a non-profit organization for that purpose – an institute for documenting environmental and cultural issues in order to promote conservation of environmental and cultural heritage. This institute will provide a vehicle for my vision and a platform from which I can form partnerships with research and conservation organizations, government agencies, corporations and individuals.

My work will begin here in Florida, where I am best suited to make a difference due to my background and education. I feel especially connected to Florida's landscape and cultural history due to my personal experiences and a family history that traces back eight generations. Additionally, I have gained a broad and interdisciplinary perspective on conservation problems from my graduate education in ecology and environmental journalism at the University of Florida. Based on my recent experiences overseas in environmental photojournalism, I will also pursue projects international in scope where I see the opportunity to make a difference.

Projects and initiatives for 2004 and beyond:

The Florida Cattle Ranch – Nature's Last Stand – an in depth look at the environmental conservation value of beef ranching in Florida – with a goal of raising awareness and influencing policy change to encourage ranching over other more destructive land-uses, such as intensive agriculture and residential developments.

Strategic Partnerships with other organizations, such as the Nature Conservancy and the State of Florida to promote acquisition of priority conservation habitat, or USAID and the WILD Foundation to raise awareness for imperiled desert elephants in Mali.

Scholarships and Fellowships – I would like to offer one student scholarship and one professional fellowship/sabbatical each year to individuals using documentary photography to make a difference for conservation. Once I raise necessary funds, this aspect will be administered under a foundation within the institute (*e.g. Legacy Foundation*)

Naming the Institute

I am seeking a name which is descriptive to the institute's purpose, yet easily recognizable at the same time. I have been pondering this issue for several months and have arrived at a first choice and several alternatives. Please provide feedback on the following ideas, and please share any new ideas you may have.

LINC – Legacy Institute for Nature and Culture

Draft Mission Statement:

The Legacy Institute for Nature and Culture (LINC) aims to raise awareness for natural environments and cultural legacies, educate about important connections between human societies and natural ecosystems, and promote conservation and stewardship of natural heritage for the betterment of present and future generations. The main tool of the institute is photographic documentary of threatened or changing landscapes, ecological and cultural. Visual communications is the main voice of LINC's educational and political purposes. LINC will also create scholarships and fellowships to empower other journalists to pursue meaningful projects within the scope of the institute's mission.

I like LINC because the acronym is easy to remember and plays off the notion of connection. It is also general enough that beyond my Florida projects I will be able to partner with international organizations. I was also able to reserve the web domain: www.LINC.us.

Best regards,



Carlton Ward Jr.

APPENDIX D
CONSERVATION PHOTOGRAPHY SURVEY – OCTOBER 15, 2007

Questions:

- 1) What is the difference between Conservation Photography and Nature Photography?
- 2) Do you see Conservation Photography as an emerging field?
- 3) What are your hopes for the role of Conservation Photography in the coming decades?

Responses:

Jim Balog

Conservation Photography (CP) is Nature Photography (NP) with an edge. NP generally is focused solely on celebrating the beauty of nature. While much CP certainly focuses on beauty, CP is invested with another meaning too: the natural world is in danger and must be preserved.

In the techno-consumerist-industrial age of today, where the human race is brutalizing nature at an ever-faster pace, CP emerges as a focused force with an intensity much greater than anything that photography mustered in decades or centuries past. We MUST use these tools as eloquently as we can or else we can simply congratulate ourselves on living through the extinction of nature. There is no room for uncertainty, no room for cynicism, no room for doubt or else those who follow us on this planet will damn us for our weakness. The least we can do is the best we can do.

Gary Braasch

1. In general CP is a subset of NP, in which the photos are made to show, and/or interpreted for the viewer as illustrating, an issue of conservation, preservation or natural history science. CP also includes images of indigenous peoples and the social issues they face. There is frequently an overt attempt of persuasion or advocacy accompanying the photos. The larger realm of nature photography includes photos made to extoll, display or study the beauty and complexity of nature, without any apparent issue or advocacy involved. Sometimes it is a matter of the caption, but as practiced by many members of ILCP, CP is the outgrowth of an interest in conservation or a particular issue which lead to the creation of the images.

I have long used the term environmental photographer to describe what I do -- which is meant to evoke the ideas of our whole world in which we live and the field of environmentalism, or the full range of conservation advocacy and politics.

2. No, it is really one of the first purposes photography was put to, recalling the images that helped convince the Congress to establish the National Parks and preserve part of the Yellowstone region. It did not have a name nor an organization to foster it until recently. The most famous nature photographers like Eliot Porter and Ansel Adams were absolutely in thrall of the beauty of nature. But both were very active conservationists who used both existing photos as well as purposefully made ones to advocate for conservation and preservation. I don't know what they called themselves. I think I saw in Ansel's writings that he felt this was what a photographer and citizen did when he saw how threatened his subject locations and other natural areas were.
3. That it have a greater voice. I mean that word specifically. Certainly I want our photos to reach a broader audience. But I also want our expertise, knowledge, backgrounds and intelligence to be a larger part of national and international decisions about environmental issues. Apart from the indigenous people and the current land managers and scientists, there is no other group of people who knows as much about our planet's wild places and endangered life as nature photographers. Those of us who wish to should be called

on more often into national debates and negotiations over environmental and conservation matters --- and everything that affects them.

Connie Bransilver

1. In nature photography it's just about the pretty picture without regard for the creatures or the environment in which the image is made. Conservation photography is intended to illustrate a scene or area or issue, etc., to awaken public attention and a drive toward conservation
2. Most certainly, but to be really successful, it needs to be positive. People want and need hope and beauty rather than ugliness and despair.
3. That the conservation movement matures toward positive answers to the now-obvious issues facing our species and all other species with which we share the planet.

Amy Gulick

1. Nature photography illustrates nature subjects, whereas conservation photography illustrates the conservation of nature. It's like the difference between nature writing and investigative journalism with conservation as the subject. Conservation photography seeks to use images to strengthen the case for conserving threatened species and habitats, and solving today's pressing environmental issues.
2. Yes, finally. While it's been around for a long time, it hasn't received the attention it deserves. As conservation topics finally make headline news (e.g. global warming, fossil fuels and associated environmental costs, alternative energy, etc.), images to illustrate these issues are increasingly important.
3. I would like to see more conservation photographers make images that show people the connection between a healthy environment and their own well-being, from ecological, economic and social standpoints. I would also like to see more and more nature publications, as well as mainstream publications, embrace conservation photography stories and realize that they won't lose readership if the stories are presented in a way that connects with viewers in a positive way, empowering them to make lifestyle changes that will benefit all life on earth.

Allison Jones

1. Nature Photography focuses on the beauty and diversity of species and ecosystems. Conservation Photography focuses on that, but just as importantly or perhaps more importantly on the threats to the delicate balance of nature and consequences of those threats. As well, Conservation Photography goes one step further by disseminating images in an effort to provoke and promote paradigm shifts in consumption and conservation of our natural resources. And lastly, Conservation Photography also focuses on and ecosystem and bioiversity management systems being put in place.

All of that indicates that Nature Photographers are looking for landscapes without indications of human influence, just as did their predecessors – the fine arts, salon-type of painters with their strict definitions of what constitutes a “landscape.” However, Conservation Photographers are constantly looking for ways to illustrate damaging elements of the human footprint, in order to raise an awareness of and thus prevent further degradation.

2. Most definitely. Al Gore’s movie has proved that visual media can make a difference and that we must pay attention to the crises now facing this planet.
3. That we’ll be able to get all the funding and other support we need to do the footwork in mobilizing a change in attitude towards conserving this planet – before it’s too late. Conservation Photographers are

passionate and willing to go the extra mile to make a difference, even when it means exposure to dangers ranging from malaria to bears to extreme altitudes or temperatures. They are willing to be the foot soldiers on the battle front, but they need backup support!

Robert Glen Ketchum

1. Conservation photography acknowledges work that is being directed in an advocate/pro-active way on behalf of a specific issue/cause, not simply nice pictures of nature.
2. Not a field, a personal belief and commitment.
3. That photographers working in this way will accelerate the dissemination and use of stories and images that will be pertinent to the future of species survival on this planet.

Florian Möllers

1. CP is more than a hobby or a passion or a profession, which might apply to NP. It means that you understand the needs of how to communicate conservation, scientific research or the aims of special programs to protect species or habitats and - much more important - that you especially design your work to match these needs. The main reason for any CP output is to raise awareness and promote conservation issues. On the contrary NP is something that is intended to give you pleasure, relaxation and an intimate encounter with the wild, but does not follow any conservation purpose as such. The benefit is to the photographer not to a species or a habitat.
2. Unfortunately, not at all.

Here in Europe, many hobbyists give away their pictures for free to conservation groups, NGO and their magazines. But, not so much because of their moral obligation to contribute to conservation but to have their work published and gain personal satisfaction and a higher social status.

Professionals still don't bother much and just try to make a living, which is hard enough as we all know.

I think one important reason for that is that CP/NP is not considered to be worth paying for. Everybody does it (NP). The internet is swamped with pictures of natural subjects and nobody cares about the aesthetic appeal, scientific correctness or photographic impact of an image if there is not enough budget reserved to pay a photographer for his/her work. Not NatGeo rates, but pay him/her at all or reimburse for expenses, etc.

There are other missing stimuli for (PRO) photographers to devote their time and talent to CP: output often low quality, low numbers, bad printing, missing photographer/copyright information, etc.

I have the feeling, many of us desperately want to give something back and would like to put more effort in CP or switch to it completely. But we (PROS) have to make a living just like other people (biologists, graphic designers, project managers, staff) and conservation still has to understand that. On the other side we have to work hard on promoting that. ILCP would be the right "force" behind such PR.

3. More joint projects including many photographers (RAVE; WILD WONDERS OF EUROPE etc) to deliver more impact on the public, A better way of understanding each others needs/of communication on the NGO side/on the photographers side

Flip Nicklin

1. For me it is not what you do, but what you do with it. Using Nature photography to further conservation issues.

2. I really think of it as a way to pay back, not as a field of work.
3. That nature photography can make a difference in our efforts to keep systems working.

Michael Nichols

1. I believe that would-be conservation photography clearly has a mission rather than pure entertainment. The photographer chooses subject matter and publication outlets that can effectively help conservationists to get their message, do fund raising, affect legislation and so on. Nature photography might be defined as "pretty pictures" of nature, and nothing wrong with this if it does some good.
2. I think the question is asked because we are experiencing an effective awareness about nature in the first world and therefore photographers that might have concentrated on social issues and war are turning to conservation. The same is true with publications.
Al Gore's gets the Nobel Prize and I would not be surprised if this year's World Press photo winner is not an environmental image. IT is in the air now more than ever!
3. No more time for images that do not fight for those and that which has no voice. no doubt our kind of image making is going to be the next big thing, and frankly it simply has to be this way.

The world is on the brink and I guess we will document the whole thing. It is a shame we cannot win the war.

Tui de Roy

1. Conservation Photography is the use of Nature Photography to convey a message that is bigger and more lasting than the images themselves.

It require seeing and feeling the vulnerability of the subject and somehow projecting that unequivocally through choice of angle and other creative means. And when the photo is taken the job doesn't end - in fact it often only just begins: Using words, sequences, venues, music, and a myriad other means to strengthen and focus the conservation message held within the image. Just as Ballet in a combination of Music, Dance and Set, Conservation Photography is the marrying of Subject, Creative eye and Delivery. As such it could be seen as a whole new discipline.
2. CP has always been here, but neither the photographer nor the audience has necessarily been aware of it - it has often been a haphazard, disjointed process. The ILCP has now become the catalyst for people inside and outside the trade to hear the message loud and clear, to give a voice to the movement. And, not least, to bestow upon its practitioners a real sense of responsibility based on exacting ethics: an imposter, or even freeloader, will tarnish the entire movement.
3. I hope CP will go from strength to strength as an unbiased medium by which to connect the plight of the natural world with the people physically removed from it. We must therefore never rest in our pursuit of increasingly sophisticated ways of reaching our audiences' hearts, because at the end of the day, how we treat the planet will hinge primarily on how we feel about it. There is no better medium than truthful yet creative visual communication to make people CARE.

Joel Sartore

1. To me, nature photography could best be described as straightforward photos of plants, animals and landscapes. They can be in nice light or not, show behavior or not, but they usually don't go beyond the obvious.

Conservation photography, on the other hand, speaks more to man's hand on the planet and the need to conserve places or species. It comes in a myriad of forms. The bottom line is that these are pictures that go

to work. They allow the reader a chance to understand what's happening out in the world, even the ugly stuff.

The nature photograph shows a butterfly on a pretty flower. The conservation photograph shows the same thing, but with a bulldozer coming at it in the background. This doesn't mean there's no room for beautiful pictures, in fact we need beautiful images just as much as the issues. It does mean that the images exist for a reason; to save the Earth while we still can.

2. Absolutely. We all know what polar bears look like. Now we need to show the threats to them. There will be more and more issues arise as the human race continues to expand, dominate, heat the planet and strip it of natural resources. We need as many conservation-minded photographers as possible to document what's happening.
3. I hope it moves the masses to care. For example, most folks don't know that we're going to lose at least half of all amphibian species within the next ten years. I'm currently doing a photo project to tell folks just that. There are more conservation subjects than there are photographers at this point, however, and growing. We need to be sure that the power of the photograph is used in as many ways as possible to drive human understanding of the issues that plague species and habitats. There's no time to lose.

Kevin Schafer

1. In my view, Conservation photography is distinguished by its sense of purpose. It is photography specifically made with the goal of furthering the goals of conservation rather than simply as a record of nature's beauty, an aesthetic that informs much of conventional nature photography. There is considerable overlap, of course: the skills required for top-quality photography remain the same, and photographs take by photographers not specifically dedicated to conservation can still have enormous power.
2. In a sense, conservation photography is nothing new. Photography has always been an essential tool in conservation, illustrating what is at stake, and worth protecting. Nature magazines like Audubon and Nature Conservancy have used photography to educate and advocate, and NGOs worldwide depend on photography to get their message across and to give it impact.

One of the most dramatic pairings of photography and advocacy, however, was the influential Sierra Club book series of the 1970's and 1980's: in these books, photographers like Eliot Porter and Philip Hyde used their landscape photographs to help preserve land in the US. Robert Ketchum carried on this tradition with his book on the Tongass, which was groundbreaking because it showed not just the beauty of threatened areas, but also the realities of devastation. This was conservation photography at its best, and it is silly for us to suggest that anyone, including the ILCP, invented the idea! What we can do is promote the idea of advocacy.

Having said this, it is important to distinguish between CP as a "field" and as a "profession." Very few of us, although we are committed to conservation, can hope to make a living entirely through this specialty. For years I have given away photography to support small NGO's, gifts subsidized by my commercial work. Yet the promotion of the idea of CP can hopefully generate new interest in - and new funding sources for - photographic projects targeted specifically at promoting conservation goals.

3. I hope the renewed interest in CP will result in more people choosing to use their photographic skills in support of conservation - in their local areas and around the world.

Christian Ziegler

1. purpose, and a goal of supporting the conservation of that specific part of nature, be it an area or a species
2. surely is
3. I hope that people get more responsible, in that they can't ignore the problems, while photographing nature.

Balan Madhavan

To start with; Conservation photography is the highly evolved form of nature photography. As someone has said "All nature photographers will eventually become naturalists and all naturalists would also become nature photographers over a period of time". When you maintain a long term relationship with nature and become a witness to the great show from the front seat, you start to develop an emotional attachment to your subjects and surroundings. It is this attachment or love for his subject that prompts the photographer to become a conservationist.

And what separates the conservation photographer from the others is his/her concern on the well being of their subject and the urge to do something to protect them. It's almost like a parent's feelings towards their children. More over the conservation photographer is much more deeply involved in his work and quite often would be a specialist in his area and subject. While nature photographers are happy with great shots showing the beauty of their subjects, conservation photographers should cover all aspects of the subjects both beautiful as well as shocking.

Anyone who can afford a fortnight in Kenya could come back with great wildlife pictures, but there is no long lasting relationship or concern for the welfare of the subject. Whereas, conservation photographer takes great pains to understand the subject, the issues related to its protection, find explanations and possible solutions – all through the medium of photography. And it involves time, money and motivation. To put it simply, it's a full-time job.

I do not feel that Conservation Photography is a new branch of photography. Though the term was not in usage, many of the serious nature photographers were actively involved in conservation projects and had used their images to create awareness among the masses on environmental issues. In India, there were only a handful of photographers who used to venture into the forests in the 60's and 70's and most of them were conservationists to the core. They lacked the high-tech gear that has become a symbol of the modern-day nature photographers, but they compensated it with their in-depth knowledge of the forests and each and every animal they photographed. They were also accepted by the government officials and tribals alike and their opinion mattered in the conservation circles.

The 80's and 90's witnessed a sea-change in technology and nature photography became much easier with the arrival of auto-focus SLR cameras and supporting electronic gadgets. Nature photography became a fashion statement ! A large number of youngsters joined the bandwagon. These so-called nature photographers were more interested in winning awards and prizes in Photo Salons and Contests and when the competition became aggressive, all the values and ethics were dumped. To give an example; in the city of Bangalore in S.India, there were hundreds of nature photographers who would venture into the rural villages on every weekend looking for bird nests that they can shoot and local village boys were paid to locate nests for these amateur photographers. Some even paid money to destroy nests so that nobody else would bag that frame... I was shocked to hear about this and with the support of a few dedicated photographers and naturalists managed to ban nest photographs in photo salons in India. And most of the photographers lost interest in bird nests after the ban came into effect.

Conservation photography is of utmost importance and is a very effective tool in preaching the message of conservation. This is the era of the visual media and we should use it to the maximum benefit. The works of conservation photographers should excite the viewer and also hit him under the belt. The viewer should feel his responsibility. However, I feel that more attention should be given to the third-world and developing nations. Similarly, the effort should focus on youngsters and school children as they are the future citizens and it is easy to mould them into nature lovers at a younger age than knocking some sense into the politicians' heads. I am greatly inspired by the example shown by Ms. Belinda Wright who shot award winning films like "Land of the Tiger". After realizing the fact that tigers would vanish from the face of earth very soon, she left her career as a film maker to start the Wildlife Protection Society of India (WPSI). She has dedicated her whole life for tiger conservation and especially anti-poaching work. Her recent images of tiger skin trade in Tibet created worldwide rage and forced the Chinese authorities to take action against the traders.

Powerful visuals have always influenced human conscience. Hats off to Cristina for forming this organization that has brought the conservationist in the photographer to the forefront...

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BIOGRAPHICAL SKETCH

Carlton Ward Jr. is a conservation photographer from Tampa, Florida. He earned his bachelor's degree from Wake Forest University in 1998 where he majored in biology with minors in anthropology and environmental studies. After college, Ward interned in the photography department at the Smithsonian Institution's National Museum of Natural History. In 2000 he began graduate training in interdisciplinary ecology at the University of Florida, studying biology, anthropology and photojournalism. He was also a photography intern with the St. Petersburg Times and won the Student Portfolio of the Year at the 2001 Atlanta Photojournalism Seminar.

Ward worked for the Gabon biodiversity project with the Smithsonian Institution starting in 2001 and published *The Edge of Africa* in 2003. The Gabon project helped establish Ward's vision for combining photography with science as a tool for conservation. In 2004, he returned to Florida where he has eight generations of heritage and began projects focused on the vanishing heritage of Florida coastal fishing communities and ranchlands.

In June 2007, *Popular Photography Magazine* featured Ward as one of three photographers working to save the American wilderness based on his Florida ranchlands work which will be published in a book titled *Last Frontier* with the University Press of Florida. Ward has also joined conservationists working to protect the desert elephants of Mali and create a new national park in Andros, Bahamas. His photography and writing is regularly published in *Smithsonian*, *Africa Geographic*, *GEO*, *National Wildlife* and *Outdoor Photographer* and can be seen at www.carltonward.com.

Ward founded The Legacy Institute for Nature & Culture (LINC) in 2004 as a vehicle for conservation communications and is a founding member of the International League of Conservation Photographers.