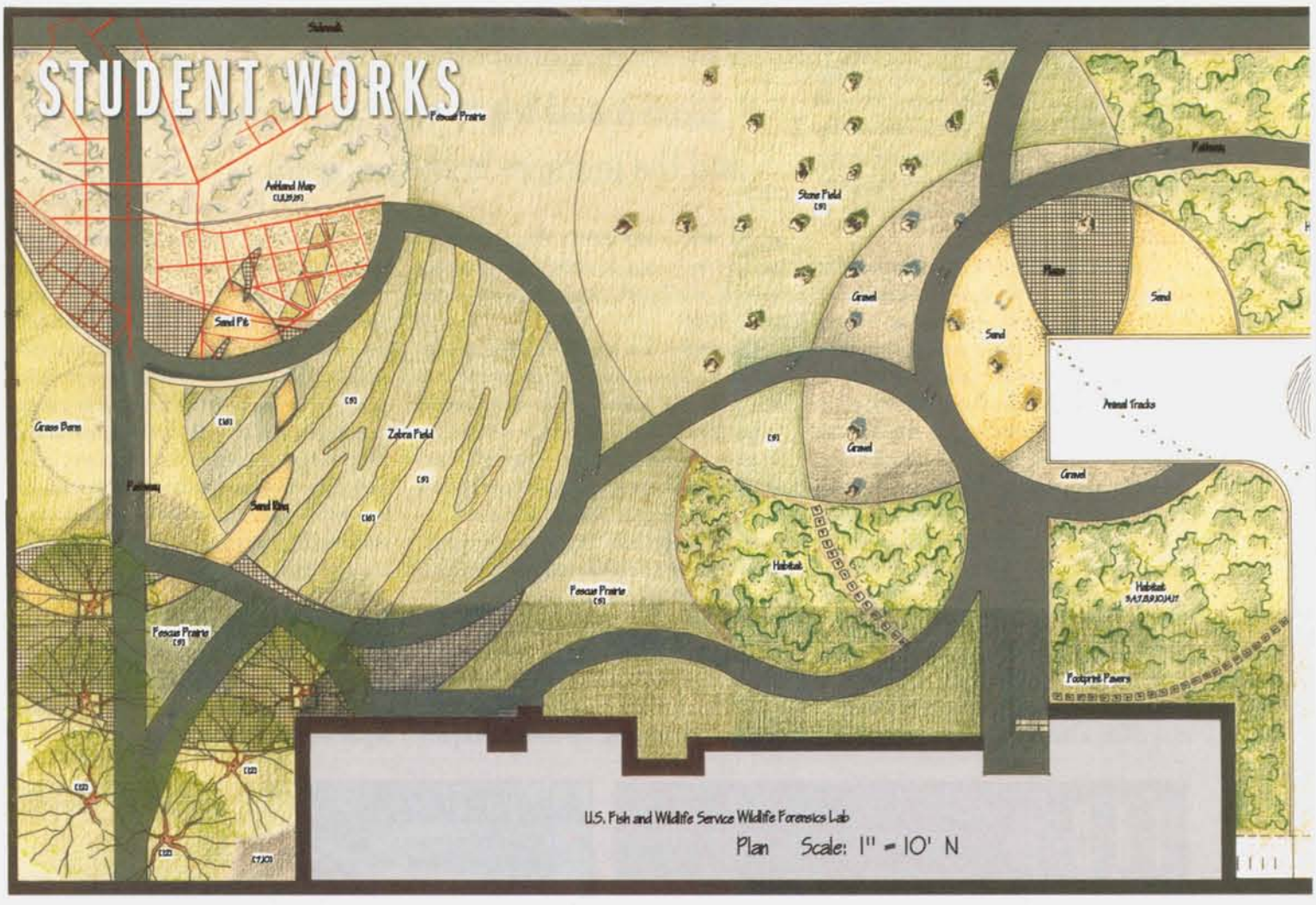


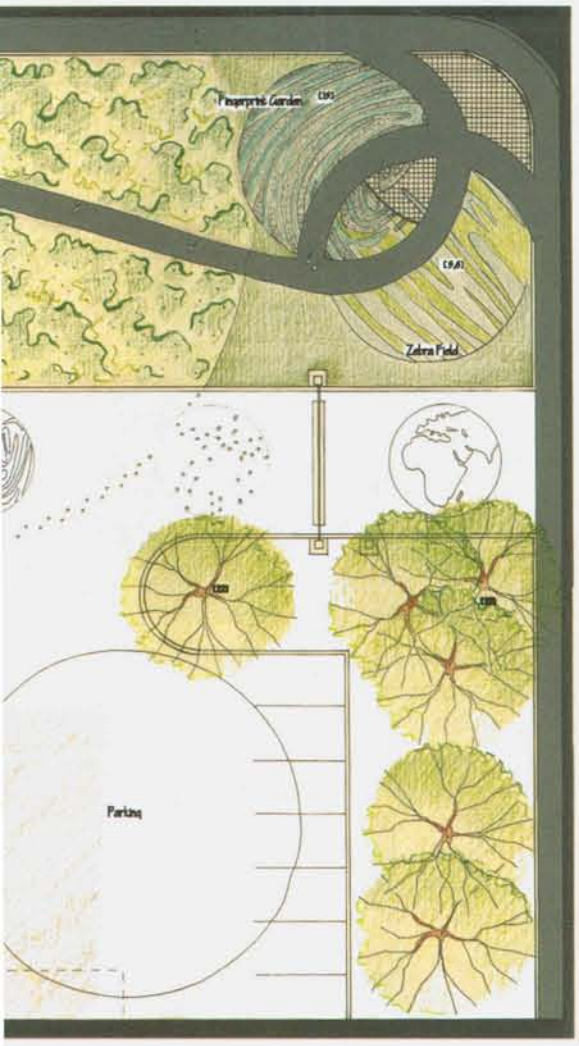
CSI: WILDLIFE A most unusual federal laboratory calls on students to help design an interpretive landscape. By Michael and Laura Murphy

NOT LONG AFTER 9/11 and the creation of the Department of Homeland Security, the U.S. Fish & Wildlife Service, along with almost all other federal agencies, was notified of the requirement that designated facilities be protected. The word came to the Fish & Wildlife Forensics Laboratory in the small southern Oregon town of Ashland from the office in Portland. The vision of an unsightly barrier around the lab was unappealing to all who knew the town and the nature of the facility and its staff of scientists, investigators, administration, and its support staff. The lab is a pair of low buildings that stands in an attractive neighborhood setting, near a school, along a rural road, adjacent to a hands-on science museum. One factor in drawing world-class scientists in the field of animal forensics and crime investigation to this singular laboratory is its location, with views across the Rogue River Valley toward the hills and mountains that surround the town.

Among the hundreds of police pathology labs in the United States and worldwide, this one is unique in that it is designed specifically to crack crimes not against humans, but against wild creatures: birds and animals taken or used in violation of international endangered species laws. Increasingly the lab is working with a broad spectrum of life from insects to dying coral reefs. With its spectrometers, scanning microscopes, gas chromatographs, and newly constructed building that houses everything from a "bug room" to a DNA analysis facility and biological containment, this is the only lab of its kind in the world, resembling in many ways the laboratories made popular by the *CSI* television series. A remarkable assemblage of scientists and sleuths works there, and these "detectives" are dispatched to all parts of the world, working with nations committed to the preservation of wildlife species and the prosecution

MELISSA OLSON, STUDENT ASLA

A design by Melissa Olson, Student ASLA, called Forensic Puzzle: Reconnecting Suspect, Victim, and Crime Scene casts humankind as the suspect, the animal kingdom as the victim, and the earth as the crime scene, each represented through the materials and forms of the garden.



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of those who violate national and international laws. Stories of its operations have appeared in magazines ranging from *Smithsonian* to *Sierra* and *Popular Science* to *National Geographic World.*

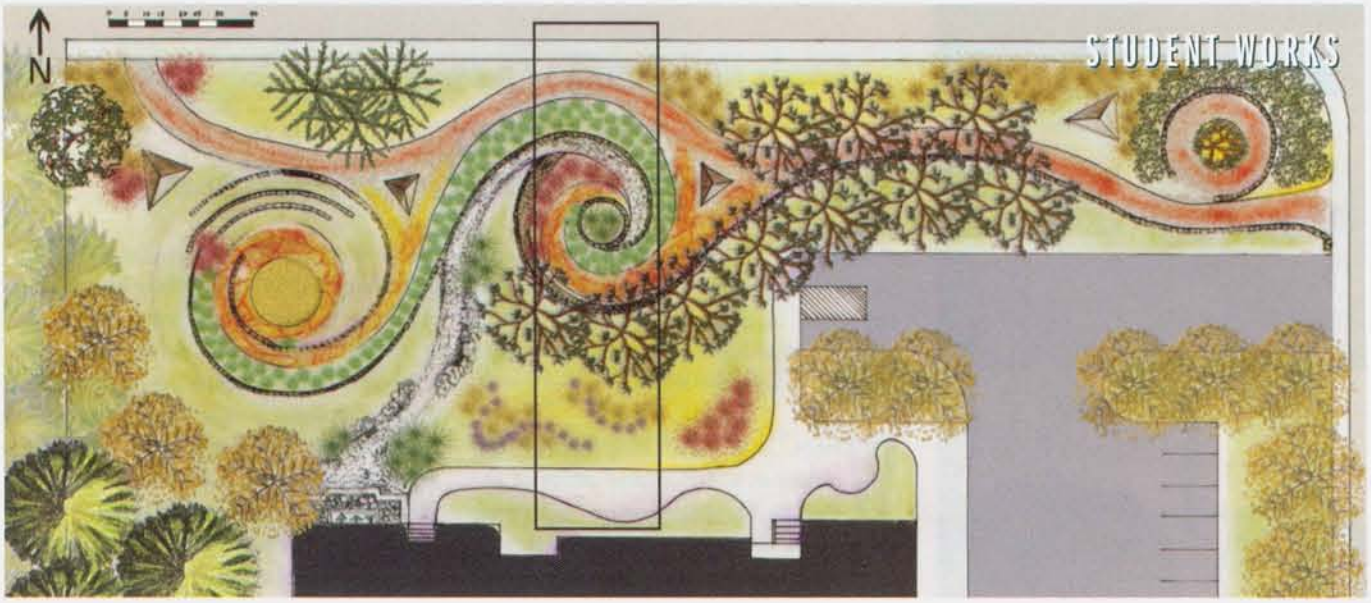
WHEN GARY BLEFGEN, a project engineer at the Portland office of the Fish & Wildlife Service, discussed creating an "anti-attack" buffer around the Ashland lab with his colleagues, interpretive specialist Matt How and landscape architect Kelly Donahue, Donahue had a possible solution. Could a landscape garden be designed that would meet the protective demands for a Level II federal facility—and be not only appealing but educational?

Donahue contacted her former professor, Kenneth Helphand, FASLA, at the University of Oregon's Department of Landscape Architecture, to get his thoughts on the subject. The idea for an interpretive science garden that met the security concerns quickly evolved between Helphand and Donahue, and they aired their idea at a discussion meeting with Fish & Wildlife staff in Portland. It was met with enthusiasm, then carried 300 miles to the south by Donahue, Helphand, How, and Blefgen, who presented it to the forensics lab professionals and planning officials of the city of Ashland. The city liked the idea of a garden, and the concept was supported by all, especially the idea of telling the story of the unusual purposes and operations of the lab.

Donahue was aware that Helphand had a history of involving students in projects beyond the scope of routine instruction, so it was not a surprise that they became immersed in this one from its earliest stages. Lab Director Ken Goddard, Mike Marxen, ASLA, and others with the Fish & Wildlife staff traveled to the university to talk to the students about their views of the interpretive garden, explaining among other things the nature and operations of the lab itself so that its story could be told in the garden

The Portland firm Nevue Ngan Associates incorporated the best of the design ideas into its professional plan, with elements of Melissa Olson's design evident.

COURTESY NEVUE NGAN ASSOCIATES



design. They wanted an educational interpretive garden first, with intrinsic defenses. The students were advised that their designs must meet the requirements of security as conveyed to the Fish & Wildlife Service. The issue was that this was to be a "people-friendly" garden while concurrently keeping at bay anyone bent on attacking the lab. As in most cases across the country, it is virtually impossible to keep individuals away from most buildings (such as post offices, federal courts, and airport terminals) but possible to stop the close approach of vehicles, friendly or otherwise. One means of solving this can be through the careful design of the hardscape, the proper design of hillocks, walking path elevations, contours, berms, reinforced interpretive bollards, and seat walls.

In a design called Snake in the Grass, *above*, by Carol Bellows, Associate ASLA, an interpretive sculpture explores the forensic triangle while a spiral path addresses issues of species extinction. A Global Forensic Puzzle Garden, *below*, by Sarah Schrock, Student ASLA, uses various puzzle pieces as wayfinders throughout the garden, engaging visitors in an interactive experience.

CAROL BELLOWS, ASSOCIATE ASLA. TOP: SARAH SCHROCK, STUDENT ASLA. BOTTOM

Leviathan Park by Nicholas Nelson used the structure of a great whale skeleton as the defining feature of the design.

The enthusiasm of the 10 advanced students was immediately evident, enlivened further by a 200-mile trip to Ashland for a rare and comprehensive visit to the lab. There they talked with scientists and technicians, saw the advanced analytical tools, and viewed collected evidence gathered from around the world, including illegally killed birds and animals preserved in various containers, some freeze-dried in whole or part: black rhino (desired for its horn), elephant (killed for its tusks), helmeted hornbill of Borneo, North American black bear (fancied for its pads and claws as ornaments and its gall bladder as an aphrodisiac and curative in Asia), leopard, and puma.

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The Forensics Garden became the main project of Helphand's design studio at the university. The parameters were presented by Fish & Wildlife staff, from which Helphand prepared the program for his students, including an overview of the project, a tentative schedule, and a list of reading references. The early brief presented by Helphand to his students was to design a garden that would "encourage visitors to the site, yet address the lab's security concerns." A list of case studies was prepared, and the students were required to examine a science garden and communicate their understandings as a case study. A list of well over a dozen case studies was given to them, ranging from The Garden of Cosmic Speculation in Scotland (Charles Jencks and Maggie Keswick) to WaveField at the FXB Aerospace Engineering Building at the University of Michigan (designed by Maya Lin).

The students began, according to Helphand, with a sketch problem that conveyed each student's concise statement of the central idea, followed by diagrams to support the concepts and design approach. This was accompanied by a site plan, or axonometric, of the design, plus any additional drawings the student chose to prepare.

The students spent the ensuing weeks working their imaginations into their drawings, aware that at the end of the quarter their final best efforts would adorn the walls of the lab. Soon thereafter Helphand and the students, along with Fish & Wildlife staff from Portland, returned to Ashland for a rare open house at the lab. The event was attended by the public, including many children, all of whom were asked to join with the laboratory staff and the local garden club to vote on their preferences among the designs. The designs that garnered the most votes were noted and they, along with the others, were returned to Portland where Fish & Wildlife authorities dealt with the realities of budget and timing, refined the many metaphorical ideas the students had

NICHOLAS NELSON

presented, then turned the project over to Portland landscape architecture firm Nevue Ngan Associates to incorporate the best of the design ideas into a near-final rendering. It was a natural for principal landscape architects Bo Nevue and Ben Ngan, who had been students of Kenneth Helphand in years past.

The students' ideas were innovative; one of the most popular among the public and lab staff was concrete "ribs" of a whale skeleton protruding from an earth berm across one of the garden paths—symbolic as well as an impediment to vehicular traffic. But funds were limited and Fish & Wildlife staff decided to focus on more cost-effective ways to relate to the theme of endangered species.

One of the key symbols of forensic science—three circles symmetrically intersecting—became the basis for the garden design. One circle represents the suspect, one represents the victim, and the third represents the crime scene. The "triangle" created by the intersection of the three circles represents the solution. This, then, became central to the garden layout and will ultimately become the area that scientists and the public will pass through and learn about the lab and its purposes and methodologies, as well as about environmental concerns overall.

The plan was reviewed and finalized by Marxen, Kim Round, Associate ASLA, and How in the Portland Fish & Wildlife office, then was successfully bid on by contractor Canyon Crest of Selma, Oregon. The contours, walls, and paths are stage one, followed by placement of irrigation, then planting in the fall, and, finally, the placement of educational exhibits designed by Fish & Wildlife staff. LAM

Michael and Laura Murphy are coauthors of eight travel books and numerous articles in national and international publications. They live in Portland, Oregon.

Resources

- U.S. Fish & Wildlife Service National Forensics Laboratory, *www.lab.fws.gov/contacts.html*