



Geocaching: More than a Game

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What does the elimination of selective availability have to do with a pack of Cub Scouts? To celebrate the removal of the U.S. Government's "fuzzy factor" in

Scouts practice the "give and take" of treasures at "I stand alone."



May of 2000, Dave Ulmer invented a new game. He hid a five-gallon bucket with a notebook, pencil, camera, and some trinkets in his home state of Oregon. Then he posted the coordinates of the cache on the Internet and challenged others armed with GPS receivers to find it. And so, geocaching was born. Caches now grace 88 countries and the number increases weekly.

That's where Cub Scouts come in. In early December 2001, in a church basement in a Boston suburb, 60 scouts learned the basics of GPS. The pack

members, ranging in ages from 6 to 12, knew quite a lot about satellites—that they are up in the sky above the earth, that they are used to distribute telephone and TV signals, that they take pictures of the earth, and that they aid in weather forecasting. Some even had a vague notion that they could help locate places on the earth. One scout offered that his father's car talked to satellites. Still, most had never seen a GPS receiver, nor did they understand that by receiving signals from GPS satellites, a handheld device could identify your position on earth and point you in the direction of a treasure.

The introductory discussion of how the receiver works and an indoor demonstration of the intersection of three spheres yielding a previously hidden geocache under a scout's

chair, prepared the scouts for an outdoor geocaching adventure. Assistant Scout Master David Lloyd was surprised at how attentive the scouts were during the lecture. "We haven't had a pack meeting that quiet in sometime, not even when we hosted a magician." Perhaps the combination of technology, the outdoors, and hidden treasures provided something for everyone's interest.

Two weeks later, 28 scouts and a dozen parents and local geocachers met in the town forest. Earlier that morning, seven caches had been placed within a half-mile of the council ring, which served as base camp. The caches were a bit less rugged than those meant to stand the beating of a year or more outdoors; these were simple disposable plastic containers used to store leftovers. Each one, about half the size of a shoebox, contained 15-20 trinkets: old U.S. and foreign coins, beads, pencils, small candies, and toy cars.

Kids and GPS

The scouts were divided into groups, and each group was given a GPS with the coordinates of the seven caches stored inside. Their adult helpers carried a general vicinity map showing approximate cache locations as well as a search order to prevent traffic jams at the hiding places. The toughest cache

to find, the adult helpers reported, was the first. Getting the scouts to hold the GPS in front of them and then to follow the arrow was tricky. Furthermore, the scouts preferred to stand still to determine which way to go, which prevented some of the GPS mod-



A scout follows the GPS receiver's arrow toward the cache, while using a stick to point the way for his group.



A scout successfully finds "Down through the chimney" in the town forest



els from registering which direction they were facing. That, in turn, provided "wrong" information. The other challenge was tree cover. Though most of the hiding places were along an old fire road, there were times when the GPS receivers could not track the three satellites necessary to provide direction. But once a group got the hang of using GPS, there was quite a bit of excitement.

Clues and Trinkets

Each scout had the chance to hold the GPS receiver and lead his friends toward a cache. He'd call out the distance to the cache first in miles, then, as the group got closer, in feet. Each cache included a clever name with a "clue" to help the new geocachers find the goods. At "hot tin roof" an old metal barrel used to cook the Thanksgiving turkey covered the cache. At "stairway to heaven" the scouts had to climb some wooden steps secured along a small trail to find the cache. Once a cache was found, the finder would open it up, and then get a bit of adult help to assure that the geocaching tradition of "put something in, take something

out" was followed. Each scout was given two trinkets before he set out, and he was allowed to leave with several more at the end of the day (see Figure 3).

Whereas young geocachers enjoy the hunt for treasure, many adult geocachers enjoy the hunt itself. Experienced geocachers agree that the game has taken them to many public lands they'd otherwise never visit. Few geocachers in Massachusetts had set foot in Lynn Woods Reservation, the second largest municipally-owned park in the United States. But a geocache called "Lynn Woods" enticed many of them up to a stone tower and piqued their interest in a nearby cave. A cache in Newport, Rhode Island introduced many to one of the great kite-flying locations in the east. These permanent caches are among several hundred in New England.

Each cache listed at www.geocaching.com is named, and given two difficulty ratings: one describes how hard the cache is to find, the other measures the difficulty of terrain. The terrain information is especially helpful for geocaching families with youngsters and others who prefer level ground. There are hints and an online log of those who have visited. Many cache visitors also sign the cache's hardcopy logbook and take a snapshot with the disposable camera included in the cache itself. The photos are sometimes scanned and made available on the Web as well.

Adults who like puzzles sometimes add to the complexity of a cache. More than one cache is accessible only at low tide. Another is actually underwater, re-

quiring scuba gear and an underwater compass. Still others challenge the mind. One in northern Massachusetts, called "Grave Calculations," lies just outside a cemetery. Retrieving the coordinates of the cache requires a visit to several headstones to gather key dates. These are added, subtracted and combined to provide the final location coordinates. Another cache provides two pairs of coordinates, each defining a line. The cache lies at the intersection. There are several ways to solve that puzzle. One of the newest caches requires a staff cut to the precise height for the day of the visit. The sun's rays and a treasure map help point the way to "Raiders of the Lost Geocache."

High-tech Treasure Hunts

Geocaching, letterboxing (a intriguing sport that combines navigational skills and rubber stamp identifiers in an outdoor "treasure hunt"-style quest), and the other exploration sports are experiencing quite a bit of popularity. Geocaching has certainly benefitted from the variety of inexpensive GPS devices now on the market. Retailers looking for new ways to encourage GPS sales have held in-store meetings for budding geocachers. Those who have GPS receivers are looking for

A geocacher uses a compass and staff to find the coordinates for "Raiders of the Lost Geocache."





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new ways to use them and perhaps an incentive to learn more about them.

Geocachers cite the “remote connections” to others via a cache. They are able to share a place and hopefully a smile with someone whom they do not know. One geocacher, whose pen name is Sluggo, described himself as “a little bit Sherlock Holmes, a little bit Santa Claus, and a lot of Boo Radley,” (the latter being a character in *To Kill a Mockingbird*). Sluggo goes on to comment, “a cache (whether hiding or finding) has a ‘Time Capsule’ aspect about it. It is very much like a time capsule, but only over geospatial separation rather than time separation.” Said another devotee, Clangedin, “I

feel like a modern pirate looking for buried treasure.”

All of these games feed the need to get out into the great outdoors. Many lone and family seekers find them a great excuse to get outside. Other travelers or explorers enjoy tracking down new sites.

These games can play a role in educating the next generation about mapping and mapping technology. The geocaching website includes online maps of each geocache site, as well as tools to find those nearby. Programming a GPS raises issues of map projections, and many cachers use online or hardcopy topographic maps to preview terrain. Letterboxing highlights more traditional

methods of wayfinding, using landmarks and the human body as a measuring device. The Degree Confluence Project attaches a “real” place to those intersections on the globe, and if nothing else, reveals them to be just that, places. ▼

(Photos by the author, and geocachers John and Buddy. Special thanks to the Scout Masters and scouts of Cub Scout Pack 702, Reading, Massachusetts.)

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For more information on geocaching, visit www.geocaching.org.
For information other exploration games, check out the following:

The Armchair Treasure Hunt Club

Founded in 1992, this group in England publishes a regular newsletter with stories that provide clues to buried treasure. The first hunt required a full two years before the treasure, a bronze statue, was unearthed. For more information, visit The Armchair Treasure Hunt Club at www.treasureclub.net.

Degree Confluence Project

February 1996 saw the kickoff of Alex Jarrett’s Degree Confluence Project. The idea was to photograph the locations where major lines of longitude and latitude meet, nearly 12,000 of them, across the globe. With low-priced GPS receivers and the prevalence of digital cameras, the search is easier now than it was at the outset. Each report from a confluence includes a series of photographs and a journey report. The confluence website reports that roughly 10% of the primary confluences have been documented. For more information, visit the Degree Confluence Project at www.confluence.org.

Letterboxing

Far older than geocaching, but equally fulfilling to the explorer, is letterboxing. The game started in the moors of Dartmoor, in England 1854. There is still a hide-and-seek aspect, but letterboxing depends on clues, compass bearings, triangulation, and map reading to guide the seeker. Natural and manmade landmarks are used, and good old-fashioned pace counting. Letterboxes contain only two things: a small logbook and a rubber stamp. Letterbox seekers carry a notebook, a personal stamp, a pen or pencil, and a stamp pad. When the box is found, the seeker writes a message in the letterbox’s logbook, stamps the logbook with his or her stamp, and then uses the box’s stamp to stamp his or her own notebook. These stamps are sometimes store-bought, but the tradition leans toward carving one’s own from a block eraser.

Letterboxes have a pleasant low-tech appeal and often feature stamps of animals, plants or literature-inspired scenes. Some require serious research such as finding the height of a mountain (which alas may have several values in different reference books) or determining the year in which Edgar Allen Poe passed away. For more information, visit www.letterboxing.org.

Orienteering

Orienteering is a bit more active than the other hide-and-seek sports. Participants use a map and compass to plan and execute a route to visit several control points noted on the map. The one who visits each one, in order, in the fastest time, wins. A bit like the merging of motion and chess, it’s rarely the fastest who prevail. And, in addition to orienteering on foot, called foot-orienteering, there are versions on skis and mountain bikes, and trail orienteering for those with disabilities. For more information, visit the International Orienteering Organization at www.orienteering.org.