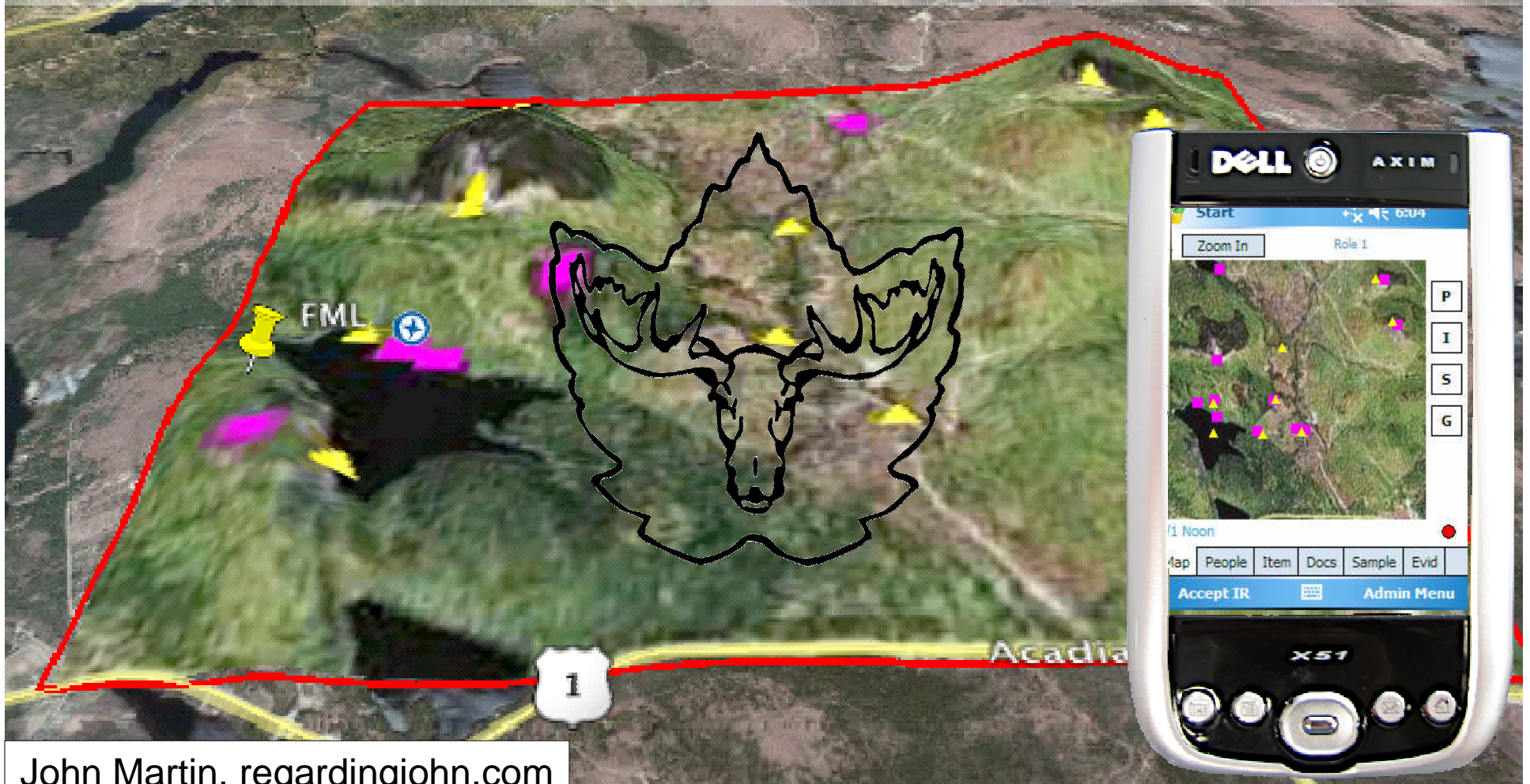


# *Designing the Mystery Trip*

*What happened when kids  
designed their own AR Adventure*



AR situates game play in the physical place surrounding the body.

Crappy PDA graphics are supplemented by amazing sensory-rich effects (sun, wind, rain, bugs, cramps, etc.) unparalleled in other types of video games.



John Martin, regardingjohn.com

Photo by Mystery Trip 2008 Group

# Original Plan

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- 3-5 campers (boys age 10-16)
- 4-day hiking trip over a 16 square mile area.
- play an AR game to understand affordances and limitations .
- critique and redesign game, adding own sub-culture.
- Group-collaborated design naturally causes a game narrative portraying community narratives on three levels:
  - camp history
  - current population
  - trip group
- Freedom for inside jokes, community-building, puzzle creation -- slightly competitive.

## Add:

- **Pic of HP iPaq 5455 and GPS unit**

# Special Concerns

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## **Technology**

- Battery Life (4-day trip)
- Rain, Lake, Kids (bad for technology)

## **Location**

- No laptops on trail (hard to fix things)
- No electricity in camp to support electronics

## **Culture**

- Can't "take over" trip (not a video game camp)
- Can't be too "schooly" (not an academic camp)

## **Safety**

- Single-role games (so they stick together)

# Results: 2005

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## First Year (2005)

- No hardware or software
- Didn't understand task
- Created crude character-sketch
- I turned it into "Wild Moose" in Fall 2005

Add: Pic of "Wild Moose"

# Results: 2006

---

## Second Year (2006)

- Hardware and software problems
- Too different from regular trip (acculturated to status quo)
- First group wrote “Mitchville: Where the War Began” -- I put it in game editor
- No significant changes suggested

**Add: Pic of “Mitchville”**

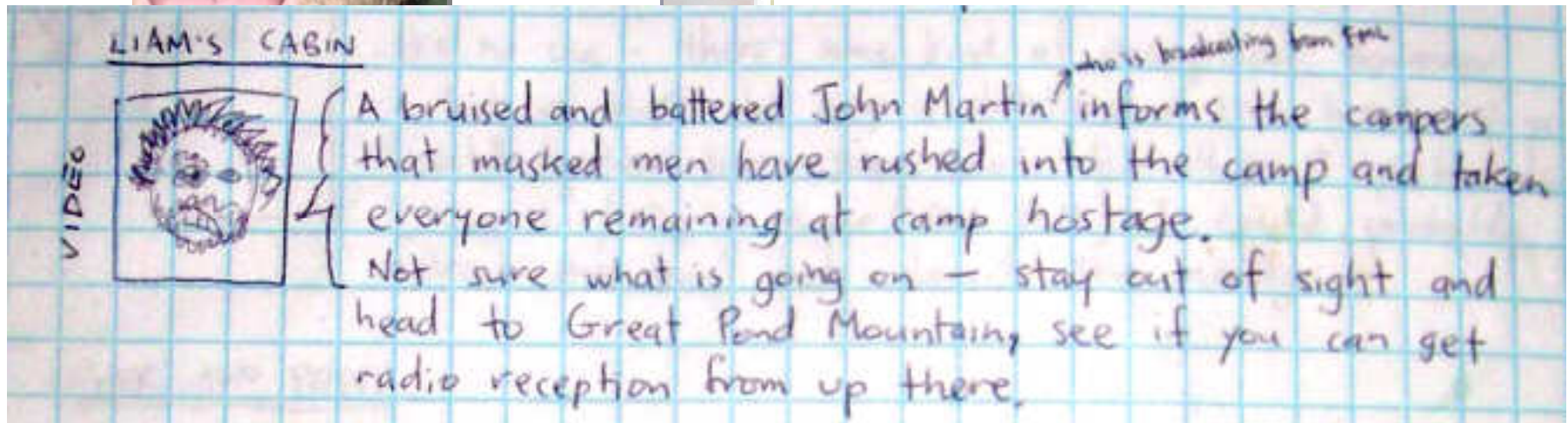
# Sample Encounter

From "Mitchville:  
Where the War Began"



**Description:** You feel a buzzing in your backpack. You take out your Communicator, and tune in. It's John Martin. His face is scratched and bloody, battered and bruised.

**Interview:** Whoa! I didn't think I'd get you! This Communicator is whacked pretty badly. Hello?



... Pond Mountain and I'll try to communicate with

John Martin, regardingjohn.com

# Results: 2007

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## Third Year (2007)

- Two groups played the game
- No significant changes suggested

Add: ?

# Game Findings

*Trails are tunnels.*

John Martin, [regardingjohn.com](http://regardingjohn.com)

Photo by Mystery Trip 2008 Group

## Game Findings

*Off-trail travel requires more step-by-step attention – a higher cognitive load than trails require.*



# Game Findings

*Off-trail travel  
fosters more group  
cooperation.*

John Martin, regardingjohn.com

Photo by Mystery Trip 2008 Group

# Game Findings

*They like  
the way real  
things are  
put in the  
game.*

John Martin, regardingjohn.com

Photo by Mystery Trip 2008 Group

## Game Findings

*They look at the map more because the PDA screen is too small for navigation.*

John Martin, regardingjohn.com

Photo by Mystery Trip 2008 Group

# Design Findings

*Design sessions are too much like school.*



John Martin, regardingjohn.com

Photo by Mystery Trip 2008 Group

# Design Findings

---

*They needed to play a game before designing one.*

## **A. Working Games**

In order to play an AR game, you need one to play. It becomes a chicken-and-egg thing with the lion's share of work going to the first ones to make a game.

# Design Findings

---

*They needed to play a game before designing one.*

## ***B. Experience***

You need to have some experience with an AR game in order to design it. The more AR games you've played, the more fully you're able to understand its capabilities and limitations.

The more games (in general, not just AR) that you've played, the more you can import ideas (quests, puzzles, NPCs, etc.) from them.

# Design Findings

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## ***Working Games***

In order to play an AR game, you need one to play. It becomes a chicken-and-egg thing with the lion's share of work going to the first ones to make a game.

# Solution

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## ***Seed Game***

I created a “seed” game that sent them hiking around the area, and included a number of camp jokes that I felt they’d enjoy. It turned out to be more than enough to get some great ideas, and they abandoned it in order to start exploring for their game.

**Add:**

**•Pic of “Wild Moose” map**

# Solution

---

## ***Iterative Game***

They then abandoned the seed game once they got the idea, and started creating their own game.

**Add:  
Quotes on designing by  
Carter, Aaron, Dave, etc.**

# Design Findings

*They liked making waypoints.*

## **Mobile Access to Technology**

Campers loved making waypoints while hiking.

# Design Findings

*They liked exploring and mapping out the land for future campers.*

## **Community Involvement**

“It was neat to stop and map out the area for the camp because they’ll use it on the next trip” (Ollie)

They loved the idea that they were participating in the camp community by \*doing something\* for the future.

# Design Findings

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## *Working Hardware*

**Technical Difficulties:** It takes some preparation to send a Bluetooth-connected GPS/PDA combination that was designed to be docked and charged each night out with 10-16 year old boys on a 4-day back-country hiking trip is tricky.

**Ruggedized:** Swimming with Bluetooth GPS in pocket.

**Battery life:** (esp. with “Bubblebreaker” tournaments at night).

**GPS signal:** Bluetooth and PDA-integrated GPS are not as robust as the Outdoor models.

# Evolving Solutions

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## *Working Hardware*

**Add:**

- 3 Pharos units
- external battery unit



Hewlett-Packard  
iPaq 4355  
Pocket PC



OtterBox Armor  
2600 Case



GlobalSat BT-388  
Bluetooth  
GPS



Magellan  
eXplorist 400  
GPS

# Design Findings

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## Enthusiasm in droves

**Too “Schooly”:** For my campers, there was no way I could logistically get them on the actual Game Editor, so I sent them with a “Game Design Journal” and asked them to write their ideas in it. That didn’t work. The counselor said it was too much like school for them: “They were keen to talk about the game, and had all sorts of ideas when they were hiking, but when it came down to documenting the ideas, they just weren’t interested” (Jet).

**Adult Guidance:** The counselor’s enthusiasm on that trip was enough to get them to produce a game, but the work of writing things down, and connecting their ideas was primarily on his shoulders.

# Design Findings

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## Competition?

Counselor 1: [The first 2006] group came up with that whole story and that was really good. That was pretty impressive, I don't know if I could top that.

# Design Findings

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**Learning Curve:** Design is frustrating, and unless the structures and mechanisms for designing them are foolproof and seamlessly integrated to match the designers' learning preferences, they'll need a great deal of enthusiasm.

**Too Complex:** Keep it Simple

Advanced users, if and when they get into it, will want to move beyond the template, dig under the hood, and customize the game beyond what the template allows. We follow a similar progression in other areas of design (dot-to-dot, model-making, paint-by-number, etc.), so it makes sense here too.

# Solution Hypothesis

## Template Structures

- coding HTML vs. MySpace
- short story vs. Mad Lib.

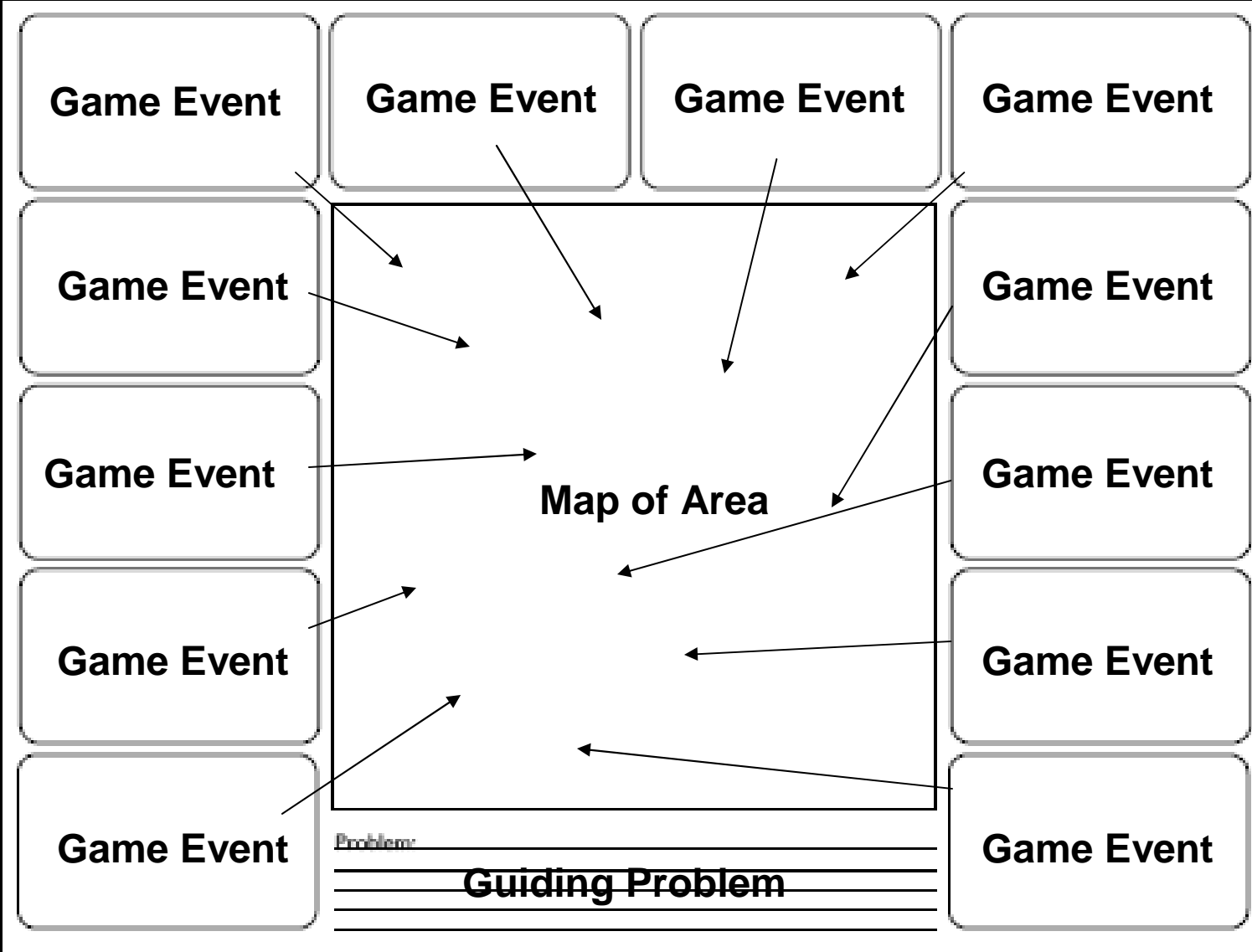
**MAD LIBS**  
**HOW TO FIND FOOD AND WATER IN THE JUNGLE**

Taking a trip to an exotic jungle can be very free. But what happens if a/an bat steals all of your food and water? Instead of getting stuck eating vultures and drinking Dr. Spas, you'll need to find food and water super! Look for steak or a/an steak tree and reach it down. Scoop out the center of the tree's bar; the roots will then refill the stump with 2 cubes for about 75 days. You can also look for a river or pharmacy, but make sure it's a freshwater stream or else you will get noun and shout Magdalene! When you get hungry, you can look for visitors and lions under logs or tree stumps. Pinch their tails off, and then take a big bite. Bon appétit!

From THE MAD LIBS® WORST-CASE SCENARIO® SURVIVAL HANDBOOK: TRAVEL. Based on the book The Worst-Case Scenario Survival Handbook: Travel © 2001 by Quirk Productions, Inc. • Copyright © 2004 by Price Stern Sloan, a division of Penguin Young Readers Group, 345 Hudson Street, New York, New York 10014.

John Martin, regardingjohn.com

# Solution: Simple Template



# Design Findings

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## **No time or culture to support design sessions**

On FML trips, we don't have a lot of time or the culture for structured reflection. They hike all day, set up their campsite, start making dinner (a long 3-course process), and then it's dark. Trying to shoehorn a design session in is difficult.

# Solution?

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**Mobile, Piecemeal Design:** Breaking the Mystery Trip design process into smaller, mobile bits might work better to address these issues

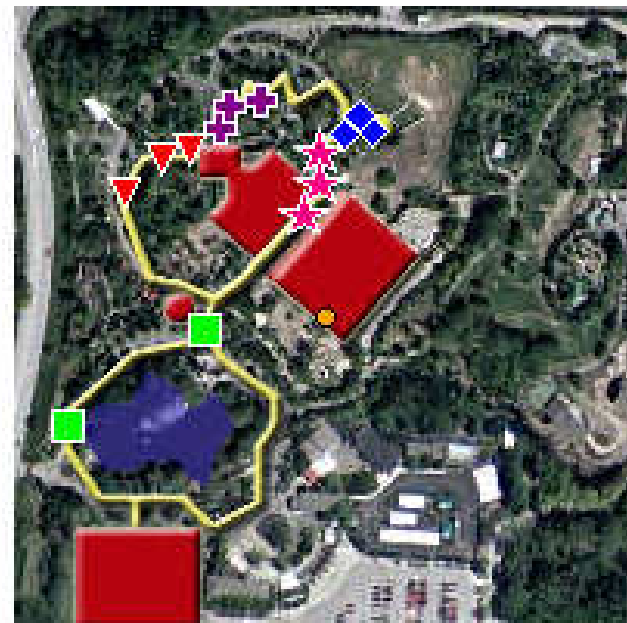
# Mobile Game Design (Remote Editor)

## LEVERAGE: Immediate Gratification

The Remote Editor offers simplified games and game input, allowing campers to quickly come up with a \*working game\* in the field that they can test on the trip.

All Roles / No Team  
All Chapters

(100,100) 



John Martin, [regardingjohn.com](http://regardingjohn.com)

# Mobile Game Design (Remote Editor)

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## LEVERAGE:

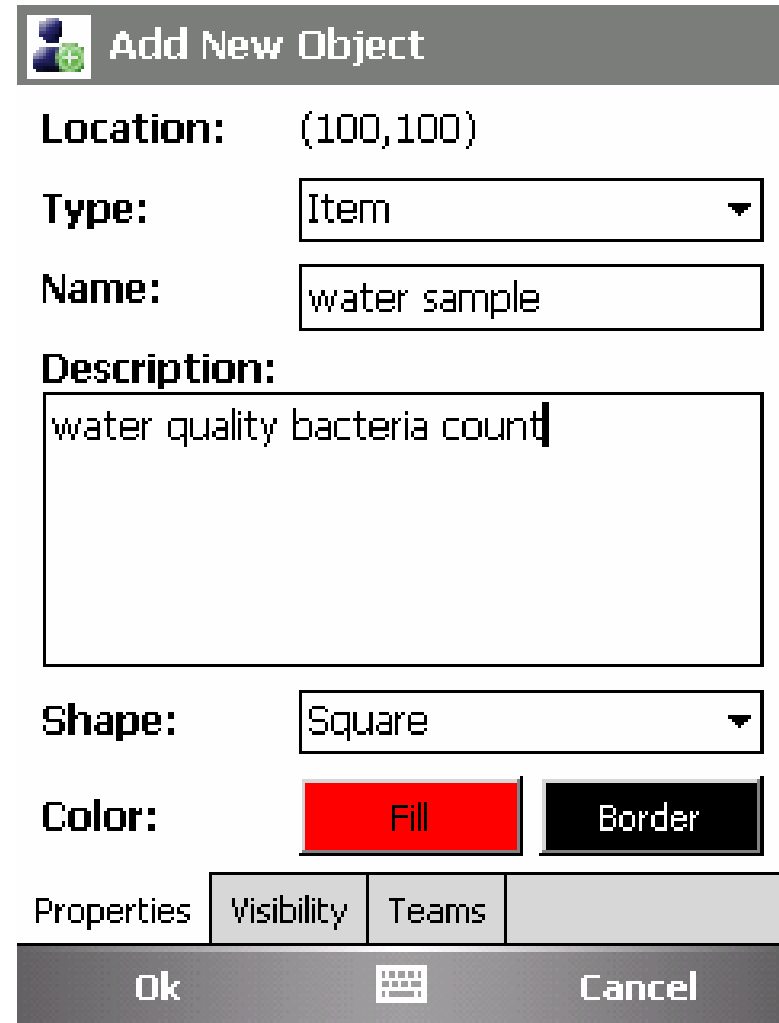
### Quick Iterations

Immediate feedback allows for as many design iterations as they have time and energy for.

## LEVERAGE:

### Tangible Results

Kids like to make things that work. No need to write out lengthy game plans and rely on someone else (me) to interpret and make into a working game.



The screenshot shows a mobile application interface for adding a new object. At the top is a grey header with a person icon and the text 'Add New Object'. Below this are several input fields: 'Location:' with the value '(100,100)', 'Type:' with a dropdown menu showing 'Item', and 'Name:' with a text box containing 'water sample'. A 'Description:' label is followed by a large text area containing 'water quality bacteria count'. Below the description are 'Shape:' and 'Color:' options. 'Shape:' has a dropdown menu showing 'Square'. 'Color:' has two buttons: a red 'Fill' button and a black 'Border' button. At the bottom, there are four tabs: 'Properties', 'Visibility', 'Teams', and an empty tab. The bottom-most bar contains 'Ok', a keyboard icon, and 'Cancel'.

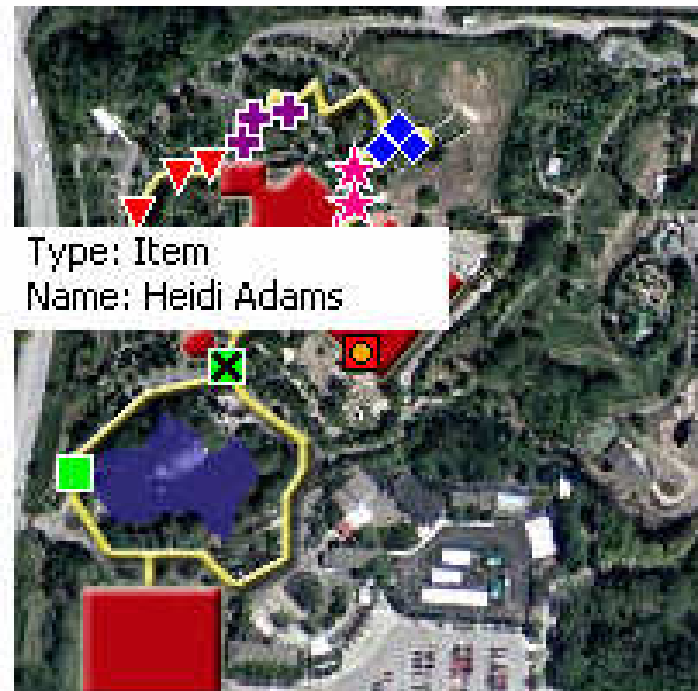
# Issues in Design

## LEVERAGE: Mini-Games

For camp purposes, this offers better opportunities for interested campers and counselors to make simple, short games in camp, during their free time.

All Roles / No Team  
All Chapters

(100,100)



John Martin, regardingjohn.com

# Next Week...

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## **Planned Research:**

When I get back to camp I'll start sending out the Remote Editor.

John Martin, [regardingjohn@gmail.com](mailto:regardingjohn@gmail.com)