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Game Design

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Ghost Town: building a town toward a goal using skill and chance

### **Problem statement and brainstorming**

When brainstorming, I started by coming up with a problem, or possible things that could be fun with a dice game. I started listing games that I liked that had dice in it. Games that centered on dice like Yahtzee, or games that used dice for movement like Monopoly, or games that used dice to gather resources like Settlers of Catan.

I started to think about what those games used the dice for, seeing if I could combine those features together, or pick and choose ones that worked well together. I started to gravitate toward ideas that used the dice to gather resources to build things like Settlers. I generated ideas that had different themes, but generally had the same idea. Using the dice, a player rolls to gather money to build a town.

I was really excited about the idea of building something with money generated from dice rolls. I liked the idea that there was some skill in the type of building that a player could choose to build. A way a person could build a town that could make the town act differently. The game was also based in chance with the roll of the dice giving money to the player. The difficulty I saw was balancing between these chance events and the player's ability to build an efficient town.

Out of this came many questions. How does the player win (what is their goal)? What sort of interactions can the players have with each other? What do the buildings do, and do those functions get the player toward their goal?

The goal I came up with was similar to many other building games. The first person to 10 victory points wins. To go with the theme, the player would have to get 10 townspeople in their town hall.

**First iteration — Brother, Me, 2.2.2008, 7:30m**

**First rule set — see Appendix B**

**Solving the problem:** The first problem that I tried to solve was to make an entertaining dice game that had its core interaction be building a town from scratch, and have the goal to be the first to 10 town's people in your town hall.

The first version of the game had 9 unique buildings and used 2 dice to generate money. Money and buildings were made of paper, and was roughly the same size, so the two would get confused easily. The money was also very slow to come. Players would get very little money per turn, and would only be able to build one building every 4 or 5 turns. The first game was not finished, and only 3 buildings were built.

**What Happened:** This iteration had no player interaction, and the players were just waiting for other players to finish their turn. The builds that were built had the same amount of people, so if the game had gone on, the first person to build a building would generally be the one who would win the game.

It was also suggested to have 3d dimensional townspeople. After trying to get tokens in at a later date, I decided to go with a flat object with a picture on it instead. If the chosen container were bigger, possibly in a fictitious collector's edition there would be miniatures for town's people.

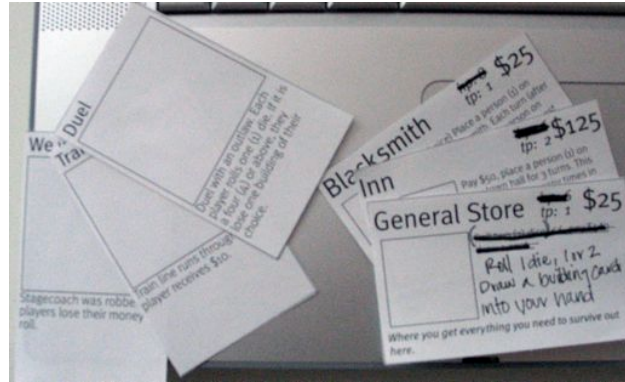
**Conclusion and further refinement ideas:** The core mechanic that I wanted was there, but it seemed like a superficial game, so I decided to add a general effect card. This "action card" would act on all players at the beginning of each of their turns. This card was supposed to randomize the construction of each person's buildings. It was also meant to randomize the leader as well, hoping that it could hamper those far in the lead.

**Second iteration — Nichole, Carlos, Karin, Alyson, 2.3.2008, 10 pm.**

**Solving the problem:** This iteration tried to test the effect of action cards on the game. I had wanted the cards to function as randomizers, and as an equalizing measure. Instead of moving the game more toward a completed state, these cards

actually made the game more complicated. The players become more disinterested, and began to play with the pieces, and not in the way the game intended.

**What Happened:** Players immediately became bored, the action cards slowed and reversed the game play, and 2 dice don't function as a quick way to get money. But the added chips and more theming made them excited to play it when I brought it out.



Each player had trouble understanding what each card did, and felt that the payoff for reading the cards was not enough compared to what little then actually did for them. As temporary towns people, I used miniature dice. They started playing with them, instead of paying attention to what other players were doing. I had thought that an outside force acting on someone else would generate excitement, but adding interactions like attacking other players may keep the attention for longer.

Action cards were added to make the player act against something in the game, instead of just progressing without check. This check was to fill the void that a player would just race to get the cheapest builds out, and not really pay attention to what they could do, just wanting the townspeople on their town hall. These action cards turned out to be too hard on the player, often removing their only building that they just spent the money they saved up for the past 5 turns. The action cards could have been toned down, but since they just added complexity, and simplification was greatly needed they were removed. Putting the chance of damage into other player's hands would increase the attention given to another player during their turn. This could also grow into a way of observing another player's strategy.

Rolling 2 dice was meant to average the player 7 dollars a turn, while most buildings would take 30-50 to build. This math makes it extremely difficult to have a turn where you can actually do something. A player would save up all their money,

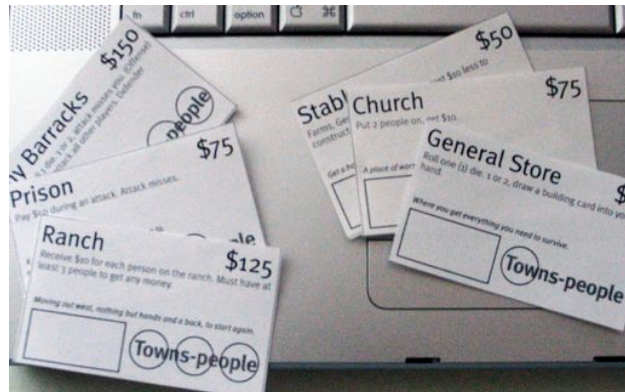
buy a building with their entire savings, only to have it destroyed by an action card at the beginning of their next turn. It was suggested that the number be multiplied, but since that would get into more than simple math, I decided to just go back to 1 die for all chance rolls, and multiply the first roll by 10 to decide on money.

All the players enjoyed the theming of the poker chips, and once they knew it was going to be western themed, they felt that the poker chips were a perfect fit. They enjoyed the feel of having something that normally functions as an endogenous artifact, which represents a real world commodity. These chips have no external meaning, but because the idea of poker chips do they gain a certain amount of excitement.

**Conclusion and further refinement ideas:** The first thing to go in the next iteration would be to remove the artifact cards. They just over complicated and drew out the game to no end. The next thing would be to simplify the text on the buildings, and add some sort of player interaction. Adding 1 or 2 attacking and defending builds could test the level of player interaction that could result from player on player actions. Also cutting the dice roll down to one and using that as the monetary gain would decrease the amount of math the player has to do.

**Third iteration — Katelyn, Carlos, Oscar, 2.4.2008, 6 pm.**

**Solving the problem:** The first problem I wanted to fix after removing the action cards was to see if rolling one die would resolve the slow money gain that the game was suffering from. I also included 1 attacking and 1 defending building to see if the players were interested in attacking each other.



**What Happened:** The game went on as long as I had wished the first one did (about 20 min). The players were still confused as to which buildings did what. But

the inclusion of the attacking buildings added the increased player interaction I wanted.

The building cards were complex and involved too many special cases for the players to follow. A suggestion was made to change the rolling only rolling 1 die for everything, and keeping the probability simple.

The person who actually was able to build an attacking building coincidentally won the game. He was also the first to go, but the attacking building had nothing to do with his winning. The probability of actually connecting an attack was still too high. Each attack required a less than 1 in 8 chance of connecting. This needed to be fixed for later versions.

The players seemed more engaged in what others were doing once they realized that there were attacking buildings. They felt they were vulnerable, and sought out protection. But because there were only 4 defensive buildings in the deck, it was rare for someone to be able to put on out.

**Conclusion and further refinement ideas:** Adding more attacking/defending builds could increase player interaction and increase the fun of the game. Decreasing the complexity of the cards more will help the game move faster.

**Fourth iteration — Alyson, Andy, Lisa, 2.5.2008, 11:30 am.**

**Solving the problem:** Using the same game as before, but editing the cards to read simpler, and pay out more money with their abilities I was able to see what the players did with the extra money they had. Changing two buildings that had no intrinsic attacking idea threw off the theming, but it allowed me to test to see whether more attacking buildings was the way to go. I added the idea that the building would not function unless it had its townspeople on the building.

**What Happened:** By just changing small things, I was able to tweak the existing game to better function in a direction it appeared it needed to go. Changing little things like the way the farm pays out to the player, or making a church attack, I was able to get a better idea that attacking was necessary, and that the more the buildings gave the player money to pump out more buildings was better.

The players were able to move townspeople whenever they wanted. This made the end game almost non-existent. I felt that the townspeople were the players and they should be able to do whatever they wanted with them. This didn't fix the fact that the end game, the very last push for the goal, the part that is supposed to make the trailing players push harder for the end, was still just as short and pointless as before. A solution for this would be to limit the amount of people the player could move in one turn.

**Conclusion and further refinement:** Lots of good advice about specific building function will lead to a simpler wording for each building, as well as a simpler function for that building. This over arching simplification will lead the non-attacking buildings to gain a more supportive role to the upkeep of the attacking buildings. Because there are still only a few attacking buildings, attacking can become more of a skill/strategy maker.

The idea of exposing the towns people while they make the building, and to make it function could solve the issue of random building removal. A player can only slowly choose which buildings they want to use, and which ones they would rather have go towards the end goal. This adds a built in vulnerability to the players, and they must adapt to protect themselves. This is another reason why more attacking and defending buildings are needed.

**Fifth iteration — Me, 2.7.2008, 11:30 pm.**

**Solving the problem:** trying to figure out a random set of buildings that a person could get. I was looking to see if there was a good balance of money flow, as well as the buildings were priced so that each player could do something every turn.

**What Happened:** The buildings seemed to be very well priced, and using an average of the price, the buildings that gave the player money every turn showed to balance the risk of rolling a low number.

**Conclusion and further refinement:** Unable to test the viability of the number of attacking buildings added, a real game is needed to test the fullness of the offense/defense.

**Sixth iteration — Me, 2.9.2008, 11:30 am.**

**Solving the problem:** Unable to test last night, so I decided to try a dry run of placing all 4 players out, and playing through each player myself. I realized that there were not enough cards to get the players through an entire game when all players are of equal skill.

**What Happened:** Playing all the positions myself, without one strategy over another, playing safe each of the players ran out of buildings to build.

**Conclusion and further refinement:** By adding more buildings to the deck, ones with functions that are similar to existing buildings I could expand the deck, while keeping the game play the same.

**Seventh iteration — Katelyn, Carlos, Oscar, Me, 2.10.2008, 3:30 pm.**

**Solving the problem:** Adding a few more attacking buildings should balance the game more towards the idea that each building should be a target for another player. I wanted to see if the attacking would increase the rivalry, and make the players want to get to the winning goal as fast as they could.

**What Happened:** Using the current version of the game, I asked specific questions about what buildings stood out, which ones were the most useful. These questions were geared at normalizing the buildings. Toning down the ones that were too powerful, and bringing up the ones that were useless.

All the players felt that attacking was lacking, and needed to be more of a chance to hit. This could introduce a strategy of always having multiple attacking and defending buildings out at once, as well as a stock of resource gathering buildings to supplement.

**Conclusion and further refinement:** The moving one set of towns people per turn has slowed down the game, but also increase the end game. Instead of players just winning on their turn, other players can see that they are getting close, and have a chance to stop them. This sort of hunting and gathering could result in a well balances and interesting set of interactions that the player has the opportunity of using when they see they need to.

This all gives the player the choice. There may be a level of chance in everything the player does, but that chance is all based on how they understand the other players. They need to know how well they can mislead the other players, and they need to know where they can move to become proactive at the right moment to cripple the other player.

**Eighth iteration — Brother, Me, 2.10.2008, 3:30 pm.**

**Solving the problem:** This was the first time playing 2-player ability of the game. I wanted to see if the game was still playable with a limited amount of people.

**What Happened:** Seeing the game from the very beginning, my brother pointed out that it had changed to become more like a sim game. The idea of building against a clock is defiantly something that I was trying to get at with the original idea.



Moving the townspeople defiantly increased the end game, and made the victory seeable before it was reached. A possible card to “cheat” that function would give a player that much more advantage/creation-or-a-target that could increase the rivalry between the two sides.

**Conclusion and further refinement:** My brother being the visual person he is was upset that they buildings had not be updated to look more like what the final product was going to look like. A concerted effort must go into the visual theming.

**Ninth iteration — Me, 2.11.2008, 11 am.**

**Solving the problem:** I wanted to see how many attacking buildings would come up in the course of a player drawing thru the game. By drawing through a couple of games, and shuffling the deck after each dry run could give me an idea of the commonality of the attacking/defensive buildings.

**What Happened:** I started by putting 4 piles of cards, and drawing for each player. By sheer chance, all players did not receive an attacking card until the 2<sup>nd</sup>

turn around. This means that by the time each one does get an attacking card, they already have something out there that they need to protect. By adding more attacking buildings, the player can be given that choice; they could either build up a resource harvesting city, and get to the victory sooner, or they could play it safe and build up some defenses before going for the win.

Going through and giving each building a type on the computer, I could see the ratio of attacking to defensive buildings, and those compared to the resource gathering buildings, or construction augmenting buildings.

**Conclusion and further refinement:** More attacking buildings are needed. There are some buildings in reserve, so theming should not suffer from this need. A major overhaul of visual theming must be in order. The cards and interactions are lacking color.

#### **Final iteration —**

#### **Final Rule set: see Appendix C**

The final version of this game has a more balanced fighting mechanic, and includes art for the cards as well as the box, players' personal boards, and the townspeople. The amount of attacking buildings equals a third of the total buildings, making the attacking a significant aspect of the game that the player has to think about.

This idea gives the player the need to juggle both the need to fill the goal of winning, but it also lets them slow other players from getting to that win. This in turn involves the whole group of players in more of a battle to the finish line, and not just a race.

Theming was very important from the beginning. Giving the game a solid theme would make the players want to read the cards, and want to see what their opponents would do with the cards that they were dealt.

I had started out wanting a battle to build a town, but went the wrong way at first, by trying to be too complex with the players being their own motivators. This evolved into a better interaction, where the players are acting on themselves as well as each other to strive for individual goals. Some cards intertwine those goals,

giving a player one advantage by giving another player a smaller more permanent advantage. If I were to have more time to balance the game, I would give a definite increase in the attacking/defending idea. Giving the player a small army to defend their little town, while constantly picking off what resistance the other players give him could really prove to be an interesting strategy. But could a sneak attack by another building that can target a weak spot bring that powerhouse down in an instant? By increasing and differing the types of buildings a really sellable game could come from this.



**Appendix A —**

Brainstorming happened very quickly. I got very excited about doing a dice game. After quickly coming to a solid idea, I emailed Jesse about the game's “dice centered-ness” and decided to move forward with it.

#	game	description
1	yatzee 7	yatzee style game with 7 dice, removing two to make hands.
2	cards as skills	card have certain skills and the dice roll to see the outcome of that skill
3	roll the dice to get a card	12 stacks of card with actions on them
4	9 spot board	the player moves about a nine spot board
5	building a town	build a town, rolling to get money to build buildings
6	Create a starship	Build the parts to a starship and explore the galaxy
7		

## Appendix B —

This is the first rule set:

1. Draw 4 buildings from the buildings deck.
2. Roll the 2 dice to see how much money you will get.
3. Build one building and put that many people on your town hall.
4. Use any abilities the buildings you already have out.
5. The game ends when the first person has 10 townspeople.

## Appendix C —

This is the Final rule set:

1. Shuffle the deck of buildings.
2. Each player starts with \$50. 4 white chips (\$5 each chip). 3 red chips (\$10 each chip). Blue chips are worth \$50.
3. Each player must draw 4 cards from the buildings deck.
4. Taking a turn:
  - a. Rolling a drawing phase:
    - i. At the beginning of a player's turn they must roll a die. Multiply by ten (10) and get that amount in chips. Draw a card from the building deck.
  - b. Move phase:
    - i. The player may move townspeople from one building to their Town Hall. That building no longer may use its ability. Some buildings allow for more then their allotment of people. See individual buildings for instructions.
  - c. Abilities phase:
    - i. Each building has abilities, (paying money, getting money, attacking other players...) as long as there are the required amount of townspeople on the building, they can function.
    - ii. A player may attack once for each building they own that can attack (they can have as many attacking buildings as they want). Follow further instructions on the building.
  - d. Build phase:
    - i. Constructing a building requires two things. You may construct as many buildings in one turn as you like.
      1. The amount of money the building costs must be turned in.
      2. Each building has a number of townspeople. The building constructs with them on it.
  - e. The turn is now over.
5. To win, one player must have 10 town's people on their town hall.

