## Alien City

A game for the piecepack and Icehouse pyramids by Michael Schoessow Version 1.2, December 2002
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2 players - 40 minutes

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## Equipment Needed:

1 piecepack
Icehouse pieces (red, blue, green)

## Introduction

Alien City is a game that is set in the far future and concerns the building of a city on a newly colonized world. Society in this distant time is divided into four powerful guilds. These are the Energy Guild (symbolized by a red sun), the Synthesis Guild (symbolized by a blue fountain), the Control Guild (the most powerful guild of all, symbolized by a green crown), and the Builder's Guild (symbolized by a black tool---yes, that's how tools look in the far future).

Cities in this future contain two types of structures, towers and domes. Towers are owned by the various guilds. These are the power plants (energy), factories (synthesis), and government facilities (control). Domes are smaller structures used to house the citizens. As with the towers, domes are always associated with a particular guild. Both towers and domes are color-coded to identify guild affiliation; red for energy, blue for synthesis, green for control, and black for builders.

Each of the guilds wants its towers positioned close to the towers and domes of other guilds (their customers) and far away from its own other towers (to avoid competing with other towers of their own guild). Location, location, location! Some things never change, even in the distant future.

The Builder's Guild is unique because there are no Builder's Guild towers, i.e., no black towers. Instead, the Builders are compensated for their efforts by being given the profits of some of the other guilds' towers that the Builders choose as they construct the city.

The players in this game are competing builders working to construct the city. At the same time, they are choosing towers for themselves that they hope will be profitable with many close customers and little competition. The choices must be made with care because each builder may only choose three.

Red, blue, and green large Icehouse pyramids are used for the towers, and piecepack coins with the suit side up represent red, blue, green, and black domes. The land area of the city is defined by a $4 \times 5$ array of piecepack tiles, suit side up, with each tile representing four building sites. The game-play consists of the players alternating turns, placing a tower or dome each turn until either all available towers and domes have been placed or until there are no legal construction sites remaining within the city. Then scores are determined based upon the relative positions of the towers and domes.

## Required Components

Portions of a piecepack and some Icehouse pyramids as follows:
20 piecepack tiles, consisting of any five of each suit ( 5 red, 5 blue, 5 green, 5 black)
24 piecepack coins (6 red, 6 blue, 6 green, and 6 black)
4 piecepack dice
14 large Icehouse pyramids, 5 red, 5 blue, and 4 green
6 small Icehouse pyramids, 3 red and 3 blue

## Setup

Player A takes half of the piecepack coins, three in each of the four colors, and arranges them suit side up on his side of the table. He also takes half of the Icehouse pyramids, 3 large red, 2 large blue, 2 large green, and 3 small red.

Player B likewise takes half of the piecepack coins and arranges them on her side of the table. She also takes the remaining Icehouse pyramids and should have 2 large red, 3 large blue, 2 large green, and 3 small blue. Both players keep their pieces openly visible prior to using them in the game.

Turn the twenty piecepack tiles over (grid side up) and thoroughly shuffle them. Arrange them into a $4 \times 5$ array between the two players and then turn them over, one at a time. Orientation is important so DON'T rotate the tiles as they are flipped over. The tile array should now show a random distribution and orientation of the twenty tiles, all suit side up and tightly packed together. This area represents the city.

The four dice are used only to determine who starts the game.
Figure 1 shows a typical starting setup.


Fig. 1

## Object Of The Game

During the course of the game, each player has an opportunity every turn to "claim" any tower in the city that is not yet claimed, but each player is also limited to claiming just three towers per game. The object of the game is to claim the towers that will provide the highest profit value at the end of the game, while placing additional towers and domes in such a way that any towers claimed by the other player will go down in value. Towers have a high profit value when they have many close neighboring towers and domes of a different color along the city road network, and when the nearest tower of the same color is far away along the road network (i.e., many close customers and no close competition). Players can also earn bonuses for owning the red and blue towers that are closest to each unclaimed green tower.

## Play

Each player rolls the four dice to determine who starts the game. Highest sum goes first. Blanks count as zeros. Roll all dice again in case of a tie. Players then alternate turns through the remainder of the game.

A turn consists of building (placing on the board) a tower or dome on any legal building site within the city. Players must build either a tower or a dome every turn. They each start the game with seven towers and twelve domes, some from each guild, as laid out under Setup. These are the only structures available to them for building. At the end of his turn a player has the option to claim any unclaimed tower that is on the board. However each player may only claim three towers per game.

A player may not claim a tower on the last play of the game. Note that a player may claim a tower on his own last play in the game as long as he doesn't go last (i.e., the very last action in a game prior to scoring may not be the claiming of a tower).

Claiming a tower is done by placing one of the small Icehouse pyramids on top of it. Player A uses the small red pyramids and player B uses the small blue ones. In this case the red and blue serve only to identify which towers each player has claimed and do not signify affiliation with the energy or synthesis guilds (ideally, it
would be best to use colors other than red and blue for the small pyramids (such as white and black) to avoid confusion, but that would mean buying more Icehouse sets).

## Building Towers And Domes

The city area is defined by the $4 \times 5$ array of twenty tiles. Each tile contains four building sites in a $2 \times 2$ configuration (the tiles are suit side up, so they don't have a grid, but they're treated as if they do). With twenty tiles, this means that there are 80 potential building sites within the city, or, in other words, 80 lots. Each tile also has a zoning restriction based on its' guild (energy/red, synthesis/blue, control/green or builders/black), and based upon the position of the suit icon at the corner of the tile.

When the city is complete, it will contain numerous towers and domes, and must also contain a single contiguous road network. Figure 2 shows the board at the end of a typical game. Note the six claimed towers with the small pyramids capping them (one is difficult to see because it is red on red).


Fig. 2
The road network develops during the course of the game. At any time during the game, the road network consists of the remaining un-built lots. Thus, the road network is broad and extensive during the early phases of the game because most of the lots haven't had anything built on it yet. Figure 3 shows a game that is less than half over. Overlaid broad lines illustrate the road network, as it exists at this point in the game. Near the end of the game the road network becomes constricted and looks more maze-like, as in Fig. 4, which shows the end of the same game.


This mechanism of an evolving road network is one of the most important aspects of the game because when calculating distances between towers and domes, it is always the distance along the road that matters, not the straight-line distance.

Distances along the road network are expressed in terms of how many "spaces" along the road must be traversed. For example, two towers setting side by side on adjacent lots that face onto the same road are a distance of 2 apart along the road. Four examples are described in detail below with the help of Fig. 5:

1. Starting at tower $C$, first move north onto the green- 5 tile, then move one space to the right, still on the same tile, then move south to dome D. Thus to move from $C$ to $D$, two spaces were traversed along the road, and therefore $C$ and $D$ are a distance of 2 from each other.
2. B and $C$ are a distance 1 apart because only one space (the upper left lot on the green-5 tile) must be traversed.
3. $C$ and $A$ are a distance 4 apart. Starting at $C$, move one space north, one space to the right, and two spaces north to end up adjacent to A. Four spaces were traversed getting from $C$ to $A$.
4. F and H , although right next to each other on the board, are very far apart along the road network. Note that passage directly from the green-5 tile to the green null tile next to it is blocked by domes $D$ and $G$ (and roads are never diagonal), so the path must take the very long route; starting at F , travel north of $A$, left of the left-most green tower, south of the bottom two red coins, and then north to H . The total distance is 22 .


The rules for placing towers and domes form the heart of the game, and they are as follows:

1. A tile contains four lots in a $2 \times 2$ configuration.
2. Only one structure (one tower OR one dome) may be built per lot. This means there can be up to four structures on some tiles, but never more than four.
3. Domes may only be built on tiles that match their color, unless there are no remaining legal building sites of their color; in that case the remaining domes of that color may be built on any tile.
4. The first two structures built on a tile must be the same color as the tile. After a tile holds two structures of any kind, towers of any color may be built on that tile. There is an exception for the black tiles (the Builder's Guild zones) - any color TOWER may always be built on a black tile.
In cases where there is a conflict between rules 3 and 4, rule 3 takes precedence.
5. The lot containing the suit icon in the corner of a tile may not be built on until after all other legally buildable lots on that tile have been built on.
6. A structure may not be built in a location that results in any two lots on the board not being connected over the evolving road network. In other words, there must always be at least one road connecting any two lots within the city. A road is defined as a network of orthogonally adjacent lots that do not contain structures. Thus, roads always run N-S or E-W, and never run diagonally. Only one face of a lot need be connected (be orthogonally adjacent) to the road network. Note that no segment of the road network may become isolated or cut off from the rest of the network.
7. Once a tower or dome is placed within the city it is not moved again for the remainder of the game.

Note: Rule \#6 is non-intuitive for some people, and it's easy to inadvertently violate it when playing the first time. Since the coins representing the
domes do not completely fill a lot, the road network is not always as visually obvious as would be desirable.

Figure 5 can be used to illustrate some examples:
The lots just south of H , just north of F , and just north of C may not be built upon because this would deny $\mathrm{H}, \mathrm{F}$, and C , respectively, access to the road network.

The lot just north of $D$ may not be built upon because this would isolate the lot in the upper right-hand corner of the green-5 tile from the road network.

The lot in the bottom right-hand corner of the green ace tile may not be built upon because this would break the road network into two pieces - the section on the black-4, red-2, red-ace, blue-2, and green-null tiles would be isolated from the rest of the board.

These are just three examples. There are other unbuildable lots in the Fig. 5 game.

## Game End and Scoring

When one player can do no further building (either because of having run out of towers and domes or because there are no remaining building sites on which his remaining structures may legally be placed), he or she announces this. The other player then confirms this or points out a building opportunity the first player didn't see. In the latter case, the first player must then build. Remember that players must build during each of their turns, even if it is not to their advantage. In rare cases, a situation may arise where one player cannot build any more structures but the other player can still build two or more. In such a case, these structures are all then built. The game ends when both players agree that no more structures can be built by either player.

Note: Don't forget that players may not claim a tower as the last play of the game. If a player is anticipating having another turn and still has one of his small pyramids to play, but the other player then builds in a position that precludes further play by the first player, the game ends without the first player having placed his last small pyramid to claim a tower.

Scoring now takes place.
First, all claimed towers are individually scored. For each tower, count the number of neighboring structures (towers plus domes) that are within a distance of 2 along the road network, or in other words, structures that may be reached after traversing 1 or 2 spaces along the road network. This number is called the Customer Base. Do not count structures the same color as the tower being scored; a guild's customers are always structures from other guilds. Then, count the number of spaces along the road network that must be traversed to get to the nearest tower of the same color as the one being scored. This is called The

Distance To The Competition. The point score for the tower being scored is then, (Customer Base) x (Distance To The Competition). Score each of the claimed towers in this way. Usually, there are three claimed towers per player.

Second, all UNCLAIMED green towers offer the possibility of additional scoring. The Control Guild actively encourages the building of other guild's towers conveniently close to its own, and rewards such placement. For each unclaimed green tower, if a builder has claimed the closest red tower, that builder receives a bonus. Similarly, if a builder has claimed the closest blue tower, that builder receives a bonus. If the closest red tower is not claimed, then neither builder receives a bonus for it, and similarly for the closest blue tower, if it is unclaimed. In the case of a tie between two towers for closest distance, no bonus is given out for that color. The bonus size depends on how close the red and blue towers are to the green tower. The bonus size is equal to 10 minus twice the distance (where distance is defined as the number of empty spaces traversed along the road network as usual). For example, if the closest red tower to an unclaimed green tower is 3 spaces away and is claimed by one of the players, then the bonus that player receives for his red tower is $10-(2 \times 3)$ or in other words, 4 points. One player may receive two bonuses associated with a single green tower if that player owns both the closest red tower and the closest blue tower. Note that towers further away than four spaces do not result in bonuses.

Players add together the points they received for each of their claimed towers as well as any bonus points they may have received for claiming the closest towers to unclaimed green towers. The player with the higher points total wins the game.

Figure 6 shows a completed game. (Note that there are no vacant lots remaining that are legally buildable. This is often the case at the end of a game). The claimed towers have been numbered for reference. The scoring for this game is calculated as follows.

## Scoring for Red:

Tower A has four customers (i.e., four non-red structures that are a distance away of 2 or less). These are a blue tower, two blue domes, and a black dome. The nearest competitor (the nearest other red tower) is on the red-null tile and is a distance of 4 away. So the points score for $A$ is $4 x 4=16$.

Tower B has seven customers (four red domes, one red tower, and two green domes) and the competition is at a distance of 5 (the blue tower on the blue-4 tile). The points score is $7 \times 5=35$.
Tower G has only two customers (a black dome and the red E tower) but is a distance 19 away from the nearest other green tower (D). The points score is $2 \times 19=38$.

Red receives no bonuses so Red's total score is $16+35+38=89$ points.

## Scoring for Blue:

Tower C has six customers (two green domes, a blue dome, a black dome, and two blue towers) and the competition is at a distance of 3 (the red C tower). The points score is $6 \times 3=18$.

Tower E has eight customers (two black domes, three green domes, one blue dome, and two green towers), and the competition is at a distance of 3 (the red C tower). The points score is $8 \times 3=24$.

Tower F has only two customers, both blue domes, and is at a distance of 12 from the competition (the nearest other green tower, on the green ace tile). The points score is $2 \times 12=24$.

Blue owns a red tower ( E ) that is close to the unclaimed green tower D but Blue does NOT receive a bonus because another red tower is equally close to $D$.

Blue's total score is $18+24+24=66$ points.
Thus, Red wins the game, 89 to 66 . Note that the closest blue tower to D and the closest red and blue towers to the other unclaimed green tower are unclaimed, so no bonuses result from these.


Fig. 6.

## Variation

In any city some locations are just more attractive to people than others. This is as true in the far future as it is today. The number on a tile represents the intrinsic desirability of the lots on that tile. When scoring a game, players may receive location bonuses for claimed towers equal to the tile numbers on which the towers are built. But, if two or more claimed towers are sitting on tiles having the same numbers, then none of those towers result in location bonuses (not exclusive enough anymore I suppose). For example, if player A claims a tower on a lot on the green \#4 tile, then she will receive a 4 point location bonus, unless player B claims a tower setting on any \#4 tile; then neither player receives a bonus.\&

