

CITY PLANNING

Version 1.1
Version Date 14-Jun-2002
Number of Players 2
Game Length 30-90 minutes
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EQUIPMENT

- 1 piecepack (see www.piecepack.org)
- 1 standard Go board with two sets of differently colored Go stones (white and black stones are assumed in these rules)
- 1 opaque bag or bowl from which to draw piecepack coins
- Paper and pencil for score keeping

Note – This design is fairly dependent on “standard” piecepack and Go board dimensions. These rules assume that your piecepack tiles are 2” x 2”, your piecepack coins are ¾” x ¾”, and the lines on your Go board are about 7/8” apart. You might be able to muddle through with components of different sizes, but I don’t recommend it. I’m also assuming a 19 x 19 Go board, but you could probably use any size you like.

INTRODUCTION

The little village of Fumblebuck, Iowa, is in trouble. It’s currently a small village, but the population is booming and the rich resources of the area are bringing industry and commerce. The mayor of Fumblebuck decides to hire a pair of city planners to help plan and control the growth of his budding metropolis. The city planners know that the one who successfully brings the most balanced development to Fumblebuck will be assured of a long and lucrative political career in the region. So they set about zoning the county for development.

The players are the city planners hired to develop Fumblebuck. They compete with each other to create the best-supported Residential, Agricultural, Commercial, and Industrial zones in which businesses and families can thrive. The game progresses from a relatively unstructured growth in population and resource development in the area of town (placing Go stones on the board), through the establishment of various zones for constraining land usage (placing piecepack tiles on the board), to bringing new businesses, industries, and housing developments to town (placing piecepack coins on the board).

DEFINITIONS, ASSUMPTIONS, AND DISCLAIMERS

1. “Point” refers to the intersection of two lines on the Go board. Stones and coins are always placed on a point in this game, and tiles are always placed to cover exactly 9 points. See the rules below for details.
2. “Adjacent points” are either orthogonally **or** diagonally next to one another.
3. Blank coins and tiles always have a value of zero, and aces always have a value of 1.

4. "Active player" always refers to the player currently taking his turn. "He", "him", and "his" are used as generic pronouns for convenience, but no gender preference is intended.
5. This game deals with some general concepts of urban planning and city zoning, but since I really don't know anything about how real zoning works, this game only reflects my possibly twisted perception of it. If any urban planners are playing this game, please excuse my laughable ignorance.

INITIAL SETUP

1. Place the board in the middle of the table. The board represents the region surrounding Fumblebuck.

2. Place a cross containing 3 white stones and 2 black stones in the center of the board, as shown in figure 1. This represents the initial state of the village of Fumblebuck. Place the rest of the stones near the board as a pool for use by both players. The white stones represent people living and working in the area and the black stones represent local resources (farm land, mines, etc, etc). Hereafter, white stones will be referred to as "Population" and black stones will be referred to as "Resources".

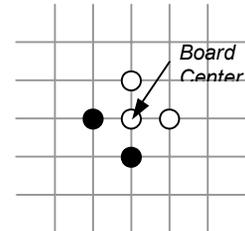


Figure 1

3. Mix the 24 piecepack tiles together face down in one stack to one side of the board. Draw 3 random tiles from the pool and turn them face up beside the board. The tiles represent land use zones that can be created throughout the game. The 3 face up tiles are the zones that are immediately available to be placed by either player. Hereafter, tiles will be referred to as "Zones".

The four suits on the tiles represent the four different types of Zones and Developments available in this game:

Suit	Zone and Development Type
Crowns	Residential
Suns	Agricultural
Moons	Commercial
Arms	Industrial

4. Mix the 24 piecepack coins together in the bag. Each player draws 3 random coins from the bag and keeps them secret from the other player. The coins held by a player represent the developments that that player wishes to create. Hereafter, coins will be referred to as "Developments". The suits on the coins indicate development types exactly the same as the zone types shown above.
5. Select the first player randomly. He is now ready to begin the game.

OBJECT OF THE GAME

The winner is the player who has recorded the most development points when the game ends.

The game ends when one of the following events occurs:

- The last Zone has been placed on the board –OR–
- A player is unable to refill his hand to a full 3 Development coins (i.e. the bag is empty after a player has placed a new Development) –OR–
- Both players agree that there are no more valid or desirable plays to make. (This is unlikely to occur, but it's here in case it's needed.)

SEQUENCE OF PLAY

1. Once setup is complete, the players alternate turns, beginning with the first player.
2. Each turn consists of the active player taking the following two actions:
 - Place 2 or 3 new stones (see 3 below)
 - Place 1 new Zone (see 4 below) –OR–
Place 1 new Development (see 5 below) –OR–
Pass (play no Zone and no Development this turn)
3. **Place Stone(s)** – The active player **must** place 2 or 3 new stones on the board. Placement is restricted as follows:
 - 3.1. The active player may choose to place either 1 Population and 1 Resource stone **or** 3 Population stones **or** 3 Resource stones. That is, he can either place 2 different stones or 3 stones of the same type, but he must choose one of those options each turn.
 - 3.2. Each new stone must be placed on an empty point on the board. The new stones are **not** required to be placed adjacent to one another, but stone placements may be “chained” if desired.
 - 3.3. Each new Population stone must be placed such that it is adjacent to at least 1 other existing stone, but no more than 1 Resource stone and no more than 3 other Population stones. (People tend to prefer to locate near other neighbors, but away from too much crowding and industry.)
 - 3.4. Each new Resource stone must be placed such that it is adjacent to at least 1 other existing stone of any type. (Resource development is pretty much only restricted by availability.)

Example – In figure 2, the active player could place a Population stone at (a) because it is surrounded by only 3 other Population stones and only 1 Resource stone. However, he could not then place a second Population stone at (b) because it would be adjacent to 4 existing Population stones, which is too many. There would be no restriction against placing a Resource stone at (b) instead. A Population stone could not be placed at (c) because it is adjacent to 2 Resource stones. The Resource stone at (d) is valid because it need only be adjacent to any one other existing stone, regardless of type, and diagonal adjacency counts. No stone can be placed at (e) because it's not adjacent to any existing stone.

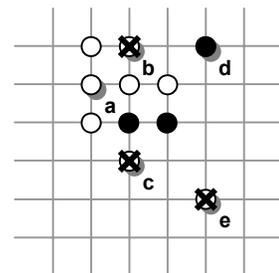


Figure 2

4. **Place Zone** – The active player may choose one of the three face-up Zones to be placed on the board. This represents the designation of a certain area of land for one of four types of use. The Zone tile is placed according to the following rules:

4.1. First, if there are any stones on the Zone being placed (representing the number of player turns that the Zone has been available but not placed, see 6.1 below), return them to the common pool and add that many points to the active player’s score. (For example, if the active player choose to place a tile that has collected 4 stones by not being placed for the last 4 turns, he gains 4 points.) This rewards a player for creating a Zone that has been in the queue for a long time.

4.2. A Zone must always be placed such that it exactly covers a square of 9 (3 x 3) points on the board, as shown in figure 3.

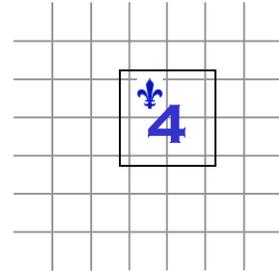


Figure 3

All Zones after the first one must be placed adjacent to at least 1 existing Zone. (Two Zones are considered adjacent to each other if at least one point in one Zone is adjacent to at least one point in the other, and that includes diagonal adjacency as always.)

4.3. The area covered by a Zone must contain a certain number of previously-placed Population stones and/or Resource stones and/or empty points, depending upon the Zone Type.

Each Zone Type has a Primary Requirement and a Secondary Requirement. Of the 9 points covered by the Zone, at least $N+1$ of them must satisfy the Primary Requirement, and at least $N/2$ (half N , fractions rounded down) must satisfy the Secondary Requirement, where N is the point value of the Zone tile.

As long as both the Primary and Secondary Requirements are met, there are no restrictions on whether the other points contain stones or not.

However, a Zone may **never** be placed such that it removes the last stone from the board. There must always be at least one unzoned stone on the board from which to grow.

Return any stones covered by the newly placed Zone to the common pool.

The Primary and Secondary requirements of each Zone Type are given below:

Zone Type	Primary Requirement	Secondary Requirement
Residential	Population	Empty
Agricultural	Empty	Population
Commercial	Population	Resources
Industrial	Resources	Population

Example – In figure 4, the active player wishes to create a new Commercial 3 Zone. He could place the tile over the area indicated by (a) because there are at least 4 (N+1) Population stones and at least 1 (N/2) Resource stone in those 9 points. If he were trying to place a new Agricultural 4 Zone instead, he could place it over the area indicated by (b) because there are at least 5 (N+1) empty points and at least 2 (N/2) Population stones. Area (b) cannot be converted into a Commercial 3 Zone, however, because there are not enough Population stones.

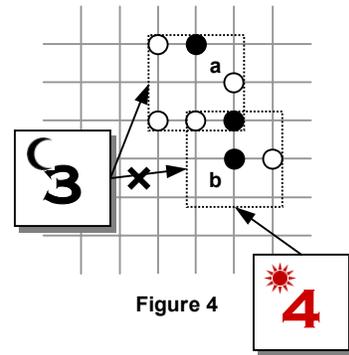


Figure 4

4.4. **Incorporation** - A Zone may be placed over one or more existing “unincorporated” Developments (see 5.1 below for an explanation).

An unincorporated Development can always be counted as either its Primary Requirement or its Secondary Requirement for the purpose of placing a new Zone. (For example, an unincorporated Residential Development can be counted as either a Population point or an empty point at the choice of the active player when placing a new Zone that incorporates that Development.)

If an unincorporated Development is of the **same type** as the new Zone that incorporates it, there is no penalty. Flip the Development to its number side and leave it on the newly placed Zone tile. This Development will count against usage limits in that Zone, but it does not score any additional points for either player.

If an unincorporated Development is of a **different type** than the new Zone that incorporates it, this is considered to be a “rezoning”. See 4.5 below for how this is handled.

Example – In figure 5, the active player wishes to create a new Commercial 3 Zone, just as in the previous example. He could still place the tile over the area indicated by (a) because the unincorporated Development there is a Commercial one. (In this case, it is counted as if it were a Population stone, which is allowed because Population is the Commercial type’s Primary Requirement.) This coin is placed number side up on the Commercial 3 Zone tile. However, if the player places the Agricultural 2 Zone over area (b), he will incur a rezoning penalty because of the unincorporated Commercial Development. The Agricultural 2 Zone could be placed over area (c) without penalty, with the unincorporated Agricultural Development being counted as a Population stone to fulfill the Secondary Requirement

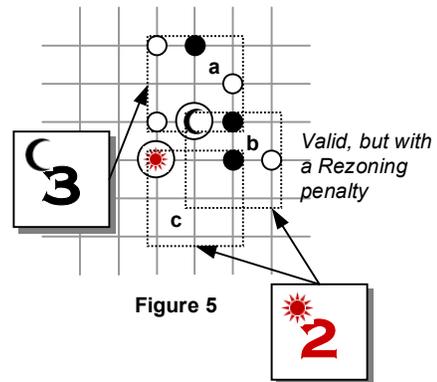


Figure 5

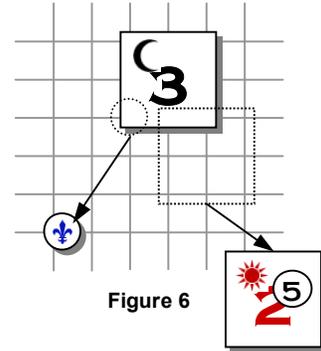
- 4.5. **Rezoning** – When a player places a new Zone such that it replaces or overlaps an existing Zone or an existing unincorporated Development of a different type, he will incur a penalty since this probably requires the destruction of a significant amount of existing infrastructure and Developments.

A Zone with one or more points overlapped by the new Zone must be removed. Return the removed Zone to the bottom of the Zone tile stack. (If more than one Zone must be removed, the active player may choose the order in which they are returned to the bottom of the tile stack.) Remove any Developments that had been placed on the removed Zone(s) from the game.

The active player must deduct the total value of any Zone(s) and Development(s) removed in this way from his score.

An unincorporated Development (see 5.1 below) that is overlapped by the new Zone must be removed if its type (suit) does not match the Zone's type. Remove the Development from the game and deduct 2 points from the active player's score.

Example – In figure 6, the active player still wishes to create a new Commercial 3 Zone, but this time there is an Agricultural 2 Zone and an unincorporated Industrial Development already in the way. That's ok -- Feel free to plow those fields under and build those strip malls! The Agricultural 2 Zone is returned to the bottom of the stack off the board, and the Agricultural 5 Development that was on it is removed from the game. The Industrial Development is also removed from the game. The active player gets his Commercial Zone, but he has to subtract $(2+5)+1=8$ points from his score.



5. **Place Development** - The active player may select one Development from the three he holds to be placed on the board. This represents the creation of some set of businesses, subdivisions, buildings, infrastructure, etc, that provides value to Fumblebuck.
- 5.1. **Unincorporated Development** - A Development may be placed on an empty point on the board, similar to placing a stone. This is an “unincorporated” Development. It lacks full infrastructural support, so its benefit is limited, but it can be a start toward the future.
- 5.1.1. The point on which the Development is placed must have at least 2 adjacent points that meet the Primary Requirement and at least 1 adjacent point that meets the Secondary Requirement for the appropriate Type. (See 4.2 above for the Type Requirements.) Think of the unincorporated Development as a 1-point mini-Zone.
- 5.1.2. Place the Development coin **suit** side up on the desired point. The number value of an unincorporated Development is ignored, but it may be examined by either player at any time.

- 5.1.3. The active player adds 1 development point to his score for placing an unincorporated Development.

Example – In figure 7, the active player may place a Residential Development on point (a) because there are at least 2 Population stones and 1 empty point adjacent to it. However, he cannot place the Industrial Development on point (b) because it is not empty, nor on point (c) because there is only 1 Resource stone adjacent.

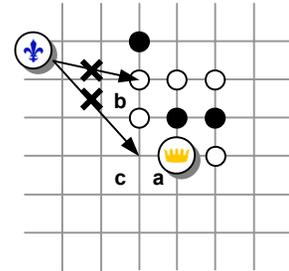


Figure 7

- 5.2. **Zoned Development** - A Development may also be placed on an existing Zone tile. The Zoning represents full support of the city infrastructure, enabling the active player to potentially collect many more points than for an unincorporated Development.

- 5.2.1. The Development must be of the same Type as the Zone on which it is placed.
- 5.2.2. The Zone tile must **not** already have Developments with a total value greater than or equal to the Zone's value. If this is the case, the Zone is fully built out, and no new Developments may be made in that Zone.

However, assuming the Zone is not yet fully built out, it is perfectly acceptable for the active player's Development placement to exceed the Zone value. There is no need to exactly match the Zone value, but once the Zone value is matched or exceeded, it is full.

- 5.2.3. Place the Development coin **number** side up on the desired Zone tile.
- 5.2.4. The active player scores development points equal to the value of the Development placed, up to the remaining capacity of the Zone.

In addition, these zoned Developments may benefit or suffer significantly from surrounding Developments. For example, it's generally not good to have Residential Zones right next to major Industrial Zones, but Commercial Zones depend on nearby Residential Zoning to provide a customer base. The active player must collect bonus or penalty points for the value of certain surrounding Developments, depending on the Type of Development he created.

Consider all Zone(s) that are adjacent to the Zone where the Development was placed. Find the highest value Development on each of those Zone(s). If the adjacent Zone is Beneficial, **add** the Development's value as bonus points. If the adjacent Zone is Detrimental, **subtract** the Development's value as penalty points.

The Beneficial and Detrimental neighbor(s) of each Zone Type are given below:

Zone Type	Beneficial Neighbors	Detrimental Neighbors
Residential	Commercial	Industrial
Agricultural	Agricultural	Residential, Industrial
Commercial	Residential	Commercial
Industrial	Residential, Commercial	None

Example – In figure 8, the active player may place his Residential 4 Development in the Residential 2 Zone because it is not already full (but not the Residential 0 Zone, because it is full). This would net him 1 (for the value of the new Development, capped because the 2-value Zone already has a 1-value Development in it) + 5 (for the bordering Commercial 5 Development) + 3 (for the Commercial 3 Development in the other adjacent Commercial Zone) - 4 (for the neighboring Industrial 4 Development) = 5 development points. The neighboring Agricultural 2 Development contributes nothing, positive or negative, and the Industrial 5 Development is ignored because it is not adjacent to the Residential 2 Zone.

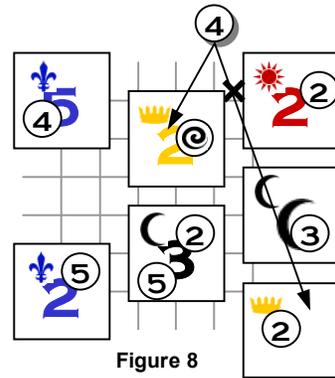


Figure 8

6. **End of Turn** - The active player must conclude his turn as follows:
 - 6.1. Place one stone on top of each face up Zone beside the board. (This will be 2 Zones if the player placed a Zone this turn, or 3 Zones if he didn't.) The necessary stones are taken from the common pool, and the stones' color does not matter – This simply serves to count how many player turns each Zone has remained available without being placed. (See 4.1 above.)
 - 6.2. If the active player placed a Zone this turn, draw the next Zone tile from the stack (if there is one remaining) and turn it face up to replace the one taken. If the last (24th) Zone was placed on the board, the game is now over. The player with the highest recorded point total at this time wins the game!
 - 6.3. If the active player placed a Development this turn, he must draw a new Development randomly from the bag and add it to his hand. If the bag is empty when a new one is to be drawn, the game is now over. The player with the highest recorded point total at this time wins the game!