

18Ardennes – Rails Through The Ardennes

1	INTRODUCTION	1
1.1	GAME COMPONENTS	1
1.2	HOW TO WIN	1
1.3	PLAYER ETIQUETTE.....	1
1.4	TYPES OF COMPANIES	1
1.4.1	Minor Companies	1
1.4.2	Public Companies	2
2	GAME PHASES.....	2
3	SETTING UP AND STARTING THE GAME.....	2
3.1	SETTING UP THE GAME.....	2
3.2	CONDUCTING THE INITIAL AUCTION	3
3.2.1	Auctioning the Minor Companies.....	3
3.2.2	Selling Unbought Minor Companies	3
3.2.3	Ending the Initial Auction and Assigning the Priority Deal	3
3.2.4	Starting a Minor Company	3
3.2.5	The Guillaume-Luxembourg	4
4	THE STOCK MARKET.....	4
4.1	SHARES, SHARE CERTIFICATES, AND LIMITS ON OWNERSHIP.....	4
4.2	MOVEMENT OF STOCK PRICES.....	5
4.2.1	Minor Companies and the Grey Zone.....	5
5	SEQUENCE OF PLAY—STOCK ROUND	5
5.1	STOCK ROUND.....	5
5.1.1	Selling Stock.....	5
5.1.2	Buying Stock	6
5.1.3	Merging Minor Companies.....	6
5.2	BIDDING FOR PUBLIC COMPANIES	6
5.2.1	Qualifying Minor Companies	6
5.2.2	The Auction	6
5.3	FORMING A PUBLIC COMPANY	7
5.3.1	Acquiring Additional Shares and Merging Additional Minor Companies	7
5.4	CHANGE IN PRESIDENCY	8
5.5	ENDING THE STOCK ROUND	8
6	SEQUENCE OF PLAY—OPERATING ROUND	8
6.1	CONVERTING A 5-SHARE COMPANY TO A 10-SHARE COMPANY	8
6.2	ISSUING TREASURY STOCK.....	8
6.3	LAY OR UPGRADE TRACK	9
6.4	ADDITIONAL STATION TOKEN PLACEMENT.....	9
6.4.1	Ports and Ferry Rights	9
6.4.2	Mining Cities and Mining Rights	10
6.4.3	Forts.....	10
6.5	TRAIN OPERATION AND EARNINGS CALCULATION.....	10
6.5.1	Trans-Europ-Express (TEE) Routes	11
6.6	DIVIDEND PAYMENT	12
6.7	CURRENT MARKET VALUE ADJUSTMENT.....	12
6.8	TRAIN BUYING	12
6.8.1	Train Obsolescence.....	12
6.8.2	4D-Trains (10-Share Companies Only)	12
6.8.3	Train Buying from Other Companies	13
6.8.4	Mandatory Train Buying	13
6.8.5	Emergency Money Raising.....	13
6.8.6	Bankruptcy.....	13
7	ENDING THE GAME	14
8	DESIGNER’S NOTES.....	I
8.1	DESIGN AND DEVELOPMENT: FROM 1824 TO 18EU	I

18Ardennes – Rails Through The Ardennes

8.2	THE LANGUAGES OF 18ARDENNES.....	II
9	ACKNOWLEDGMENTS, CREDITS AND COPYRIGHT NOTICES	III
10	DEDICATION: IN MEMORIAM GEERT LAGROU (1965-2007)	IV
11	APPENDICES	V
11.1	GAME PHASES	V
11.2	TILES AND UPGRADES	V
11.3	THE MINOR COMPANIES.....	VI
11.4	THE PUBLIC COMPANIES	VI
11.5	THE CITIES	VII
11.6	THE TOWNS.....	VIII

18Ardennes — Rails Through The Ardennes

1 Introduction

18Ardennes is an “18xx” game set in northwestern Europe, including northern and eastern France, Belgium, the southern part of the Netherlands, and the Rhine-Ruhr basin of Germany.

1.1 Game Components

The game includes a Map, a Stock Market chart, and various additional play-aids. There are 21 Companies in the three-player and the five-player game: 15 Minor Companies, each represented by a single share certificate representing two shares; and six Public Companies that are represented by nine share certificates representing ten shares. In the four-player game, there is an additional Company (the Guillaume-Luxembourg), represented by a single, fixed-price share, which provides a fixed income to its owner.

There are also a number of train cards, each representing a train; track tiles; markers, mostly representing station tokens; and twelve thousand francs (or florins) (f.12,000) in various denominations, which represents the amount of money in the Bank.

1.2 How to Win

Players win by having the highest net worth at the end of the game. Cash on hand and stock shares owned add to net worth. Company-owned assets—such as Company cash and trains—do not contribute to net worth.

1.3 Player Etiquette

Players should attempt to speed play as much as possible. In particular, players should try to determine what share to buy or what tile to place or upgrade during another player’s turn.

A player must disclose his current cash and the current cash of any Company he controls upon request by another player. Both player cash and Company cash should be piled neatly in front of the player (in the case of personal cash) or in the Treasury section of the Company Charter. Neatly display the Company’s trains in the train section of the Company Charter.

Each player should display his owned Certificates neatly in front of him and must reveal his holdings in a Company on demand.

Corporate transactions are public knowledge, whether conducted between a Company and the Bank, a Company and a player, or two Companies.

Players may engage in public, verbal discussions and enter into public, verbal agreements. Such discussions should be reasonably brief in order to speed play. Performance is not enforceable except by moral suasion: a player who has performed an action under such an agreement in the anticipation of future action by his partner has no other recourse if his partner reneges on the agreement. Secret discussions or agreements, whether verbal or written, are prohibited.

1.4 Types of Companies

There are 21 Companies in the game: 15 Minor Companies (plus, in the four-player game, the Guillaume-Luxembourg) and six Public Companies. At the start of the game, only the Minor Companies are in play.

1.4.1 Minor Companies

Minor Companies may place yellow track or upgrade yellow track to green track (if available) only, place their (single) extra token, buy and operate trains, and generate revenue. Minor Companies may **not** upgrade green track to brown track. Minor Companies that pay dividends pay half their earnings to the President and retain half in their Treasury: in effect, they act as if they had two invisible shares permanently assigned to their Treasury. A Minor Company may withhold its earnings, in which case the Bank pays the full amount to the Minor Company Treasury.

Unlike Public Companies, Minor Companies are never required to own a train: thus, they can never be in a “mandatory train buying” or “emergency money raising” situation. A trainless Minor Company goes back one space on the Stock Market each Operating Round until it enters the Grey Zone.

18Ardennes – Rails Through The Ardennes

1.4.2 Public Companies

Public Companies may form as 5-share Companies beginning in the Stock Round that follows the start of Phase 3. 5-share Companies may convert to 10-share Companies at the start of their operating turn provided that they have operated at least once. Public Companies may issue their Treasury stock after the start of Phase 4.

Public Companies may place two yellow track tiles each Operating Round, or upgrade one tile from yellow to green, or (if available) from green to brown.

2 Game Phases

18Ardennes goes through a series of Phases, which affect which tiles are available, which trains Companies may buy, which trains rust, and various other aspects of the game. At the beginning of the game only yellow track tiles and 2-trains are in play.

3 Setting Up and Starting the Game

3.1 Setting up the Game

Place the Map and the Stock Market flat between the players. Place the Round Marker (the white token with the BoxPok™ wheel) in the turn-order space marked “Stock Round”. Arrange each Public Company’s share certificates in a stack, with the five unmarked single shares at the bottom, then the three single shares marked “Preferred Stock”, and finally the President’s Certificate at the top, and place them in the spaces on each side of the Open Market. Place the Minor Company Charters near the Open Market.

Sort the Bank into denominations and place it near the play area within easy reach of the players. Distribute f.2,100 to the players as follows:

Players	3	4	5
Starting Money	f.700	f.525	f.420

Take one station token from each Minor Company and place them in the company’s starting locations as shown on the map. Place one Ferry Rights bonus token (⚓) in Vlissingen (E5) and two each in Brugge (F4) and Dunkerque

(G3). Place two Mining Rights bonus tokens (⚒) in Charleroi (H10), one in Saarbrucken (I21), and one on the

Pfalzbahn (Minor Company #7) charter. Place two Fort bonus tokens (⚔) in Metz (J18) and a single Fort bonus token in each of the three Fort Towns: Nancy (K19), Épinal (L22), and Belfort (M23). The Minor Company station tokens and the Ferry and Mining Rights bonus tokens automatically occupy City circles in their hexes and block routes through the City circle they occupy. Fort bonus tokens do not occupy City circles or block routes.

Take the trains and arrange them in a stack, with the lowest-cost (the 2-trains) on top and the highest-cost (the 6/4D-trains) on the bottom. Place the Train Stack near the map.

Randomly determine the player turn order using the markers numbered one through five. The player who selects marker #1 receives the “Priority Deal” marker and has the first opportunity to act in the Initial Auction. The other players will then act in ascending order of their player numbers. The order of the players remains fixed throughout the game, though the Priority Deal marker may be reassigned: this is referred to as “Stock Round order”. The players may wish to reseal themselves in Stock Round order for convenience. Once this is done, players conduct the Initial auction, during which they auction off the Minor Companies:

- In the 3-player or 5-player game, use only the Minor Companies numbered #1 through #15.
- In the 4-player game, add the Guillaume-Luxembourg (#0). For the purposes of the Initial Auction, the Guillaume-Luxembourg is treated as a Minor Company.

18 Ardennes – Rails Through The Ardennes

3.2 Conducting the Initial Auction

Once the game is set up, the players conduct the Initial Auction. This is a process similar to a Stock Round during which the Minor Companies are auctioned one at a time by the players. The Initial Auction continues until the players have bought all the Minor Companies.

3.2.1 Auctioning the Minor Companies

Only players with at least f.100 in personal cash are eligible to participate in the auction process: ignore the turn of any player who has less than f.100 remaining. When the Initial Auction starts, all players are eligible: as players successively reduce their cash below f.100, they become ineligible. It is possible for all players to lose their eligibility, in which case the Bank subsidizes the price of the remaining Minor Companies and the minimum required for a player to be eligible goes below f.100.

Starting with player #1, each eligible player selects a Minor Company to auction. After the auction for a Minor Company concludes and the winning bidder has started the Minor Company, the next eligible player after the one auctioning the previous Minor Company selects one of the remaining Minor Companies to auction. This process continues until there are no eligible players or all the Minor Companies have been sold.

After selecting a Minor Company, the player must bid a multiple of f.5 which is at least f.100 on the Minor Company he selected. Each other player in turn either bids a multiple of f.5 which is larger than any previous bid on that Minor Company, or passes. A player who passes may not rejoin the auction for that Minor Company. A player who has less than the amount he would require to stay in the auction must pass. Once all players but one pass in turn, the Minor Company is sold to the highest bidder. The highest bidder now starts the Minor Company as described below.

3.2.2 Selling Unbought Minor Companies

If all players become ineligible while any Minor Companies (including the Guillaume-Luxembourg) remain unsold, the remaining unsold Minor Companies (including the Guillaume-Luxembourg) are sold at a discount.

The player who has the most remaining cash (if two or more players are tied, continue from the existing turn order) selects one of the remaining Minor Companies and pays all his cash to the Bank. The Starting Value for such a Minor Company is f.50. The Bank provides the Minor Company with f.100.

This process continues until all remaining Minor Companies (including the Guillaume-Luxembourg) are sold.

3.2.3 Ending the Initial Auction and Assigning the Priority Deal

Once all the Minor Companies have been auctioned, the player after the one to buy the last company receives the Priority Deal marker.

3.2.4 Starting a Minor Company

When a player wins the auction for the Guillaume-Luxembourg, he pays the Bank and takes it.

When a player wins any other Minor Company auction, he immediately starts it by performing the following steps:

- Determine the Starting Value for the Minor Company, which will be between f.50 and f.90. The Starting Value is equal to half the winning bid rounded down to the nearest of the available Starting Values. The maximum Starting Value is f.90: any excess bid above this is lost. All Minor Companies that are sold non-competitively at a discount start at f.50.
- Place the Minor Company's Current Market Value token in the Stock Market space corresponding to the appropriate Starting Value, below any other tokens already in that space.
- Pay **twice** the Starting Value (f.100 to f.180) to the Minor Company Treasury and return the difference (if any) between this amount and his winning bid to the Bank. In the case of Minor Companies sold non-competitively at a discount, the Bank pays the Company Treasury f.100.
- Take the Minor Company President's Certificate, its Charter, and one additional station token.
- (Minor Companies #1, #2, #8, #9, #11, #12, and #15 skip this step as their base hex is pre-printed) Place an appropriate City (#3 and #7) or Y-City (#4, #5, #6, #10, #13, and #14) tile in the Minor Company's starting

18 Ardennes – Rails Through The Ardennes

hex and place the Minor Company's base station token in the City circle on the tile. Note that Minor Company #7 starts with a free Mining Rights bonus token: Minor Company #7 does not pay for it.

These actions are part of the Minor Company formation and not of its first Operating Round. Each Minor Company may still place a yellow tile and its second station during the first Operating Round.

3.2.5 The Guillaume-Luxembourg

The Guillaume-Luxembourg pays f.25 to the player who owns it at the beginning of each Operating Round. The Guillaume-Luxembourg is treated as a single share of stock worth f.100: the player who owns it may sell it to the Open Market during a Stock Round, and receives f.100 from the Bank when he does so. If the Guillaume-Luxembourg is in the Open Market, it is treated like any other share of stock: any player other than the one who sold it may buy it in the current Stock Round for its face value of f.100, and if it remains in the Open Market until a subsequent Stock Round, any player may buy it even if he previously sold it.

4 The Stock Market

The Stock Market shows the current value of each Company's stock. The values shown are the amount represented by a single share certificate. There are two groups of consecutive spaces outlined in red. The lower group (f.50, f.55, f.60, f.70, f.80, and f.90) represents the possible Starting Values for Minor Companies. The higher group (f.140, f.160, f.180, f.200, and f.220) represents the possible Starting Values for Public Companies.

4.1 Shares, Share Certificates, and Limits on Ownership

There are important distinctions between shares and share Certificates. A single share of a Public Company is worth either 20% or 10% of the Company. The President's Certificate always represents **two** shares. For a Public Company, this represents either 40% or 20% of the Company. Each Minor Company whose value is not in the Grey Zone also represents two shares (50% of the Minor Company) and one certificate. For purposes of share ownership in a Company, only the percentage of ownership as represented by shares is relevant.

Players are limited to buying up to 60% of a Company's stock from the Initial Offering or the Company Treasury. However, players may acquire and retain more than 60% of a Company's stock either by buying shares from the Open Market or by exchanging additional Minor Companies for Treasury shares. It is possible for a player to own up to 100% of the stock in a Public Company.

For purposes of certificate limits, only the number of certificates held is relevant. Except for Minor Companies valued in the Grey Zone of the Stock Market, each share certificate or Minor Company charter counts as one certificate, whether it represents one or more shares. The Certificate Limit varies in function of the number of 10-share Companies. Players are limited to owning Certificates (not shares) in accordance with the following table:

10-Share Companies	0-1	2	3	4	5-6
3 Players	11	12	13	14	15
4 Players	8	9	10	11	12
5 Players	6	7	8	9	10

Certificate limits apply during the Stock Round, but not during Operating Rounds: a player may exceed the current Certificate Limit during the Operating Round. A player who enters the Stock Round in excess of the limit must sell sufficient stock at his first opportunity to return to the Certificate Limit.

Once a player buys a President's Certificate, he may never sell it, and consequently a President's Certificate, once bought, may never enter the Open Market except because of a bankruptcy. Since only the President of a Minor Company can hold its shares, he can never sell its stock or otherwise transfer its Presidency. The President of a Public Company may transfer its President's Certificate to another player by selling some or all of his stock in the Company. All adjustments in share holdings are concurrent: hence, a player who owns a President's Certificate may always sell a number of shares sufficient to transfer the President's Certificate while leaving himself with exactly one share provided another player holds at least two shares, there is room in the Open Market, and the Company has operated at least once. Once a Company has started, no more than 50% of its stock may be in the Open Market.

18 Ardennes — Rails Through The Ardennes

4.2 Movement of Stock Prices

Current Market Values move because of several factors:

- If the President (**not** another player!) sells one or more shares of a Company during a single Turn of the Stock Round, the Current Market Value of the Company moves one space down in value for each share sold.
- If, at the end of a Stock Round, a Company has one or more shares in the Open Market, its Current Market Value is moved one space down in value.
- If a Company Operates and withholds its earnings or its earnings are zero, its Current Market Value is moved one space down in value.
- If a Company Operates and declares a Dividend which is greater than or equal to its Current Market Value, its Current Market Value moves one space up in value.
- If a Minor Company in the Grey Zone declares a non-zero dividend, its Current Market Value moves up into the f.50 space.
- If a Minor Company or 5-share Public Company (**not** a 10-share Public Company!) currently valued at f.50 or higher declares a Dividend which is greater than or equal to **twice** its Current Market Value, its Current Market Value moves **two** spaces up in value.
- If a Public Company issues one or more shares of Treasury stock to the Open Market during the Operating Round, its Current Market Value token moves one space down in value for each share sold.

If a Company's token moves into a space that one or more other Companies' tokens already occupy, place it at the bottom of the stack of tokens. This is true of Starting Value token placement as well as token movement for the reasons described above.

If a Company Operates and declares a Dividend which is greater than zero but less than its Current Market Value, its Current Market Value remains unchanged, and it retains its relative position in a stack of tokens.

The lowest Current Market Value is f.50. The highest Current Market Value is f.400. A Public Company Current Market Value token that should move below f.50 or above f.400 does not move. A Minor Company Current Market Value token that should move above f.400 does not move.

4.2.1 Minor Companies and the Grey Zone

A Minor Company Current Market Value token that should move below f.50 moves into the grey space adjacent to the f.50 space. Once there it does not move down any further. Minor Companies "valued" in this space have zero value: any Minor Company whose token is in this space at the end of the game is worthless and counts for zero score. Furthermore, Minor Companies whose token is in this space may not form or merge into Public Companies. A Minor Company "valued" in the Grey Zone does not count as a certificate.

5 Sequence of Play—Stock Round

5.1 Stock Round

During a Stock Round, players may sell and then buy stock. Players begin with the player who has the Priority Deal marker and proceeds in Stock Round order until all players have passed. Once all players have passed, reassign the Priority Deal card as specified below (see 5.5) and then conduct a pair of Operating Rounds.

5.1.1 Selling Stock

During each of his turns in the Stock Round, a player may sell as many shares of stock as he wishes, subject to the limitations on Open Market holding. HOWEVER, PLAYERS MAY NEVER SELL STOCK OF COMPANIES THAT HAVE NOT YET OPERATED. Once a player has sold stock of a particular Company, he may not buy or exchange for stock in that Company for the remainder of the current Stock Round. Players may sell shares of different Companies in any order they choose.

18 Ardennes – Rails Through The Ardennes

Stock sales are always at the Current Market Value shown on the Stock Market. When selling more than one share of stock, the value received from the Bank is the same for all shares sold. Players may not choose to sell multiple shares of a single Company's stock as multiple transactions in the same turn of a Stock Round.

5.1.2 Buying Stock

After selling all the shares he wishes to sell, a player may then buy a single share of stock, subject to availability and limits on certificate and share ownership.

Once a player has bought stock, he may not sell any more stock in that turn of the Stock Round. Stock purchases are always at Current Market Value. When a player buys stock from a Company, he pays the Company Treasury. When a player buys stock from the Open Market, he pays the Bank.

5.1.3 Merging Minor Companies

A player may attempt to buy a share of a Public Company by merging a connected or collocated Minor Company into it, using the Minor Company's value in partial or full exchange. This exchange is conducted using the same rules and restrictions as for the merger and exchange of Minor Companies during 5-Share Company formation, except that the Public Company President may refuse to authorize the merger. A player may not attempt the exchange if he has sold stock in that Public Company during the current Stock Round.

If he refuses, the owner of the Minor Company has the option of exchanging instead for an Open Market share of the Public Company, assuming one is available. In the latter case, the Minor Company's trains are discarded to the Open Market, its station tokens are removed from the Map, any Ferry or Mine bonus tokens it acquired are returned to their original map locations, any Forts are permanently discarded, and its capital is returned to the Bank.

5.2 Bidding for Public Companies

At the start of each Stock Round in which there are unopened Public Companies available, and in which any player has sufficient assets to open one (at least f.280 and a qualifying Minor Company), all such players may bid for the right to open a Public Company.

5.2.1 Qualifying Minor Companies

At the start of the game there are two to four Minor Companies that may start each of the Public Companies (indicated by their matching liveries and base station [see 11.5]) and others may qualify by placing their second station token appropriately. When choosing a Public Company to start, the player may only choose one for which one of his Minor Companies has a station token (not necessarily its base station token) in one of the Public Company's qualifying Cities (see 11.5 and the mini-maps on the Company charters). This restriction is eliminated starting in the next Stock Round.

5.2.2 The Auction

Starting with the player who has the Priority Deal marker and proceeding in Stock Round order, each such player may select a Public Company and one of his qualifying Minor Companies and either:

- Bid a non-negative multiple of f.5 (including zero) to establish his claim;
- Compete for the right to open a Public Company that already has a bid (in which case he must bid at least f.5 more than the previous high bidder); or,
- Pass. A player who has fewer assets (cash plus saleable stock) than he would require to take any action must pass.

A player who passes in his turn may take a different action on his next turn unless all players have passed consecutively. Once all players have passed consecutively, this phase of the Stock Round concludes and each player pays the amount of his bid to the Bank and claims his Public Company: place the Public Company President's Certificate on the qualifying Minor Company's charter to indicate this.

Note that this process does not affect the placement of the Priority Deal marker. The Stock Round then continues normally, starting with the player who holds the Priority Deal marker.

18Ardennes – Rails Through The Ardennes

5.3 Forming a Public Company

a player who has won the right to form a Public Company must do so. THIS IS IN LIEU OF A NORMAL STOCK TURN IN WHICH HE SELLS AND THEN BUYS STOCK. A player who wins the right to open more than one Public Company must open one of them at each of his next turns in the Stock Round. A player who cannot fulfill his obligation to form a Public Company in his turn is bankrupt. To form a Public Company, the player performs the following steps:

- Sell stock to raise the cash with which he plans to start the Public Company (this is only required if the player starts his turn with less than the minimum necessary cash: however, the player may choose to sell stock to raise his cash to an amount that permits him to start the Public Company at a higher value).
- Declare the Public Company's Starting Value (f.140 to f.220) and pay twice the Starting Value (f.280 to f.440) to the Public Company's Treasury for its President's Certificate. He may sell stock to raise the necessary funds, though he is not required to do so.
- Exchange his Minor Company for **one** of the Public Company's single share certificates. If the Minor Company is worth less than the Public Company's Starting Value, the President must make up the difference from his own cash (e.g. if the Minor Company was valued at f.50, it is worth f.100 and the President would have to contribute between f.40 and f.120 from his own hand to the Public Company, depending on the Public Company's Starting Value). The Public Company does not "give change" if the Minor Company is worth more than a single share of stock.
- Take the Public Company's remaining shares and station tokens.
- Transfer all the Minor Company's assets (trains, bonus tokens, and residual capital) to the Public Company.
- Substitute one of the Major Company's station tokens for each of the Minor Company's station tokens on the map.
- Discard the Minor Company's Current Market Value token.

At the conclusion of this process, the player should have three shares of the Public Company (the President's Certificate and one other): this will be sufficient for the Public Company to operate in the next Operating Round.

5.3.1 Acquiring Additional Shares and Merging Additional Minor Companies

During the remainder of the current Stock Round, each player (including the President) may acquire additional shares of the newly-formed Public Company by buying them at full price from the Public Company using their personal cash (up to the 60% limit), or they may use Minor Companies in part exchange. The only restriction is that the Minor Company must be able to trace a route between one of its station tokens and one of the Public Company's station tokens, or one each of the Minor and Public Companies' station tokens must be collocated on the same tile.

An exchanged Minor Company is worth twice its Current Market Value, and—if this is less than the Public Company's Current Market Value—the President must make up the difference from his personal cash, which he pays to the Public Company's Treasury. As with the original merged company, the Minor Company transfers its assets to the Public Company: however, the Public Company has the option of declining any trains, stations, or bonus tokens that are offered. A declined station token is discarded (if it is in a Port or Mine City, it is replaced by the applicable bonus token). A declined Ferry or Mine bonus token is replaced in its original location (the station token which replaced it is returned to the Minor Company and therefore discarded) and may be claimed in any subsequent operating round. A declined Fort is permanently discarded.

A Company may not have station tokens in adjacent City circles on the same hex; therefore, the Public Company must decline any station tokens that would violate this rule. The President may retain station tokens on tiles with two separate City circles (Amsterdam, Rotterdam, Frankfurt, Paris, and Basel) so long as they remain separate: if such a City is upgraded to render the two City circles adjacent, one of the station tokens is removed and returned to the Public Company, without compensation.

If, as a result of such an exchange, the Public Company is in excess of the current train limit, it chooses which trains to discard in order to return to the train limit.

If a player trades a Minor Company worth the same as or more than a single share of the Public Company, the exchange is a straight swap: the Public Company does not "give change".

18 Ardennes — Rails Through The Ardennes

5.4 Change in Presidency

The President of a Company is the player who owns the most shares of the Company. If there is a tie between two or more players for most owned shares, the player who currently owns the President's Certificate is the President.

If at any time the President owns fewer shares than another player does, he must exchange the President's Certificate for two single share certificates owned by the other player. The new President receives the charter and all assets thereon. If two or more players are eligible to become President and have an equal number of shares, the player whose turn is the earliest using Stock Round order after the current President becomes the new President.

5.5 Ending the Stock Round

Except in a turn in which he is obligated to start a Public Company, a player always has the option of passing. A player who takes any action on his turn other than passing is guaranteed another turn. A player who passes is guaranteed another turn if any player subsequently takes an action on their turn other than passing.

When all players have passed consecutively, the Stock Round ends. Move the Current Market Value markers of Companies with stock in the Open Market one space down in value, starting with the highest-valued and moving down in Operating Round order. Give the Priority Deal marker to the player after the last player to have bought or sold a share. In the event that no one takes any action in the Stock Round (that is, the Stock Round consists entirely of a series of consecutive passes), the Priority Deal marker does not move. Move the round marker to the space marked "First Operating Round", and begin the first Operating Round (of two).

6 Sequence of Play—Operating Round

There are always two Operating Rounds after every Stock Round: indeed, the game concludes at the end of the second of two Operating Rounds, once the Bank has run out of money. In each Operating Round, the Guillaume-Luxembourg (if in play) operates (paying its f.25 fixed income to its owner), followed by all the Minor Companies in play, and finally the Public Companies.

Each Company operates in descending order of their Stock Market position. Companies whose stock tokens are co-located in a single space on the Stock Market operate in order from top to bottom.

Each Company operates once during each Operating Round. When all Companies have operated, players begin a new Operating Round or a new Stock Round, depending on the number of Operating Rounds already performed.

Each major section below (6.1 through 6.8) represents a discrete step in the Company's turn. Companies must perform their operations in strict conformance to this order, though not every step is required.

6.1 Converting a 5-Share Company to a 10-Share Company

If it is Phase 5 or later, and the Company has completed at least one previous Operating Round, a 5-Share Public Company may convert to a 10-Share Company. The Company receives its five additional shares from the Initial Offering. Each share of the Company is now worth 10 percent instead of 20 percent and thus pays half as much as previously.

Immediately after converting, the President has the option of acquiring additional shares of the Company, either by buying them with his existing cash, exchanging Minor Companies for them, or both, in the usual manner. However, he is limited to using his cash on hand and may not sell any of his other stock. He is not required to remain within the overall certificate limit, though the limit (which may have increased as a consequence of converting one or more Companies) will be enforced at the beginning of the next Stock Round.

If a Company acquires additional trains from exchanged Minor Companies, these are placed face-down and may not be used to earn revenue during the current Operating Round. After the Company has adjusted its Current Market Value, turn any such trains face-up. If the Company is now over its current Train Limit, it must discard excess trains of its choosing to the Open Market, whence they may be bought. A train inherited in this manner may be used in an exchange for a 4D-train.

6.2 Issuing Treasury Stock

If it is Phase 4 or later, and the Company has completed at least one previous Operating Round, a Public Company may issue one or more Treasury shares to the Open Market and receive their Current Market Value from the Bank.

18 Ardennes – Rails Through The Ardennes

Each time a Company issues Treasury stock in this step, its Current Market Value moves one space down in value for each share sold. A Company that has Treasury stock may issue it to the Open Market in any Operating Round.

6.3 Lay or Upgrade Track

Each Operating Round, a Company may place one or more yellow tiles, or upgrade one tile, depending on the type of Company and the game phase.

Companies place track by placing tiles on the map or upgrading previously placed tiles. At the beginning of the game, Companies may only place yellow tiles. Once a Company has bought a 3-train, Companies may upgrade yellow tiles to green tiles. Once a Company has bought a 5-train, Public Companies (only) may upgrade green tiles to brown tiles.

Minor Companies may place one yellow tile or upgrade one tile. Public Companies may place up to two yellow tiles or upgrade one tile. Companies must always upgrade tiles progressively: a tile must be upgraded to green before it can be upgraded to a brown tile.

Tiles (both yellow and upgraded) must maintain all connections and track existing prior to the upgrade. When placing a yellow tile in a hex that contains a railhead (a small triangle connecting to track in an adjacent hex), the yellow tile must connect to the railhead. When upgrading a previously placed tile, remove the old tile from the map: it is now available for a Company to use it again. When upgrading a pre-printed tile, place the upgrade tile directly on the map.

The general rule for both tile placement and tile upgrade is that the new track created must extend a route of any length for the operating Company. In the case of City tiles, the upgrade must extend a route or increase the value of a city on a route of the operating Company.

Once placed, a tile becomes part of the map and remains there until a Company upgrades it to another tile. A Company may not place or upgrade tiles in such a fashion as to cause any new track to run to a prohibited hexside. A prohibited hexside is any impassable (dark green) hexside, any ocean (blue) hexside, or any blank hexside of a grey hex.

Although there is a limit on the number of plain yellow track tiles (#7, #8 and #9) included with the game, this is not a hard limit: if necessary, borrow additional #7, #8 or #9 tiles from other games.

If an unimproved hex has a cost printed in it (f.20 in a blue triangle for river hexes, f.40 in a blue triangle for the Holland Deep [D8], or f.40 in a brown triangle for mountain hexes), the Company must immediately pay this cost as a part of placing the tile. A Company may only build or upgrade track that has an associated cost if it has sufficient funds to do so in its Treasury.

Hexes marked with a Town (●) or City (○) symbol or with a letter or group of letters may only have specific tiles placed on them. Companies may then only upgrade tiles placed on such hexes to specific other tiles. Companies may not use any tiles other than those specified to upgrade these hexes. Companies may not use the specified tiles to upgrade any other hexes (see table 11.2).

6.4 Additional Station Token Placement

A Company may place an additional station token, if it has one available, in any City circle unoccupied by another Company's station token to which it has a route, on a hex in which it does not already have a station token. A City circle is a white circular space on a City tile. A Company may place a station token in any such City circle regardless of what sorts of trains it owns (including none).

The cost of a station token placement is f.40 for a Minor Company and f.100 for a Public Company. The Company must immediately pay the necessary amount from its Treasury.

A Company may never place more than one station token in its turn in the Operating Round (the home station tokens placed at the beginning of the game do not count).

6.4.1 Ports and Ferry Rights

There are three Port Cities (Vlissingen [E5], Brugge [F4], and Dunkerque [G3]), indicated by the Ferry Rights symbol (⚓). When placing a tile in Brugge or Dunkerque, a Company must maintain the pre-printed connection to

18 Ardennes – Rails Through The Ardennes

the adjacent Ferry (the small white arrows in E3, F2, and G1). A Company that connects to a Ferry may claim Ferry Rights for that City. To do so, it must place a station token in the Port City, paying the normal cost for a station token (f.40 or f.100), which it exchanges for the Ferry Rights bonus token in the City circle. If the Company runs a route through the Port and terminates at the Ferry, it scores a bonus based on the type of train used on the route:

<u>Train Type</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>4D</u>
<u>Ferry Bonus</u>	<u>f.20</u>	<u>f.30</u>	<u>f.40</u>	<u>f.50</u>	<u>f.60</u>	<u>f.80</u>

Terminating the other end of the route at a second Ferry has no additional effect.

Each Ferry in a Port City is considered to be a separate piece of track: thus when Dunkerque is upgraded so as to connect to the second Ferry, a Company with Ferry Rights in Dunkerque may run two bonus routes, one to each Ferry. A Company that has claimed Ferry Rights in more than one Port City may run a bonus route to each Ferry in each Port.

Vlissingen has only one Ferry Rights bonus token and does not upgrade. Brugge and Dunkerque both upgrade: when they do, the second Ferry Rights bonus token is placed in the second City circle and may be claimed by another Company.

6.4.2 Mining Cities and Mining Rights

There are two Mining Cities (Charleroi [H10] and Saarbrucken [I21]), indicated by the Mining Rights symbol (⚙). A Company that connects to a Mining City may claim Mining Rights for that City. To do so, it must place a station token in the Mining City, paying the normal cost for a station token (f.40 or f.100), which it exchanges for the Mining Rights bonus token in the City circle. If the Company runs a route to or through the Mining City, it doubles the value of the Mining City.

A Company may run multiple bonus routes to or through an individual Mining City. If it has Mining Rights in both Mining Cities and runs a route that includes both, it doubles both Mining Cities.

Charleroi and Saarbrucken both upgrade: when they do, the second Mining Rights bonus token is placed in the second City circle and may be claimed by another Company.

6.4.3 Forts

There are four places (Metz and three Towns) that contain the Fort symbol (*). A Company may collect any Fort token that is on a route of the Company: in most cases this will be because the Company has just placed yellow track there. Unclaimed Forts remain on the tile and may subsequently be claimed by any Company in its Operating turn (including the original Company) that has a route to the tile.

Forts add their bonus value to the Company's earnings if the Company owns any train, and whose routes include Paris (M7), Strasbourg (J24), or both. It is not actually required to run such routes, nor need it own a train capable of doing so. Each Fort is worth f.10 for each of Paris and Strasbourg to a maximum of f.50. If the Company's routes include both, each Fort is worth f.20 to a maximum of f.100. Fort bonuses are not train revenue: they are bonus revenue that is added to the earnings for all the Company's trains.

6.5 Train Operation and Earnings Calculation

A Company that owns one or more trains now operates them and calculates the resulting earnings. A Company must calculate the maximum possible earnings using all its trains (not necessarily the maximum possible for any particular train if the Company owns more than one train). Calculate earnings as follows:

- Each train must operate on a route. A route consists of a continuous unbranched length of track, including on it a City containing the Company's station token (not necessarily at the beginning or end of the route). In order to score revenue, the route must also contain one or more other Cities (which may contain additional station tokens of the Company) or (in some instances) Towns.
- 2, 3, 4, 5, and 6-Trains count all Cities and Towns included in the route for revenue. The train number shows the maximum number of Cities that may be included in the route. Towns do not count against the

18 Ardennes – Rails Through The Ardennes

Train Number, though their revenue value is counted in the route. A route may both begin and end at a Town.

- A 4D-train runs a route of any length, so long as it is not blocked by either other Companies' station tokens or unclaimed bonus tokens. A 4D-train may reuse track used by the Company's other train. A 4D-train ignores Towns completely, and scores a maximum of four Cities on the route (at least one of which must have one of the Company's station tokens), ignoring any other Cities through which its route runs. The 4D-train scores the route normally, including Mining and TEE bonuses, and then doubles the result. If the 4D-train begins or ends its route at a Ferry arrow, it then adds the Ferry bonus (f.80).
- A 4D-train must score a Mine City to claim its Mining bonus. A 4D-train must begin or end its route at a Ferry arrow and score the Port City to score the Ferry bonus. A 4D-train must score the relevant map edge and Port Cities to claim TEE bonuses, and may only score such bonuses for the Cities it actually scores in which it has a station token: thus a 4D-train may score a maximum of four station tokens.
- A train may not use the same track more than once.
- A train may not run more than once to the same City or Town, including separate City circles on the same hex. However, the route between the City circle and the Town in the Ruhr (B16) is a legal route.
- A train may run to a City completely filled with other Companies' station tokens or unclaimed bonus tokens, but not through it. Base station and bonus tokens placed during game setup automatically occupy City circles in their hexes when the City tile is placed or upgraded and block routes through the City circle they occupy.
- Except for 4D trains, trains may not use track used by any of the Company's other trains in the same Operating Round. Trains may always run to or through the same Cities or Towns, provided they do not reuse any track used by the other train.
- The basic route value is equal to the sum of the values of all Cities and Towns included in the route. A route that includes Mining Cities in which the Company has Mining Rights (6.4.2) multiplies the value of the Mining Cities in which it has such rights by two. A route that includes a Port in which the Company has Ferry Rights (6.4.1) and terminates in the Ferry arrow adds the bonus applicable to the train used on the route. A route that includes one or both TEE routes (6.5.1) adds the appropriate bonus (f.30 or f.60) for each station token on the route.

The Company earnings are equal to the sum of the value of all the Company's train routes, plus any applicable bonus earnings for Forts (6.4.3).

6.5.1 Trans-Europ-Express (TEE) Routes

Trans-Europ-Express or TEE routes are routes that include certain Cities or Ferries on opposing map edges. The Ferries (marked with the letter "W") are considered on the western map edge: the corresponding eastern (marked with the letter "E" in a white semicircle) map edge cities are Cologne (D18), Frankfurt (E25), Mannheim (G25), and Karlsruhe (H26). Amsterdam (B8) and The Ruhr (B16) (marked "N" in a red outline) are considered on the northern map edge: the corresponding southern map edge cities are Paris (M7) and Basel (M27) (marked "S" in a red outline).

A train runs an East-West TEE route by running from one of the Ferries through the associated Port city and then to or through an Eastern city. An East-West TEE route must terminate in the Ferry arrow (thus, the Company must have Ferry rights in the Port City), but is not required to terminate in the Eastern City: it may overrun the Eastern city and score additional Cities and Towns beyond the first Eastern City it reaches.

A train runs a North-South TEE route by running a route that connects one of the two Northern cities to one of the two Southern cities. A North-South TEE route may overrun both the Northern and Southern cities on the route and score additional Cities and Towns.

A TEE route provides a bonus equal to f.30 per station token (**not** City!) on the route. A single train may score both an East-West and a North-South TEE bonus (e.g., by running from the Brugge Ferry to the Ruhr, Cologne, and Basel), and in this case the net bonus is doubled to f.60 per station token.

18 Ardennes – Rails Through The Ardennes

6.6 Dividend Payment

A Company may pay out or withhold its earnings. Earnings that are paid out are called dividends. If the Company pays dividends, the Bank pays each player a share of the dividends equal to the percentage of the Company represented by the player's shares. Thus, a Minor Company that pays dividends pays half to the President and retains half in its Treasury. 5-Share Public Companies that pay dividends pay 20 percent per share to each shareholder (including the Company). A 10-Share Public Company that pays dividends pays 10 percent per share to each shareholder (including the Company). If the Company withholds its earnings, the Bank pays the entire amount to the Company. Shares in the Treasury earn dividends for the Company, which are paid to the Company Treasury. Shares in the Open Market and the Initial Offering do not pay.

6.7 Current Market Value Adjustment

The President of the Company adjusts the Company's Current Market Value token, if necessary.

6.8 Train Buying

If a Company has fewer trains than its current Train Limit, it may buy trains from the Train Stack, from the Open Market (if available), or from another Company, up to its current Train Limit.

A Company always buys trains one at a time. To buy a train from the Train Stack or the Open Market, it must pay the face value of the available train it wishes to buy to the Bank from its Treasury. To buy a train from another Company, it must pay the other Company a mutually agreed price, which may be as little as f.1.

If a Company buys a new type of train from the Train Stack, a new phase begins and any adjustments pertinent to that new phase come into effect immediately after the Company buys the new train. Once any such adjustments are complete, the Company may buy additional trains, up to its current Train Limit.

Although the phases are numbered 2 through 6 for simplicity, phase 6 is initiated either by buying the first 6-train, or by buying or exchanging for the first 4D-train.

At the beginning of the game, the "Available Trains" are 2-trains. Once a Company buys the last 2-train, 3-trains become available. Once a Company buys the last 3-train, 4-trains become available. Once a Company buys the last 4-train, 5-trains become available. Once a Company buys the last 5-train, 6/4D-trains become available.

When a Company buys a new train from the Train Stack, it must buy the topmost train in the Train Stack, though it also has the option of buying a train from the Open Market if one is available. When 6/4D-trains are available, both are considered to be "topmost", and a 10-share Company may exchange a 4-train or a 5-train for the first 4D-train in lieu of buying it.

6.8.1 Train Obsolescence

When a Company starts Phase 4, it discards any 2-trains it owns. Any Companies that operated previously in the current Operating Round also discard any 2-trains they own. Companies that have not yet operated in the current Operating Round run any 2-trains they own one final time, and discard them immediately after the Dividend Payment step. Note that obsolete but undiscarded 2-trains do not count against the Company's Train Limit, nor may other Companies buy them.

When a Company starts Phase 6, all 3-trains are immediately discarded, whether they have run in the current Operating Round or not.

6.8.2 4D-Trains (10-Share Companies Only)

A 10-share Company (**only**) may buy a 4D-train as an alternative to a 6-Train. 4D-trains normally cost f.800: however, the Company buying the 4D-train may use a 4-Train, 5-Train, or 6-Train in part exchange. If so, it places the exchanged train in the Open Market, and the cost of the 4D-train is reduced to f.600. A 10-share Company may exchange a train to acquire a 4D-train when on train limit.

Only 10-share Companies may buy or own 4D-trains, and may own no more than one at a time.

18 Ardennes — Rails Through The Ardennes

6.8.3 Train Buying from Other Companies

As an alternative to buying a train from the Train Stack or the Open Market, the President may buy a train from another Company, at a mutually agreed price as little as f.1, and up to all its remaining cash. In a “mandatory train buying” situation, if the Public Company has no money at all, the President may use his cash on hand to buy the train, paying the other Company up to the face value of the train he is buying. However, he may not sell stock to raise additional cash: the maximum he may contribute is the actual cash on hand he has at the instant he must buy.

6.8.4 Mandatory Train Buying

A Public Company (not a Minor Company) that has operated in the current Operating Round **must** own a train at the end of its turn in the current Operating Round whether or not it has a route. If it has sufficient funds in its Treasury, it may buy any train or trains that are available from the Bank or the Open Market, or from another company, subject to its current Train Limit. Minor Companies are **not** required to own a train and therefore can never be in a “mandatory train buying” or “emergency money raising” situation.

6.8.5 Emergency Money Raising

If a Company does not have sufficient funds to buy a train from the Bank, the President must make up the difference from his own cash to allow the Company to buy the next train available from the Bank. If he has insufficient cash on hand, he must sell sufficient stock to raise the difference. The President may sell any of his own stock he wishes to raise the required amount, subject to the normal limitations on stock sales. If the operating Company had not previously completed a turn in an Operating Round, its shares cannot be sold, since it hasn't yet completed its first Operating turn. The President may not issue Treasury stock as part of this process, though (if otherwise permitted) he may have done so earlier in the current Operating Round. A President is never required to have issued Treasury stock, even if legal, in order to avoid an Emergency Money Raising.

The President may not sell sufficient stock in the operating Company to cause a change in presidency. However, he may cause a change in presidency of any other Company.

Note that—unlike in other games—a Company in a “mandatory train buying” situation is never required to buy a less expensive train in lieu of a more expensive train, even if the Company would have sufficient funds to buy the less expensive train without performing an Emergency Money Raising.

6.8.6 Bankruptcy

If, after selling all the stock he can sell, the President cannot raise sufficient cash to buy a train, he is bankrupt. Place his remaining holdings in the Open Market (the Current Market Value remains unaffected). Eliminate the player from the game and transfer the Presidency of any of his controlled Public Companies to the next eligible player.

If no such player exists (i.e., if no player holds two shares of one of the affected Companies), the Company's President's Certificate is placed in the Open Market (this is a notable exception to the normal rule precluding a Presidency from entering the Open Market). A player may buy the Presidency from the Open Market for twice the Current Market Value in the next Stock Round. As an alternative to buying the Presidency directly from the Open Market, a player who owns one share may buy an additional share (if available), and then perform a normal change-of-President exchange with the Open Market.

Players who own stock in such a Company may buy and sell it normally, and its stock continues to count against their certificate limit: all of the Company's existing assets (its station tokens, bonus tokens, trains, and cash) remain in place, and the Company operates on autopilot until a player becomes its President. A Company on autopilot which owns one or more trains does not place or upgrade track or place tokens, nor does it buy trains: the players jointly determine its best routes, pay dividends to the shareholders, and (if appropriate) adjust its Current Market Value. A Company on autopilot with no train only adjusts its Current Market Value downward.

If the Presidency of the Company for which the bankrupt player was buying a train shifts in this manner, its Treasury will contain the total amount raised by the now bankrupt President during his Emergency Money Raising. The new President must complete the Emergency Money Raising using his own resources and buy a train for the Company. If the Presidency ends up in the Open Market, the Bank makes up the difference: in the event that there are two or more train types available, the Bank acquires the least costly for the Company.

18Ardennes – Rails Through The Ardennes

7 Ending the Game

The game ends after the end of the last Operating Round of the turn in which the Bank runs out of money. This applies whether the Bank runs out of money during the Stock Round or during an Operating Round: in either event, play a full set of Operating Rounds. The game still ends even if the Bank subsequently becomes solvent. All players receive all revenues earned during the final set of Operating Rounds. At the conclusion of the final Operating Round, players calculate their net worth as follows:

- Calculate the total value of all shares of stock held by multiplying the final market value by the number of shares held. The Guillaume-Luxembourg is worth f.100. Minor Companies are worth twice their Current Market Value. Minor Companies whose Current Market Value is in the Grey Zone are worthless.
- Add total cash on hand.
- Ignore all assets (cash, bonus tokens, and trains) owned by Companies as they do not contribute to a player's net worth.

The total is the player's net worth. The player with the highest net worth wins the game.

If all players but one have gone bankrupt, the game ends immediately. The sole solvent player is the winner.

18Ardennes — Rails Through The Ardennes

8 Designer's Notes

18Ardennes has been kicking around the back of my head ever since 1826 was published. The salient feature of 1826 is that all the “action” takes place in the northern third of the map: some have suggested that the game is really about railroading in Belgium, with France added on as an afterthought. After a few of those conversations, it occurred to me that it might be possible to design a game at a slightly higher scale that covered mainly northern and northeastern France and adjacent areas.

The next impetus I received was in reading a history of the French railroads, *Histoire du réseau ferroviaire français* (Editions de l'Ormet). I had been aware that there had been extensive private rail building activity in France as in every other country, but I always assumed it had been swept aside after 1842, and especially after legislative implementation of the *Loi Freycinet* in 1851. Much to my surprise it turned out that there were several companies actively working in the areas supposedly reserved for the Nord and the Est, among others!

The other aspect of this project that intrigued me was the allohistorical aspect. I am very interested in history: I also am deeply intrigued by the role of contingency in history and—by extension—in alternate history. This time and place were ripe for alternative outcomes that might have led Europe—and the world—away from the path to global war in 1914: events that had tragic consequences for billions and whose aftershocks are even now being felt.

There are four major areas represented on the map: the constitutional monarchies of Belgium and the Netherlands; France (variously a monarchy of sorts, a republic of sorts, and an empire of sorts in the timeframe of interest); and Germany (itself a congeries of smaller states, later unified under Prussia into the revealingly-named “Empire of the German Nation”). Each of these four areas was—for a time—ruled by a conniving, ambitious, and occasionally erratic ruler: Léopold II, King of the Belgians (r. 1865-1909); Willem III, King of the Netherlands (r. 1849-1890); Napoléon III, Emperor of the French (r. 1852-1870); and Wilhelm II, German Emperor (r. 1888-1918). To paraphrase General Kenobi, “You will never find a more wretched [quartet] of scum and villainy.”

All of which is to say that France and Germany on the one hand, Belgium and the Netherlands on the other, need not have been at daggers drawn. With a more statesmanlike approach by Napoleon III (or someone else), or a less energetic one by Bismarck (the prime mover behind both Wilhelm I and II), Germany need never have either defeated France or unified under Prussian leadership.

Since all 18xx games are inherently allohistorical in nature, I take this as the basis for loosening the otherwise-predictable links between the various smaller companies (the minors) and the larger associated companies (the public companies).

8.1 Design and Development: From 1824 to 18EU

When I began working on 18Ardennes, I had the idea that I would make it somewhat like 1824, with a mix of small (minor), medium (5-share), and large (10-share) companies. At the start, there would be two 10-share companies (the Nord and the Est), corresponding to minors #8 and #9; three 5-share companies, corresponding to minors #4, #7, and #15; and ten other minor companies, of which eight were tied to three merger companies that would be formed later in the game (the Dutch, formed from #1 and #2; the Belgian, formed from #13 and #14; and the Prussian, formed from #3, #10, and #11). #6 and #5 would be exchangeable for reserved shares of the Nord and Est, respectively.

It didn't take long before this approach showed itself to be unwieldy, overarticulated, and (worse yet) boringly professional. But the most interesting aspect was the merger companies, and—after considering various possibilities—I decided to reduce all the companies to minors, thus making the basic mechanisms somewhat like those of 18EU. This was also serendipitous in that 18EU is my most popular design, with high penetration and replay value.

Naturally, I had the benefit of several subsequent designs that used 18EU elements, as well as the similar but independently developed 1861 by Ian D. Wilson. So I had the opportunity to design a game whose general contours would be familiar (lots of minors merging to form a few majors, early emphasis on local travel, late emphasis on mapedge-to-mapedge routes) while not merely being “18EU on a new map”.

In truth, 18Ardennes bears almost no resemblance to 18EU apart from these general features: partly this is by design (unlike in 18EU—but like in 1861—minor companies trade on the stock market and have an additional station token; unlike in 18EU—but like in 18West—a minor can operate until the end of the game), and partly by accident (it was not clear at the outset what effects the use of an “upward-only” auction for the minors would have).

18Ardennes — Rails Through The Ardennes

To be sure, 18Ardennes—like 18EU, but also like 18US and 18West—is about long-term route development, and effective capital and technology management (what I call “getting the right trains on the right companies at the right time”), rather than about the tactics of tile play. This is rendered easier by making 4-trains the first permanent train: without that, it’s hard to imagine making minors survive until the end—though of course it’s possible and—in 18West at least—not unheard of.

8.2 The Languages of 18Ardennes

18Ardennes covers a broad area of northwestern Europe. Except during a few brief periods—Charlemagne’s empire, and Napoleon’s—these lands have never been under a common sovereignty—though of course the European Union may change that presently. As a consequence, there has never been a common language, and indeed, even within some of the otherwise unitary political jurisdictions depicted, there has always been a certain amount of pulling and tugging. In the 19th century, the rise of what we now call “nationalism” was largely based on linguistic differences: whereas in 1830, the common religious heritage (Catholicism) of the Belgians unified them and set them apart from their Dutch (Calvinist) overlords, a hundred years later it was the linguistic differences between the (francophone) Walloons and the (neerlandophone) Flemings that had become the dominant fault line in Belgian society. Similarly, Alsace-Lorraine (or—if one prefers—Elsaß-Lothringen) had a primarily francophone population, but a substantial germanophone minority: both of these examples ignore, of course, the fact that “French”, “Dutch”, “Flemish”, and “German”, as languages, are largely the product of a State-imposed uniformity, rather than organically-created.

All of which is to say that the problem of what to call places is a profoundly thorny one, which agitates national politics in many present-day European states. In consequence, I have adopted the practice of using—as best I know—the current local name for each place depicted in the game—even where this is largely ahistorical (the use of Dutch place names in Flanders, for example, was not even officially recognized in Belgium until the 20th century). There are a number of exceptions: I consider it an affectation to use a local name for a place that has a recognized and commonly-used Anglophone name, and I am, after all, an Anglophone! So I’ve stuck with Brussels, Antwerp, Cologne and a few others.

However, in order to avoid accidentally insulting legates of alternate linguistic traditions, I have included some translated place-names in the city directory in the Appendix. The list is far from complete: again, I’ve attempted to follow common usage rather than attempting a comprehensive four-way lexicon. I trust that this will avoid the problems summarized in Severeid’s Law: “The chief cause of problems is solutions.”

18Ardennes – Rails Through The Ardennes

9 Acknowledgments, Credits and Copyright Notices

The 18Ardennes Integrated Game System (hereinafter referred to as “18Ardennes”) is © 2009 David G.D. Hecht, who is hereby declared the Author of 18Ardennes for all purposes. The map is © 2009 David G.D. Hecht. Other physical systems are © 2005-2009 John A. Tamplin. John A. Tamplin designed the tiles using rendering algorithms and tile dictionaries from Marco Rocci.

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- 1830, designed by Francis Tresham and Bruce Shelley and published by The Avalon Hill Game Company.
- 1835, designed by Michael Meier-Bachl and published by Hans-Im-Glueck-Verlag and Mayfair Games Inc.
- 1856 and 1870, designed by Bill Dixon and published by Mayfair Games Inc.
- 1850 and 1832, designed by Bill Dixon and published by John A. Tamplin.
- 1851, designed by Mark Derrick and published by Chris Lawson.
- 1861, designed by Ian D. Wilson and published by JKLM Games.

18Ardennes — Rails Through The Ardennes

Additionally, the Author is indebted to Chris Lawson, the publisher of numerous 18xx Game Kits, for his contributions to physical systems design, in particular the simplified green plain track upgrade tiles and the Earnings Chart.

- 1829 and 1853 are trademarks of Hartland Trefoil Ltd.
- 1830 is a trademark of The Avalon Hill Game Company.
- 1835 is a trademark of Hans-Im-Glueck-Verlag.
- 1856 and 1870 are trademarks of Mayfair Games Inc.
- 1850 and 1832 are trademarks of John A. Tamplin.
- 1851 is a trademark of Chris Lawson.
- 1861 is a trademark of JKLM Games.

Francis Tresham and Hartland Trefoil Ltd originated the 18xx Rail Tile Game System.

The “Name Game” was an informal contest to determine a suitable name for this game. My thanks to all the participants, and to the ultimate winner, Dave Berry.

Use of trademarks without acknowledgment is not intended to disparage or challenge the intellectual property claims made by authors or publishers.

The above enumeration is not intended to be exhaustive. Enumeration of certain individuals or companies is not intended to disparage others.

10 Dedication: In Memoriam Geert Lagrou (1965-2007)

No game set in the “beer country” of Belgium, the Netherlands, northeastern France, and western Germany would be complete without acknowledgment of one of the great beer connoisseurs of our time: Geert Lagrou (30 September 1965—31 August 2007). I believe he would have appreciated this game.

Alas, it has now been nearly two years since the 18xx world lost our good friend Geert. I encountered Geert by email before meeting him: once I did (at the Liège Rail Con in October 2006), he generously opened his heart and home (to say nothing of his beer cellar) to me. Alas, I knew him for far too short a time before he was taken from us.

Geert, I will miss you, as will all those whose lives you touched. I will raise a glass of fine Belgian beer to you when the occasion permits. The peace of God be with you, my friend.

18Ardennes – Rails Through The Ardennes

11 Appendices

11.1 Game Phases

Ph	Tiles	Trains	Qty	Cost	Rusted by	Rusts	Train Limit	Other Events
2	Y	2	15	f.100	4	-	4/2	-
3	Y/G	3	7	f.200	6/4D	-	4/2	Public Companies start as 5-share.
4	Y/G	4	5	f.400	-	2	3/2	May issue Treasury shares.
5	Y/G/B	5	3	f.500	-	-	2/2	May convert to 10-share.
6	Y/G/B	6/4D	U	f.600 / f.800	-	3	2/2	10-Share Companies may acquire 4D-trains (buy or exchange 4/5/6)

11.2 Tiles and Upgrades

Hex Type	Unimproved	Yellow Tiles	Green Tiles	Brown Tiles
Plain	Empty hex	7, 8, 9	80, 81, 82, 83	-
Town	Dot (●)	3, 4, 58	141, 142, 143, 144	-
City	Circle (○)	5, 6, 57	14, 15, 619	63
Y-City	Circle (○) and “Y”	201, 202, 621	207, 208, 622	216
Brussels	Circle (○) and “Y (B)”	201, 202, 621	207, 208, 622	220
Amsterdam	-	“AMS”	SOH2	SOH9
The Ruhr	-	“RUH”	RUH2	RUH3
Paris	-	“P”	580	583
Basel / Frankfurt	-	“T”	405	431

18 Ardennes – Rails Through The Ardennes

11.3 The Minor Companies

Minor Company	No.	Nickname	Starting City	Can Form
Hollandse IJzeren Spoorweg Maatschappij	1	Holland Railway	Amsterdam (B8-W)	NL
Nederlandsche Rijnspoorweg-Maatschappij	2	Dutch Rhenish	Amsterdam (B8-E)	NL
Rheinische Eisenbahngesellschaft	3	German Rhenish	Cologne (D18)	BE / NL / P
Großherzoglich Badische Staatseisenbahnen	4	Badische	Mannheim (G25)	BY
Compagnie de Strasbourg à Bâle	5	Alsatian	Strasbourg (J24)	BY / E
Compagnie du Nord-est (Groupe Philippart)	6	Northeastern	Lille (H6)	BE / N
Pfalzbahn	7	Palatine	Saarbrücken (I21)	BY / E
Ligne de Paris à Douai et Lille	8	Paris-Douai-Lille	Paris (M7-W)	N
Compagnie de Paris à Strasbourg	9	Paris-Strasbourg	Paris (M7-E)	E
Cöln-Mindener Eisenbahn-Gesellschaft	10	Cologne-Minden	Cologne (D18)	P
Bergisch-Märkische Eisenbahn-Gesellschaft	11	Berg-Mark	The Ruhr (B16)	P
Compagnie du chemin de fer des Ardennes et de l'Oise	12	Ardennes	Reims (K11)	E
Société Anonyme des chemins de fer d'Anvers à Rotterdam	13	Antwerp-Rotterdam	Antwerp (E9)	BE / NL
Grand Central Belge	14	Belgian	Brussels (F10)	BE
Großherzoglich Hessischen Staatseisenbahnen	15	Hessian	Frankfurt (E25)	BY / P

11.4 The Public Companies

Company Name	Eligible Minors	Abbr	Translation	Livery
Königlich Bayerische Staats-Eisenbahnen	4, 5, 7, 15	BY	Bavarian State	Light Blue
Compagnie des chemins de fer du Nord	6, 8	N	Northern	Brown
Compagnie des chemins de fer de l'Est	5, 7, 9, 12	E	Eastern	Orange
Maatschappij tot Exploitatie van Staatsspoorwegen	1, 2, 3, 13	NL	Dutch State	Yellow
État Belge	3, 6, 13, 14	BE	Belgian State	Dark Green
Preußische Staatseisenbahnen	3, 10, 11, 15	P	Prussian State	Dark Blue

18 Ardennes – Rails Through The Ardennes

11.5 The Cities

Name on Map	Other Names	XY	Type	Base	Qualifying Start City	Edge
Amsterdam	-	B08	AMS	1 (W), 2 (E)	Dutch	North
Arnhem-Nijmegen	Arnhem-Nimègue	B12	-	-	Dutch	-
The Ruhr	Ruhrgebiet	B16	RUH	11	Prussian	North
Rotterdam	-	C07	Y	-	Dutch	-
Cologne	Köln, Keulen	D19	Y	10	Prussian	East
Vlissingen	Flessingue, Flushing	E05	Grey Port	-	Dutch	West
Antwerp	Anvers, Antwerpen	E09	Y	13	Belgian / Dutch	-
Aachen	Aix-La-Chapelle, Aken	E15	-	3	Belgian / Dutch / Prussian	-
Frankfurt-am-Main	Francfort-sur-le-Main	E25	T	15	Bavarian / Prussian	East
Brugge	Bruges	F04	Port	-	Belgian	West
Brussels	Bruxelles, Brussel,	F10	Y (B)	14	Belgian	-
Dunkerque	Dunkirk, Duinkerken	G03	Port	-	Northern	West
Mannheim- Ludwigshafen	-	G25	Y	4	Bavarian	East
Lille-Roubaix- Tourcoing	Rijsel-Robaais- Toerkonje	H06	Y	6	Belgian / Northern	-
Charleroi	-	H10	Mine	-	Belgian	-
Karlsruhe	-	H26	-	-	Bavarian	East
Saarbrücken	Sarrebruck	I21	Mine	7	Bavarian / Eastern	-
Metz	-	J18	Fort (x2)	-	Eastern	-
Strasbourg	Straßburg	J24	Y	5	Bavarian / Eastern	-
Amiens	-	K05	-	-	Northern	-
Reims	Rheims	K11	Grey	12	Eastern	-
Paris	Parijs	M07	P	8 (W), 9 (E)	Northern / Eastern	South
Basel	Bâle	M27	T	-	-	South

18Ardennes – Rails Through The Ardennes

11.6 The Towns

Name on Map	Other Names	XY	Pre-Printed	Fort
Haarlem	Harlem	B06	Yes	-
Eindhoven	-	D12	-	-
Mönchengladbach	-	D14	-	-
Maastricht	-	E13	-	-
Bonn	-	E19	-	-
Koblenz	Coblenz	E21	-	-
Mainz	Mayence	E23	-	-
Gent	Gand	F06	-	-
Liège	Luik, Lüttich	F14	-	-
Namur	Namen	G11	-	-
Trier	Trèves	G19	-	-
Boulogne-sur-Mer	-	H01	Yes	-
Calais	-	H02	-	-
Mons	Bergen	H08	-	-
Luxembourg	Luxemburg, Lëtzebuerg	H18	-	-
Arras	Atrecht	I05	-	-
Douai	Dowaai	I07	-	-
Charleville-Mézières	-	I13	-	-
Saint-Quentin	Sint-Kwintens	J08	-	-
Nancy	-	K19	-	-
Freiburg-im-Breisgau	Fribourg-en-Brisgau	K27	-	-
Épinal	-	L22	-	Yes
Mulhouse	Mülhausen	L26	-	Yes
Rouen	-	M03	Yes	-
Troyes	-	M13	Yes	-
Belfort	Beffert	M23	-	Yes