

Cost	Primary Producer	Terrain	Output
	<b>Woodcutter</b>	Woods	
	<b>Quarry</b>	Rock	
	<b>Clay Pit</b>	Shore	
	<b>Mine</b>	Mountain	
	<b>Oil Rig (Research)</b>	Sea	

Cost	Secondary Producer	Input	Research	Output	Max
	<b>Sawmill</b>				6
	<b>Coal Burner</b>	Any two of:			6
	<b>Papermill</b>	Any two of:			1
	<b>Stone Factory</b>				6
	<b>Mint</b>				1
	<b>Stock Exchange</b>				6
	<b>Wagon Factory</b>				1
	<b>Truck Factory (Research)</b>				1
	<b>Raft Factory (Shore)</b>				1
	<b>Rowboat Factory (Shore, Research)</b>				1
	<b>Steamer Factory (Shore, Research)</b>				1

Cost	& Cetera	Input	Output	Max
	<b>Airport</b>			1
	<b>Bomb Factory</b>			1
	<b>Power Plant</b>	One of  or	Electricity	1
	<b>MBA Univ.</b> Terrain: 1 per type			1
	<b>Pearl Fishery</b> Terrain: Sea			1
	<b>Quarry</b>			1
	<b>Atelier (Artist)</b>	Table at right		1

Phase	Cost	Produce	Conditions
Production			Empty Pasture (No: bldg, goods, other transport. OK: roads, bridges, walls and home marker.)
			Goods on tile. If no transporter, they are used by the game and disappear.
Building		<b>Road</b>	Between two tile centers
		<b>Bridge</b>	Build over a river
		<b>Wall</b>	Single color, not between 2 sea hex, from one side. (2 <sup>nd</sup> wall – 2 stones; 3 <sup>rd</sup> wall – 3 stones, etc.; from sea: +2 stones)
		<b>Demolish Wall</b>	Demolish wall (2 walls – 3 boards; 3 walls – 4 boards, etc.; from sea: +2 sets)
Wdr	Goods at home with transporter		Wonder Bricks (1 for 1 <sup>st</sup> , +2 for 2 <sup>nd</sup> , +3 for 3 <sup>rd</sup> , 5 <sup>th</sup> row: 2 for 1 <sup>st</sup> , etc.)

## Roads & Boats Player Aid by Sterling Babcock, v.4.0

<b>Start Setup:</b>	         	
Mines		
Research	Cost	Produce
 +	 	<b>New Shaft</b> in an existing mine
When building mines or new shafts, add one of these mixtures to the mine:		
Research	Mixture	
None	Normal Mine	3  and 3 
	Specialized Mine	4  or 4 
	Big Mine	5  and 5 
Game Phases		
<b>1. Production</b>		
<ul style="list-style-type: none"><li>• Animal Reproduction</li><li>• Goods &amp; Transporters</li><li>• Research</li><li>• Factory Upgrades</li></ul>		
<b>2. Movement</b>		
<b>3. Building</b>		
<ul style="list-style-type: none"><li>• Buildings (1 per hex)</li><li>• New Mine Shafts</li><li>• Roads, Bridges, Walls</li></ul>		
<b>4. Wonder</b>		
<ul style="list-style-type: none"><li>• (&amp;cetera) Trade between home markers</li><li>• Player Bricks (turn order)</li><li>• Finish with Neutral Brick</li></ul>		

& Cetera Expansion		
Atelier Input	Out	Max
		1
		1
		1
		1
		1
		1
		1

Cost	&Cetera Production
	<b>Fundamental Research</b>
	<b>Research (With fundamental research)</b>
	<b>Demolish Bldg</b>
	<b>Bombproof Bldg</b>
	<b>Power Line</b>
	<b>Train Fare</b>

**Electricity:** Doubles primary production.  
**Manager:** Doubles Max of secondary producer.  
**Exhibition:** Move 1 over land and through walls. Carry 1 of each art. Exhibit at others home & vanish. Successful if more art than previous (minimum 3).  
**Train:** Move to any hex on track as full movement.

Movement			
Transporter	Carry	Move	Terrain
<b>Donkey</b>	2	1	No Road
<b>Wagon</b>	3	3	Road
<b>Truck</b>	6	4	Road
<b>Raft</b>	3	3	Sea / River
<b>Rowboat</b>	5	4	Sea / River
<b>Steamer</b>	8	6	Sea / River
<b>Plane</b>	4	See Planes	/ Empty
<b>Exhibition</b>	Art	1	Any Land

**Transporters:** Limit 8 Total, 5 Land, 5 Sea, 3 Air, 3 Art. **Geese** may follow transporters. **Wall** will push boat to sea. **River:** Show which side.

Determine Play Order	
1) Temple Order: Closest to the temple starts; each may move to end. May not move farther than prior player.	2) Play Order: Farthest from temple starts; choose any position up to player count.

Wealth Points	
Game End: Immediately when brick is built on # of players	
For goods on transporters:	10 WP  40 WP  120 WP
Your bricks on row	
+ 10 WP per Wonder row as follows:	Other non-neutral bricks on row
	0 1 2 3 4 5+
	1 10 10 10 10 10
	2 5 6 7 8 8
	3 3 5 6 6 7
	4 2 4 5 5
+ WP per art per successful exhibition	
Successes	0 1 2 3 4 5
WP / art	20 40 60 80 100 120

**Other Terrain:**  
**Desert:** Only roads and walls until turns to pasture at Irrigation  
**Pouder:** Alternates sea / land based on wonder row. Acts as sea for walls. Inhibits transporters  
**City:** Two buildings. Acts as pasture, shore. Surrounded by water. (Needs bridge & road to connect.)  
**Plane (Movement Phase)**  
**Fly:** Load 4 goods, and then take off, air drop anywhere. Land at any airport, or hex with no unattended geese and no bldg.  
**or Taxi:** No goods, move 1 hex on road or between 2 sea hexes.