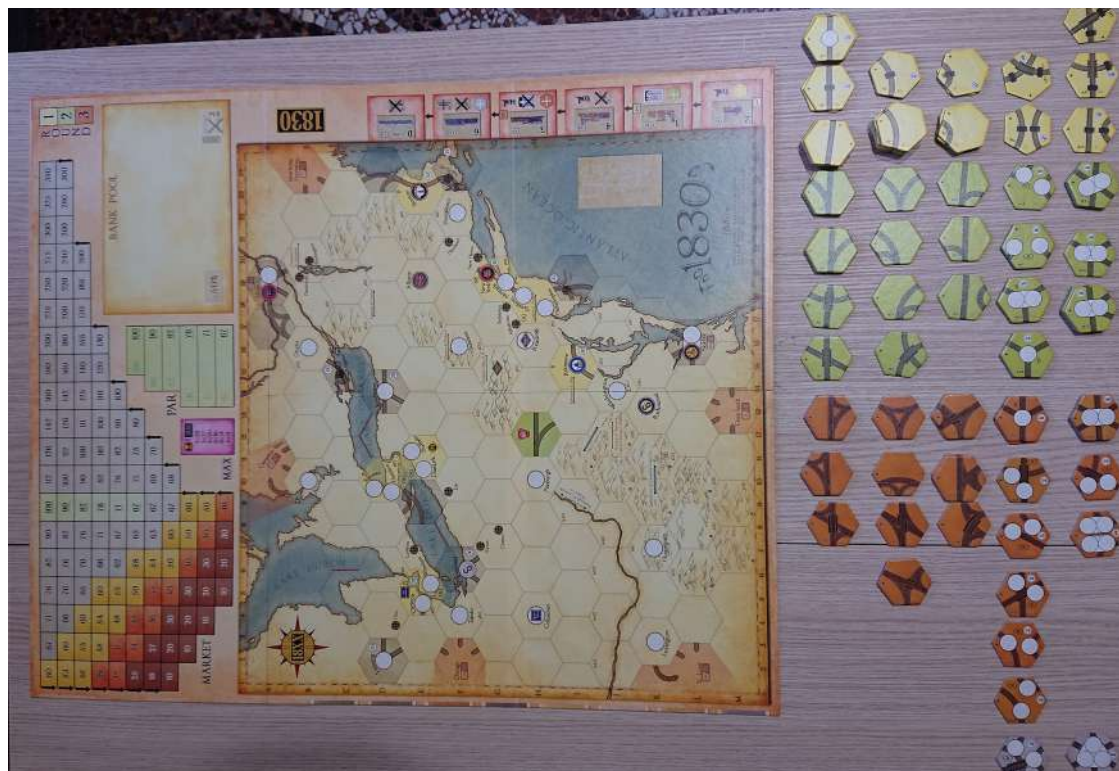


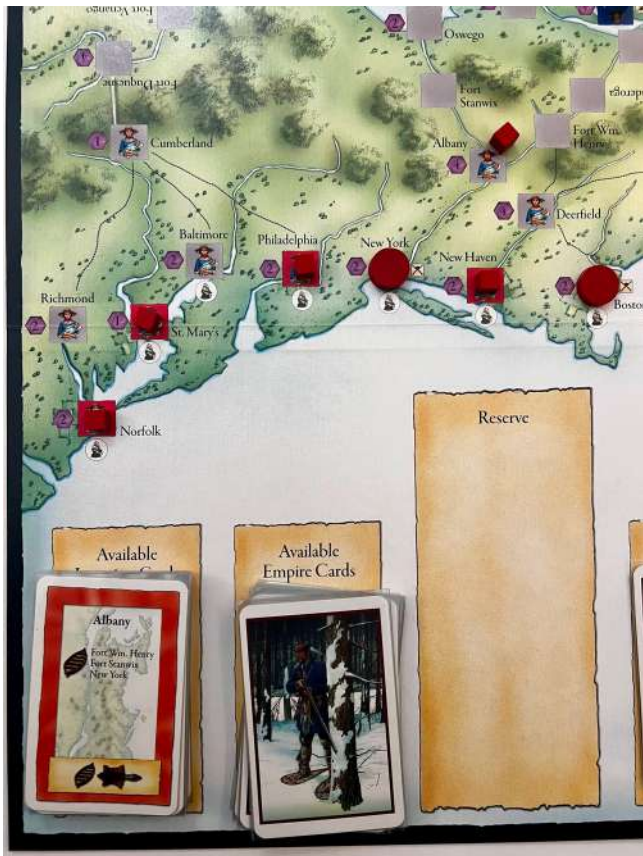
Pictures of games cited in the article, with the exception of the 3 main case studies. The pictures are presented in alphabetical order.

1830



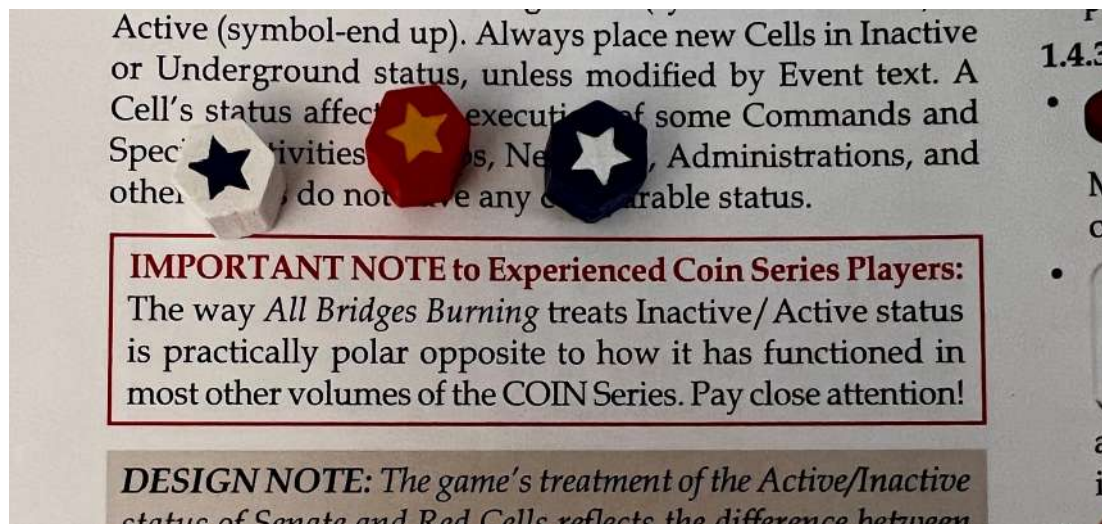
The tiles used to upgrade the train tracks in most 18XX games are displayed on one side of the board, which may pose challenges for players situated far from them in accurately assessing the remaining tiles and their quantities.

A Few Acres of Snow



In *A Few Acres of Snow*, locating the places mentioned on a card on the board can be challenging, as the cards only display the names without indicating their positions.

All bridges burning



In the *All Bridges Burning*'s manual there's an explicit emphasis on the deviation from the convention seen in other COIN series games.

Autobahn



In *Autobahn*, the values of cities need to be updated whenever a section of a connected highway of a different color is built or upgraded. However, there's no built-in mechanism to track which cities have already been updated, leading to frequent instances of forgetting to update the values.

Bitoku



The board of *Bitoku* is notably overcrowded, featuring intense spatial contrast and high color saturation. While visually appealing, the intricately detailed background can overwhelm the visual system.

Brass: Birmingham



The *Brass: Birmingham* board is dark, with low spatial contrast and minimal color differentiation between the backgrounds of the depicted town names.

We would like to thank Sebastian Marciniak ([BGG link](#)) for the photo.

Cuba Libre

3rd Printing

26 July

Inurgent Operations

Rally (3.3.1) + Infiltrate?

Purpose: Augment or recover friendly forces.
Location: Provinces or Cities without Support.
Cost: 1 Resource per space selected.
Procedure: Place 1 Guerrilla or replace 2 with a Base. If Base—instead either place Guerrillas up to twice Population plus twice Bases or flip all Guerrillas Underground.

March (3.3.2) + Infiltrate?

Purpose: Move friendly Guerrillas.
Location: Any spaces.
Cost: 1 Resource per destination City, Province (ECs 0).
Procedure: Move Guerrillas into adjacent spaces. If destination has Support or is EC, and if moving Guerrillas plus cubes there exceed 3, Activate the Guerrillas.

Attack (3.3.3) + Ambush?

Purpose: Eliminate enemy forces.
Location: Any spaces with Guerrilla and enemy.
Cost: 1 Resource per space selected.
Procedure: Activate all Guerrillas. Roll a die—equal to or less than the number of Guerrillas removes 2 enemy pieces (Bases last, cubes protect Casinos). If "1", place 1 Guerrilla. Take any Cash removed.

Terror (3.3.4) + Kidnap?

Purpose: Neutralize support or economic activity.
Location: Any spaces with Underground Guerrillas.
Cost: 1 Resource per City or Province selected (ECs 0).
Procedure: In each selected space, Activate 1 Underground Guerrilla. If Province or City—add a Terror marker and shift Support/Opposition 1 level toward Active Opposition. If un-Sabotaged EC—place Sabotage.

Special Activities

Infiltrate (4.3.1) max 1 space

Purpose: Lead Troops or Police to defect.
Accompanying Op: Rally or March.
Location: A space without Support (including an EC) with or next to an Underground 26 July Guerrilla.
Procedure: Remove or replace 1 cube there—Police first—with a 26 July Guerrilla. Take any Cash removed.

Ambush (4.3.2) max 1 space

Purpose: Ensure Attack success.
Accompanying Op: Attack.
Location: An Attack space with an Underground 26 July Guerrilla.
Procedure: The Attack activates 1 Underground Guerrilla only and automatically succeeds (do not roll). Place a 26 July Guerrilla.

Kidnap (4.3.3) max 1 space

Purpose: Take money from Syndicate or Govt.
Accompanying Op: Terror.
Location: A City, EC, or open Casino space where Terror Op and 26 July Guerrillas exceed Police.
Procedure: Transfer to 26 July a die roll in Resources or a Cash marker, from Syndicate if Casino or from Govt if City or EC. Close 1 Casino there.
After final Propaganda: Closest to goal wins (7.3).

Government

COIN Operations

Train (3.2.1) + Transport?

Purpose: Augment Government forces and Support.
Location: Any Provinces or Cities.
Cost: Per US Alliance, 2 to 4 Resources per space.
Procedure: At each selected City or Govt Base space, place up to 4 cubes. Then, in up to 1 selected space, replace 2 cubes with 1 Govt Base or—if Troops, Police, and Control—buy Civic Action.

Garrison (3.2.2) + any Special Activity?

Purpose: Protect ECs and recapture among Cities.
Location: Any ECs or Cities.
Cost: Per US Alliance, 2 to 4 Resources total.
Procedure: Move any cubes to any ECs or Cities. In each EC, Activate 1 Guerrilla for each cube there. If desired, conduct a free Assault in 1 EC.

Sweep (3.2.3) + any Special Activity?

Purpose: Enter areas to locate enemy, gain control.
Location: Any Cities or Provinces.
Cost: Per US Alliance, 2 to 4 Resources per space.
Procedure: Move any Troops into adjacent selected spaces. Then Activate 1 Guerrilla for each cube there. Forest—Activate 1 for every 2 cubes.

Assault (3.2.4) + any Special Activity?

Purpose: Eliminate enemy forces.
Location: Any spaces.
Cost: Per US Alliance, 2 to 4 Resources per space.
Procedure: In each space, remove 1 Active Guerrilla or Base for each Troops cube (Bases last). City or EC—Remove 1 piece for every cube. Mountain—Remove only 1 for every 2 Troops. Take any Cash removed.

Special Activities

Transport (4.2.1) 1 space to 1 space

Purpose: Mass Troops quickly for an Operation.
Accompanying Op: Any.
Location: Any.
Procedure: Move up to 3 Troops from a City or Base to any 1 space.

Air Strike (4.2.2) Not if Embargoed max 1 space

Purpose: Destroy exposed Insurgent unit.
Accompanying Op: Garrison, Sweep, or Assault.
Location: Any 1 Province or EC.
Procedure: Remove any 1 Active Guerrilla or Base (Bases last, including obsoleting a Casino).

Reprisal (4.2.3) max 1 space

Purpose: Reduce Opposition, displace Guerrillas.
Accompanying Op: Garrison, Sweep, Assault.
Location: Any 1 Govt-Controlled space.
Procedure: Add a Terror marker to the selected space and shift Opposition 1 level toward Neutral. Relocate 1 Guerrilla from there to an adjacent space.

Victory (7.0)

Government: All Cities at Active Support and Total Support exceeds 18.
26 July: Total Opposition plus its Bases exceeds 15.
Directorio: DR Controlled Population plus Directorio Bases exceeds 9.
Syndicate: Syndicate has more than 7 Casinos open and more than 30 Resources.
After final Propaganda: Closest to goal wins (7.3).

Cuba Libre comes with detailed cheat sheets; however, these are densely packed with text, and searching for clarifications within them can decelerate the game's pace.

4

S.I.M.

Word of torture:
Remove Support from a space with no Police.

Military intelligence gleans leads:
Until next Propaganda,
Police Sweep and Assault as if Troops.

GOVERNMENT MOMENTUM

In Cuba Libre the turn order for the next players is indicated on the event card, significantly reducing the likelihood that players will proceed with their turn without flipping an event card.

Expeditions



In *Expedition*, players construct a tableau of cards with varying powers taking them from the table between map tiles. Understanding each player's capabilities requires knowledge of the cards in their tableau. However, since cards are placed in front of their owner and their effects are described in small text, it can be challenging to discern what each card does.

We would like to thank Hardboiled Gregg ([BGG link](#)) for the photo.

La Belle Époque



In *La Belle Époque*, the score track is split into three smaller tracks—units, tens, and hundreds—where players place tokens that represent their nation's flag. The combination of having three separate tracks and the issue of tokens being visually similar and overlapping complicates the process of quickly and accurately calculating scores, despite the scores being openly available information.

Machina Arcana Second Edition



In *Machina Arcana*, players interact with items depicted on the boards, each having different interaction costs and effects. These costs and effects are often forgotten by players. Additionally, the board lacks reminders for the costs and effects of the interaction spots.

Move	① per map space	Move in any direction (<i>diagonal or orthogonal</i>) to an adjacent, unoccupied passable space.	Activate trap lever	②	<ul style="list-style-type: none"> Attack all units on top of trapped spaces on your map tile for 3 Put a destroyed token on top of the trap lever.
Use inventory	③	Unequip all of your items, equip any number of main items, then upgrade or augment any number of equipped items. Give any number of items to any adjacent explorers.	Activate event space	③	<ul style="list-style-type: none"> Restore 1 essence Draw the top card from the explorer event deck Resolve its «enters play» abilities If it is a binding event, place it next to your explorer card, otherwise place the card face up on top of the destroyed explorer event deck Put a destroyed token on top of the event space.
Trade	②	You can give and receive any number of items from an adjacent explorer.	Activate chest	③	<ul style="list-style-type: none"> Restore 1 essence Draw the 2 top items from any item deck(s) From those 2 cards choose 1. You may either destroy or place it on top of the corresponding item deck Keep the remaining card or give it to an adjacent explorer You can immediately equip kept card as a main item if it's of the item type based on your class: Bruiser: weapon, Gunman: apparel, Mystic: artifact, Crafter: any item type Put a destroyed token on top of the chest.
Exit map tile	②	Remove your figure from the playing area, skip your turn and your Spawn phase rolls.	Activate workbench	③	<ul style="list-style-type: none"> Draw the 3 top items from any item deck(s) You can swap any of drawn cards with the items from your inventory Choose 1, then keep it or give it to an adjacent explorer Destroy any number of remaining cards, then place the rest on top of their corresponding item decks in any order Resolve <i>use inventory</i> effect for free Put a destroyed token on top of the workbench.
Explore new map tile	②	Draw the top map tile and join it with your exploring map tile edge to a direction symbol.	UTILIZE THESE MAP ELEMENTS TO YOUR ADVANTAGE:		
Play active abilities	COST	You can play active abilities from: <ul style="list-style-type: none"> Your explorer card Your bound explorer events Consumable items Equipped items Current chapter Current explorer event 	Exploding barrel	<p>It is a special type of unit that can only be attacked.</p> <p>If the attack roll on an exploding barrel is at least 1:</p> <ul style="list-style-type: none"> Attack each unit adjacent to the exploding barrel for 3 Put a destroyed token on top of the exploding barrel <p>When a unit is pushed or pulled into an exploding barrel, treat it as though it is hit.</p>	
Open / close door	②	If a door is open (<i>no tokens on it</i>), close it by placing a closed door figure on it. If a door is closed (<i>closed door figure on it</i>), open it by removing the closed door figure.	Pit	<p>A pit is a special type of passable space.</p> <p>A unit that moves, is teleported to, is pushed or pulled into a pit is destroyed. Mindless monsters will never move themselves into a pit.</p>	
Destroy closed door	④	Replace the closed door figure with a destroyed door token.	Rubble	<p>Rubble is an impassable space that obstructs the line of sight.</p>	
Activate unlit chapter space	② 3+	If current chapter is not blocking, and if exit token is not placed on any map tile: <ul style="list-style-type: none"> Flip the current chapter, and resolve its «enters play» abilities. Put a destroyed token on top of the chapter space. 	Wall	<p>A wall is a type of map space border which separates spaces and obstructs the line of sight.</p>	
Activate lit chapter space	①	If current chapter is not blocking, and if exit token is not placed on any map tile: <ul style="list-style-type: none"> Flip the current chapter, and resolve its «enters play» abilities. Flip the light token to the destroyed side. 			
Seal spawn space	③ 4+	<ul style="list-style-type: none"> Decrease monster threat by 1 If there is a unit on top of it, destroy it Put two destroyed tokens on top of it Resolve light chapter effect (put a light token on a chapter space on your map tile). 			
Activate recharge station	①	<ul style="list-style-type: none"> Roll the recharge die Possible results: restore 1 health, restore stamina or nothing happens Put a destroyed token on top of the recharge station. 			

In the player aid, the interaction spots are listed in a random order and are presented in textual form rather than being represented by their corresponding icon or picture.

Magic: the Gathering



In *Magic: The Gathering*, cards feature a designated area for conveying information, such as the card's effect, and a separate space dedicated to aesthetics and theme, which includes card art and lore text.

Maquis



In *Maquis*, players may forget to move the round tracker (the blue cube) at the start of the turn, an activity that feels trivial, because they are engrossed in planning their moves, which is a more significant activity.

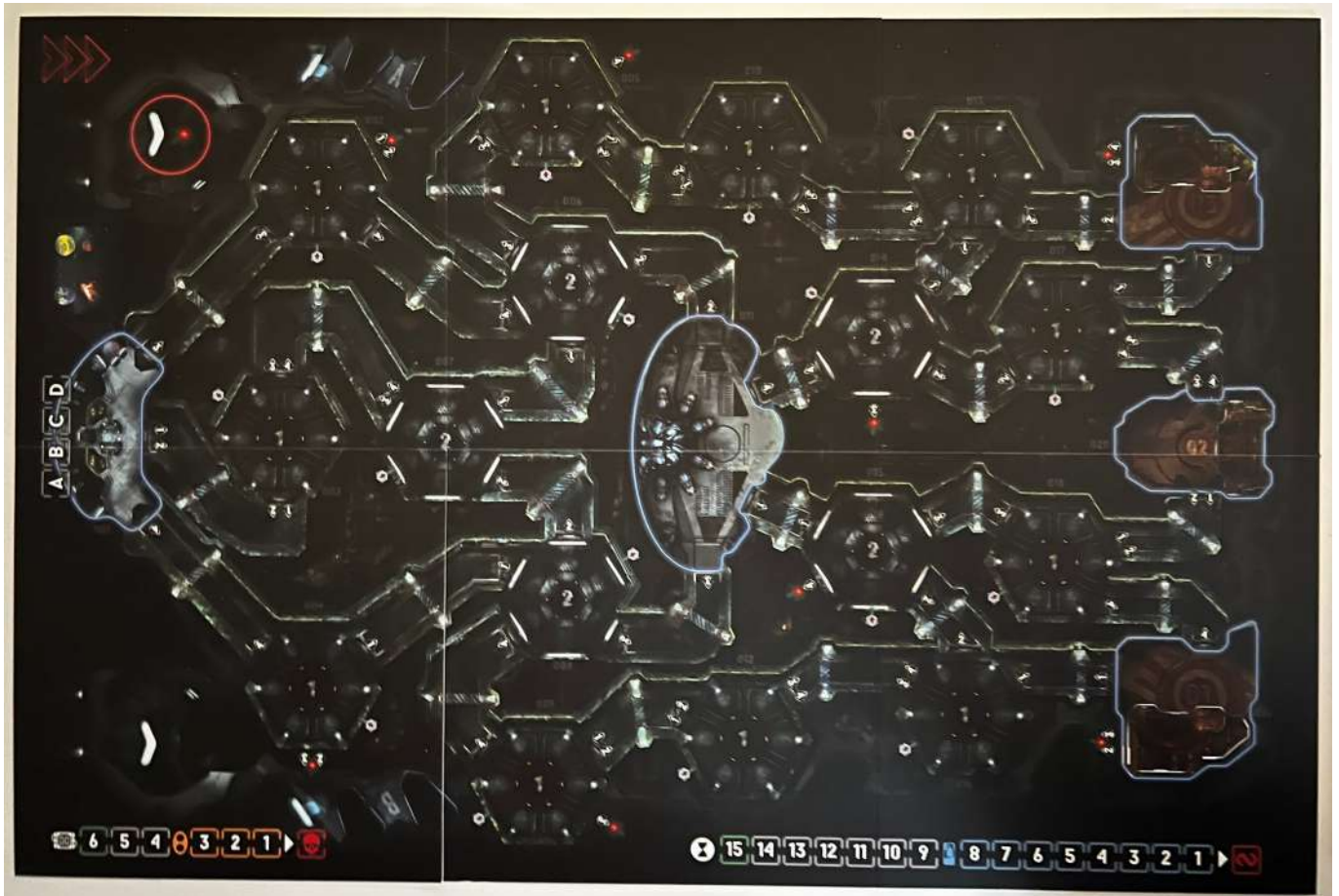
Millenium Blades



In *Millennium Blades*, the players' scores are represented by three separate tracks—one for units, one for tens, and one for hundreds. Uniquely, these tracks increase from right to left, contrary to the more culturally conventional left-to-right direction. Furthermore, it imposes a mathematical task on players each time they calculate their scores, as they must add three addendums.

We would like to thank Daniel Thurot ([BGG link](#)) for the photo.

Nemesis



In the case of *Nemesis*, low contrast and excessively dark colours on the board can pose usability challenges. These features may make it difficult for players to distinguish between different elements or to move between rooms and corridors, leading to frustration and hindering gameplay.

On Mars



All icons used should be distinct and evocative of their meaning, as employing too many symbols or those detached from their meaning may lead to continuous manual reference. Despite claiming to be language-independent, *On Mars* falls into this problem, relying on icons and numbers to convey information, which can resemble learning a new ideographic language.

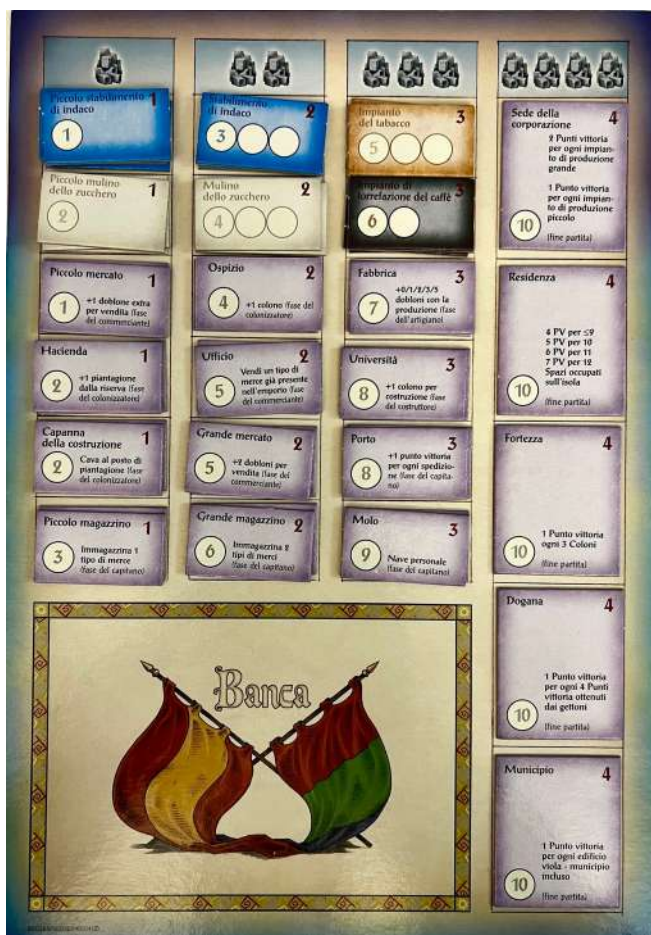
Pax Renaissance: Second edition



This player aid is thick and densely packed with text. Using larger, iconographic player aids instead of dense semantic information would facilitate easier recall of the various attack/action types.

Puerto Rico





In certain versions of *Puerto Rico*, building tiles lack explicit information about their function on the front side. Instead, the details are concealed on the back of the tiles, creating difficulty for players in understanding the effect of each building. Other versions feature abundant text, but it is presented in a small font, making it challenging for players to spot and read.

Pyramidice



In this picture showcasing the game *Pyramidice*, it's evident how easily recognizable the icons on the players' cards are, as they are sufficiently large to be spotted at a glance.

Sagrada



In *Sagrada*, players compete in placing coloured dice on their board according to interlocking goals. Since Dice are translucent and come in similar colours it could be difficult to distinguish - especially blue and purple.

Terra Mystica



In the player boards of *Terra Mystica*, important information can be obscured by components. For instance, unbuilt buildings cover the revenue they would generate once built, making it challenging to assess it in advance.

Terraforming Mars



Another example is *Terraforming Mars*, with text font on the cards that is often considered too small to be read without straining, as clearly shown in this picture.

The Great Wall



In *The Great Wall* the icons referring to resources are the same as those indicating the production of those resources, except for a small coloured background. In the third card displayed, titled "Commesso esemplare," both icons are visible, highlighting their striking resemblance.

Tokaido



Tokaido is an example of how aesthetics is given relatively more importance compared to ergonomics and usability. Despite its aesthetic appeal and thematic charm, *Tokaido* has faced criticism for its main game board being somewhat difficult to read and navigate for some players. The board's design, while visually stunning, can sometimes make it challenging to discern the specific locations and routes available, leading to confusion during gameplay, especially for those new to the game. Some players have

found that the artwork, while beautiful, can overshadow the functional elements of the board.

While this aspect of Tokaido may not be universally praised, many players still appreciate the game for its unique theme, elegant mechanics, and relaxed gameplay experience despite the usability concerns with the main board.

We would like to thank James Meyers ([BGG link](#)) for the photo.