

NUCLEUM

ENERGY RESEARCH INSTITUTE

As the Twentieth Century dawns, the world is forever changed. Fueled by the Uranium Revolution, a new era of prosperity is here. The rich, the powerful, the free spirited... They all want a slice of the new life. Lucky for them, the energy consortiums working all over the planet, from Saxony to Australia, are more than happy to sell a few shares for extra investments. With these seemingly inexhaustible new sources of funding more and more entrepreneurs dared to set up their own experiment, and set out to make their own glowing bright green path to success! But no one can reach their heights with ambition only. Powerful Patrons are here, offering their wealth and knowledge to help you reach a new level and become the most respected entrepreneur of the time!

Nucleum: Energy Research Institute is an expansion to the base game of Nucleum and brings to life 8 new Experiments, and Patron cards with powerful abilities. All new Experiments are also compatible with Nucleum: Australia, Nucleum: Court of Progress, and Nucleum: Patron Set.

COMPONENTS

8 NEW EXPERIMENTS, EACH:



EXPERIMENT BOARD AND ITS RESPECTIVE TECHNOLOGY TILES



EFFECT TILE



5 STARTING ACTION TILES



NUCLEUM: AUSTRALIA SPECIAL SHIPPING TILE



NUCLEUM: COURT OF PROGRESS ALTERNATIVE STARTING TILE



6X PATRON CARDS FOR EXPERIMENTS FROM THE BASE GAME AND COURT OF PROGRESS EXPANSION



1 SCORING PAD



SIDE BOARD OVERLAY

MARKETEER (EXPERIMENT G)



1 CHAINING DEAL TILE

EXPERIMENT SPECIFIC COMPONENTS:

CHIEF MINER (EXPERIMENT H)



1 PLAYER BOARD EXTENSION (H)



4 ADDITIONAL MINES (1 IN EACH PLAYER COLOR)



4 ADDITIONAL TURBINES (1 IN EACH PLAYER COLOR)

MISTRESS OF ESPIONAGE (EXPERIMENT J)



1 PRESENCE MARKER



12 SPECIAL NEUTRAL BUILDING TILES (J)

GENIUS (EXPERIMENT K)



15 TECHNOLOGY POINT TOKENS



1 ADDITIONAL SPECIAL DIRECTIVE TILE



2 SPECIAL ACTION TILES

MASTER BOOKKEEPER (EXPERIMENT M)



2 CONSTANT POTENTIAL TILES



28 SPECIAL VP TOKENS (20X OF VALUE 1, 8X OF VALUE 5)

MADAME GOVERNOR (EXPERIMENT I)



2 TEMPORARY POTENTIAL TILES



4 SPECIAL LABORATORIES (1 IN EACH PLAYER COLOR)

URBANIST (EXPERIMENT L)



16 BUILDING TILES (4 IN EACH PLAYER COLOR)



1 CHAINING PARK TILE

Note: There are no special components for *The Scholar* (Experiment N).

SETUP

Place the side board overlay on its respective location in the endgame condition area.

The following replaces the 13th step (Experiment selection) of the base game's player setup:

1. Randomly reveal a number of Experiment boards equal to the number of players + 1.
 - A. We strongly recommend using the Expert Variant described on page 4 for a balanced game play.
 - B. Otherwise choose Experiment boards in reverse player order.
2. Take the Experiment board, all respective technology tiles, the depicted Turbine Effect tile, all Starting Action tiles, and the Experiment player aid.
 - If playing with the *Nucleum: Court of Progress* expansion, replace the Starting Action tiles with the Alternative Starting Action tiles showing the Court action as per the expansion rules. Otherwise, return these tiles to the box.

For most Experiments, the tile with “Pay 1 Thaler to advance any income marker by 1” subsidize action must be replaced, any exceptions are explicitly noted in this rulebook.

 - If playing with the *Nucleum: Australia* expansion, take the corresponding Special Shipping tile. Otherwise, return it to the box.
 - If selecting one of the Experiments from this expansion, see the “New Experiments” section for possible unique setup steps.
3. Finish your player board's setup as described in steps 13A-C of the base game's setup.

EXPERIMENTS DIFFICULTY RATING

The following table contains guidelines to compare Experiments and a level of experience needed to perform well with them.

Experiment	Experience needed
Experiment A - Banker	◆◆◆◆
Experiment B - Captain of Industry	◆◆◆◆
Experiment C - Mistress Inventor	◆◆◆◆
Experiment D - Junior Minister	◆◆◆◆
Experiment E - Councillor	◆◆◆◆
Experiment F - Madame Engineer	◆◆◆◆
Experiment G - Marketeer	◆◆◆◆
Experiment H - Chief Miner	◆◆◆◆

Experiment I - Madame Governor	◆◆◆◆
Experiment J - Mistress of Espionage	◆◆◆◆
Experiment K - Genius	◆◆◆◆
Experiment L - Urbanist	◆◆◆◆
Experiment M - Master Bookkeeper	◆◆◆◆
Experiment N - The Scholar	◆◆◆◆

NEW EXPERIMENTS

MARKETEER

Additional setup: When preparing the stacks of Silver and Gold Contracts (base game setup step 6C-6D), add one more Contract of each type. In other words, use 7/10/13 Silver and 11/13/17 Gold Contracts for a 2/3/4-player game. Remember, when playing with *Nucleum: Australia*, you must add 2 Contracts to each stack, therefore use 9/12/15 Silver and 13/15/19 Gold Contracts when Marketeer is used with that expansion.

Place the Chaining Deal tile face down below the Experiment Board.

Gameplay Changes: none.

CHIEF MINER

Additional setup: Take the player board extension, an additional Mine, and an additional Turbine in your color. Place the extension below your player board and the additional Mine and Turbine on their dedicated spaces of the extension.

Gameplay Changes: After you unlock a technology with the player board extension, you may build the additional Mine and Turbine as per normal rules.

MADAME GOVERNOR

Additional setup: Replace your Level III Laboratory in your player color with the Special Laboratory provided in this expansion. Place both Temporary Potential tiles face down below the Experiment board. (See page 4 for more details on Potential tiles.)

Gameplay Changes: The level III Special Laboratory also counts as a Government Building .

MISTRESS OF ESPIONAGE

Additional setup: Return all Urban Buildings in your color to the game box and place the 12 Special Neutral Buildings provided in this expansion on your player board.

Place your Presence marker in any city on the map that has at least one unoccupied urban site. If playing with the Nucleum: Court of Progress, starting tile with the Court action replaces the starting tile with the Develop action.

Gameplay Changes: The Mistress of Espionage does not have their own Urban Buildings. Placing a Special Neutral Building on the map does not create or extend any Mistress of Espionage's network(s). However, the Mistress of Espionage can place Mines, Turbines, and Railways on the map as per normal rules.

For the Mistress of Espionage, **all energized** Neutral Buildings count toward the requirements of Contracts (together with their own Mines, Turbines, etc). Neutral Buildings that have not yet been energized do NOT affect the Mistress of Espionage in any way.

The Mistress of Espionage is allowed to energize Special Neutral Buildings on the map (according to normal rules) as well as Buildings still present on their player board, under the following conditions:

- Buildings on their player board are considered to be present in the City where the Mistress of Espionage's Presence marker is located.
- This City must have at least one unoccupied urban site.

Upon energizing a Building on their player board, the Mistress of Espionage gains all the depicted benefits, then flips that Building to its energized side.

The Mistress of Espionage is allowed, at any time during their turn, to pay 4 Thaler to move their Presence marker to any City.

Important: The Mistress of Espionage's Presence marker influences only the way they can energize their Buildings on the player board, but it does not influence any other actions the Mistress of Espionage is performing.

The Mistress of Espionage is allowed to build both energized and not energized Special Neutral Buildings from their player board, following normal rules.

At the end of the game, the Mistress of Espionage gains VP for all **built** and energized neutral Buildings. Ignore the VP reminders on the Player board, they are not applicable to Mistress of Espionage.

Other players may energize Special Neutral Buildings as if they were regular Neutral Buildings, gaining all the instant benefits. Points will be granted to the Mistress of Espionage at the end of the game as usual.

NOTE: *Mistress of Espionage is recommended to be played in games with more than 2 players.*

GENIUS

Additional setup: Place the Technology point tokens in the general supply.

Gameplay Changes: The Genius's board contains 16 Technologies instead of the regular 8. Additionally, the Genius uses Technology point tokens to track their available Technology points.

When the Genius gains a Technology as a reward (usually via completing Contracts or energizing Laboratories), they gain Technology points equal to the level of that Technology **instead of** immediately unlocking a Technology or gaining VP. The Technology point tokens are limited, if you cannot gain more, any excess is wasted. Once per turn at any time, the Genius may spend Technology points to unlock 1 Technology. To do so, they must spend a number of Technology points equal to the level of the unlocked Technology.

The endgame condition "At least one player has unlocked all of their 8 Technologies" cannot be triggered by the Genius. Instead, they must unlock all of their 16 Technologies to trigger that endgame condition.

When playing with *Nucleum: Court of Progress*, and the agenda that scores for Technologies is in play, the Genius scores 1 VP per every 2 unlocked Technologies (instead of 1 VP per unlocked Technology).

URBANIST

Additional setup: Return your Level II and Level III Residences and Factories and replace them with Urbanist Parks. Place the Chaining Park tile face down below the Experiment board.

Gameplay Changes: Parks grant different rewards and endgame VP for energizing them than their regular counterparts.

MASTER BOOKKEEPER

Additional setup: Place all Special VP tokens in the general supply. Place both Constant Potential tiles face down below the Experiment board. (See page 4 for more details on Potential tiles.)

Gameplay Changes: Whenever you advance **any Income marker past the end of its track** and gain VP as a result, do not mark the gained VP on the scoring track. Instead, take the Special VP tokens. These Special VP tokens are used for this purpose only and all other VP you gain are marked on the scoring track as per normal rules.

At the end of the game, during final scoring, add all the Special VP you have gained to your score. **If you unlocked the M8 Technology, you will score additional VP based on the number of the Special VP you collected.**

THE SCHOLAR

Additional Setup: If playing with the *Nucleum: Court of Progress*, starting tile with the Court action replaces the starting tile with the Worker income Subsidize action.

NEW CONCEPTS

CHAINING TILES (MARKETEER AND URBANIST)

These tiles can be gained through Technologies. They allow you to take the printed action and then optionally play a non-Chaining Action tile (*see the following additional rules*) immediately **on top** of this Chaining tile and resolve it.

Additional rules and clarifications:



- You may **never** place a Chaining tile as a Railway tile.
- You may **never** play more than 1 Chaining tile on the same turn (this rule includes the Shipping tile from the *Nucleum: Australia* expansion).



- You may play your Special Directive tile on top of a Chaining tile.
- You must fully perform the action depicted on the Chaining tile before placing and performing the actions of the Action tile played on top of it.
- Chaining tiles **count** toward the number of the Action tiles you have for Contracts, Milestones, and Experiments' scoring Technologies.
- You may not fulfill an additional Contract in the same turn by placing Chaining tiles.

POTENTIAL TILES (MADAME GOVERNOR AND MASTER BOOKKEEPER)

These tiles can be gained through Technologies. They are placed on the leftmost spaces of your player board. Their purpose is to fill spaces for Action tiles, making it easier to take full advantage of well-advanced income markers during Recharge.



Temporary Potential tiles are one-use only. You may place one or both of them during one of your Recharge turns, and remove the used one(s) from the game after resolving.



Constant Potential tiles are placed immediately after being unlocked in the 2 leftmost Action tile spaces of your player board and remain on these spaces until the end of the game (they are not removed during the Recharge).

If all your Action tile spaces are filled, you may choose to play tiles on top of the Potential tiles to postpone

their Recharge. If all your Action tile spaces have an Action tile played in them (either in the empty space or on top of the Potential tile), you cannot play any more tiles on your player board.

Potential tiles are not Action tiles, thus they **do not** count toward the number of the Action tiles for Contracts and Milestones.

MODIFIED ENDGAME CONDITIONS

In 3- and 4-player games the number of conditions to trigger the Endgame has increased from 2 to 3, while in 2-player and solo games the number of conditions remain unchanged. If you are combining this expansion with *Nucleum: Australia*, the same number of conditions apply.

EXPERT VARIANT

Players who are already well acquainted with *Nucleum* and its expansions are encouraged to try the following expert variant. Players no longer take Experiments in reverse player order. Instead, in player order, players hold an auction using VP to become the 1st/2nd/3rd to choose their Experiment. The auction is an open bidding process: each player may offer an amount of VP to be first to choose, and the amount they bid must be subsequently higher than the previous mount, or they may pass. The player who passes first chooses last, then the next player to pass must lose the amount of VP equal to their last bid and be 3rd, and so on. All players must mark down (anyway they choose to) the amount they bid and lose that number of VP at the end of the game, before tallying up VP and determining the winner.

NOTE: This Expert Variant is identical to the one described in *Nucleum: Australia* and *Nucleum: Court of Progress*.

EXAMPLE: Players A, B, C, D are bidding for priority of choosing Experiments, as follows: A-1, B-3, C-4, D-6, A-7, B-pass, C-8, D-10, A-pass, C-11, D-12, C-15, D-pass. C must lose 15VP and is the first to pick their Experiment, D must lose 12VP and is the second, A must lose 7VP and is third, and B is the last to choose and loses no VP. All these VP will be lost at the end of the game, before determining the winner.

PATRON CARDS

These cards have several uses and players may decide which of them they want to use. All of the uses are described in detail below.

EXPERIMENT IDENTITIES

Each Patron Card belongs to the specific Experiment board. All the Experiment boards introduced in this expansion are already named after their corresponding Patron cards. Experiments from the base game also have their Patron card:

- Experiment A – Banker
- Experiment B – Captain of Industry
- Experiment C – Mistress Inventor
- Experiment D – Junior Minister
- Experiment E – Councillor (Requires the *Nucleum: Court of Progress* side board)
- Experiment F – Madame Engineer

Every Patron card has the occupation of each Patron associated with the specific Experiment, along with their description and image depicting them. Each Patron is described in more detail at the end of this rulebook.

SETUP CHANGE

If you own *Nucleum: Patron Set*, choose one of the two Patron cards to use for Experiments A-F.

During setup, players must agree whether they want to use the Patron abilities described in the next section. Then, if players do not play with the *Nucleum: Court of Progress* expansion, return the Councillor's card back to the box (if they do not have Experiment F, also return the Madame Engineer's card). They must also agree on how they want to choose their Experiment boards as follows:

- **Following the rules described in the beginning of this rulebook:** In this case, when a player takes everything that belongs to an Experiment board of their choosing, they also take the appropriate Patron card with them.
- **Following the Expert Variant:** In this case, a player also takes the appropriate Patron card. You may also incorporate the following rule: shuffle and deal a number of Patron cards equal to the number of players. Then proceed with the bidding as described in the Expert Variant. Only Experiments associated with revealed Patron cards may be chosen.
- **Random:** Deal everyone a random Patron card to determine their Experiment board. Take everything that belongs to that Experiment and continue with the setup as usual.

PATRON ABILITIES

Apart from introducing Patron identities, each Patron card has an ability that requires a player to spend a specific number of VP. These abilities may be used at any point during a player's turn, but they may only be used once per game. Players may flip their Patron card to remember that they have used the ability. Patron abilities are as follows:

- **Banker** – Spend 6VP while performing the Energize action to use up to 3 of your Uranium that is not connected to the Power Plant you are using.
- **Captain of the Industry** – Spend 3VP while performing the Industrialize action to perform an extra Industrialize action.
- **Mistress Inventor** – Spend 5VP. From now on, treat this card as an energized Building for the sake of all scoring and Contracts (but it is not treated as if it were in a City). This counts as an Energizing the Building action, so all Technologies that trigger on that action and the 2nd Turbine effects are applied, if unlocked.
- **Junior Minister** – Spend 8VP to take an Action tile from the top of the stack and a Worker from the reserve. Place this tile immediately as a railway, resolving it normally. The tile must be placed on a double or a triple rail line.
- **Councillor** – Spend 4VP when removing Politicians during King's Day Scoring to protect 1 of your Politicians that is not a leader.
- **Madame Engineer** – Spend 4VP to retrieve an already used Chaining tile from the player board.
- **Marketeer** – Spend 3VP to take an unused gold Contract from the box and place it in your completed Contracts pile. Trigger all the Technologies for taking and completing a Contract, but not the Contract's reward (nor any of your Contract space's rewards).
- **Chief Miner** – Spend 5VP to unlock a Level 1 Technology.
- **Madame Governor** – Spend 3VP to take the cheapest Action tile.
- **Mistress of Espionage** – Spend 3VP to perform an Energize action for a Building on a player board following the Mistress of Espionage rules.
- **Genius** – Spend 1VP when using a Special Directive tile. You have a total of 3 Thaler discount instead of the regular 1 Thaler discount.
- **Urbanist** – Spend 3VP to take 2 of the 4 Rewards from the following: 2 Thaler/1 Worker/1 Uranium/2 Achievement tokens.
- **Master Bookkeeper** – Spend 4VP to move 1 step on 2 different income tracks.
- **The Scholar** – Spend 4VP to place a Mine/Turbine/Urban Building in a City where you already have at least one of the same kind of structure. Pay the appropriate cost with a discount of 1 Thaler/Worker.

MEET THE PATRONS



BANKER

Drawing upon his extensive experience in the art of turning a profit, Banker stood at the forefront of those who recognized the transformative potential inherent in Nucleum technology. From its nascent stages, he envisioned the far-reaching impact it would have on the world. With a keen eye for opportunity, he wasted no time in devising a comprehensive strategy designed not only to line his pockets but also to catch the attention of the King, thus earning him a place of distinction in the corridors of power.

His strategic foresight enabled him to extend his sphere of influence even to the distant shores of Australia, where he established yet another stronghold for his burgeoning financial empire. Leveraging his extensive network of connections, Banker's reach became virtually boundless, allowing him to spearhead urban development initiatives with unmatched efficiency, consistently delivering substantial cost savings compared to his peers in the entrepreneurial arena.

Furthermore, Banker's shrewd business sense compelled him to judiciously relinquish elements of his authority when presented with golden opportunities that promised to exponentially increase his profits. With each venture, his primary focus remained steadfastly fixed on maximizing returns, demonstrating an acute ability to discern lucrative prospects amidst the tumult of the business landscape.



CAPTAIN OF INDUSTRY

As an already seasoned authority in the realm of electrical energy, Captain of Industry found herself presented with a groundbreaking opportunity upon the advent of Nucleum technology. This innovation promised to revolutionize the accessibility and distribution of electricity, rendering it far more attainable and transportable than ever before, thereby opening the doors to countless households and facilities previously devoid of such convenience.

Recognizing the transformative potential of Nucleum, Captain of Industry wasted no time in hitching her wagon to this technological marvel. Embracing the newfound capabilities with zeal, she swiftly incorporated the innovative technology into

her operations. With a steadfast commitment to addressing the needs of the populace, she positioned herself as a champion of the people, earning her considerable favor from the Monarchy, who held improving living conditions in high regard.

Endowed with a genuine concern for the welfare of others, Captain of Industry found herself surrounded by a cadre of willing allies eager to lend their support. Many were inspired by her altruistic endeavors and willingly offered their assistance, often at the cost of their own resources, or with an enhanced efficiency that belied conventional expectations.

Yet, not all who crossed her path harbored such benevolent intentions. Nevertheless, armed with a judicious expenditure of her influence, Captain of Industry found that doors once firmly shut soon swung open, granting her access to the resources and facilities necessary for her ambitious undertakings, whether in the realm of residential construction or industrial expansion.



MISTRESS INVENTOR

The moment that catalyzed the Inventor's long-awaited breakthrough. While Elsa von Frühlingfeld diligently focused on pioneering a new frontier of power generation, the Mistress Inventor set her sights on revolutionizing the logistics of resource transportation and electricity distribution. In her quest for efficiency, she sought ways to streamline the process, eliminating the barriers of distance and ensuring a seamless transmission of energy to its intended destinations.

With the advent of Nucleum, Mistress Inventor found the missing piece of her puzzle - a revolutionary means to generate the requisite amount of electricity to power her ambitious endeavors. Moreover, she was fortunate to be surrounded by some of the brightest minds in the field, whose collective expertise and ingenuity proved instrumental in bringing her vision to fruition.

Armed with Nucleum technology, the concept of distance became a mere abstraction for Mistress Inventor, effortlessly traversable in the realm of her innovations. However, the constraints of resource scarcity remained a tangible challenge, imposing limitations on her grand designs. Yet, buoyed by her indomitable spirit and resourcefulness, she endeavored to overcome such hurdles, leveraging her influence to procure additional uranium, and finding cutting edge technology to obtain even more electricity from it.



JUNIOR MINISTER

While he had been in charge of an unexciting bureaucratic department nobody cared about, Junior Minister already harbored a keen focus on cultivating his public image and garnering favor from the Monarch. Now, the stage is set for him to step into the spotlight. Years of relentless toil and dedication culminate in a well-deserved reward: access to government-allocated workers, drawn to his cause by a combination of empathy and self-interest.

Bolstered by an intimate understanding of the Crown's railway infrastructure, Junior Minister enjoys a competitive edge, enabling him to expand his operations at a pace unmatched by his competitors. Freed from the shackles of bureaucratic red tape and regulatory constraints, he navigates the landscape with agility and precision, positioning himself as a formidable force in the realm of entrepreneurship.

Moreover, his astute grasp of the intricacies of bureaucracy and political maneuvering empowers him to expedite the fulfillment of the Monarch's mandates, outpacing his rivals in announcing the completion of royal requisitions.

However, Junior Minister's ambitions extend beyond mere compliance with official directives. Rumors of clandestine coal reserves hidden across Saxony have piqued his interest, presenting a tantalizing opportunity for personal gain. With a deft touch and a network of connections at his disposal, he endeavors to manipulate circumstances to secure access to these coveted resources, thereby furthering his own interests and consolidating his position within the economic hierarchy.



COUNCILOR

As with any groundbreaking advancement, the emergence of Nucleum swiftly became a focal point of political discourse across the nation. In This dynamic landscape, Councilor stands poised to leverage this newfound fervor to his advantage. A masterful tactician adept at navigating the intricate webs of political intrigue, he reigns supreme in maneuvering between the four distinct political factions, deftly orchestrating alliances and allegiances to maximize his traction in the unfolding nuclear race.

Yet, for Councilor, this is merely the dawn of his grand ambitions. With each successive project, his sphere of influence burgeons, cementing his position as a formidable

player in the unfolding saga of technological innovation. As the stakes escalate, he recognizes that securing the requisite funding to propel his ventures to fruition may necessitate the strategic dispensation of favors and concessions—a calculated investment in the realization of his far-reaching aspirations.

Undeterred by the complexities inherent in the political arena, Councilor remains undaunted in his pursuit of supremacy, his sights set unwaveringly on the horizon of possibility. In the crucible of political machinations, he is a force to be reckoned with, his every move calibrated to seize the fleeting opportunities that abound amidst the tumult of ambition and intrigue.



MADAME ENGINEER

Imagine a young, brilliant engineer, a woman of remarkable talent and ambition, whose singular focus lies in harnessing the power of the newly invented Nucleum to develop an array of revolutionary devices. With an innate capacity for innovation, she surpasses her competitors in efficiency, accomplishing feats that were once deemed impossible within the same temporal constraints. Driven by an insatiable curiosity and an unwavering commitment to progress, she embarks on a quest to unveil the untapped potential of Nuclear technology. Each device she creates is a testament to her ingenuity and vision, pushing the boundaries of what was previously thought achievable.

As her influence spreads, so too does the impact of her creations. With each new device, she leaves an indelible mark on the world, transforming industries and revolutionizing the way we live and work. Unsurprisingly, there are people who willingly join her on her quest for just a small portion of the influence she has already gained.

In the hands of this visionary engineer, Nucleum technology becomes more than just a tool—it becomes a catalyst for change, driving innovation and progress on a scale never before imagined. And as she continues to push the boundaries of what is possible, the world watches in awe, inspired by her brilliance and unwavering dedication to shaping a better tomorrow.



MARKETEER

How much smaller would the benefit of the nuclear revolution be if there were not people to spread the word and attract investors? This is precisely the Marketeer's role. As a passionate advocate for Nucleum technology, she dedicates herself to informing the

world, especially potential investors, about its transformative potential.

The Marketeer's primary focus is on securing contracts from authorities and demonstrating the new technology's capabilities. With a keen understanding of the market and persuasive communication skills, she highlights the advantages and innovations that Nucleum brings. Her efforts ensure that stakeholders recognize the value and impact of adopting this cutting-edge technology.

Through her relentless dedication, the Marketeer plays a crucial role in driving the nuclear revolution forward. By securing and fulfilling contracts with ease, she showcases the practical benefits and competitive edge of Nucleum technology, paving the way for widespread adoption and investment. Her work ensures that the world fully embraces the potential of this revolutionary advancement.



CHIEF MINER

Amidst the throes of the industrial revolution, the world finds itself in dire need of not only visionary engineers but also the indispensable miners who tirelessly supply the raw materials essential for powering groundbreaking inventions. Standing at the helm of mining operations, the Chief Miner is a pivotal figure whose decisions shape the future of industrial progress. With the authority to determine where and what to excavate, he strategically selects sites rich in the resources required to fuel the burgeoning technological advancements, ensuring a steady flow of materials critical to sustaining innovation.

Blessed with capabilities that surpass those of his peers, the Chief Miner excels in establishing new mining operations and erecting turbines. His unrivaled proficiency enables him to expand the network of mines with unparalleled efficiency, tapping into previously unexploited resources and maximizing output to meet the ever-growing demand. His expertise and foresight not only keep the supply chain robust but also drive economic growth and development, solidifying his place as a linchpin in the industrial era.

The Chief Miner's role extends beyond mere resource extraction; he is a cornerstone of industrialization, laying the groundwork for progress and ensuring that the gears of innovation continue to turn. Through his relentless efforts, he supports the creation of new technologies, driving forward the momentum of the industrial revolution. His leadership and dedication serve as a testament to the vital role of resource management in an age of unprecedented progress.



MADAME GOVERNOR

In her position of authority, the Governor enjoys privileges beyond the reach of others. She skillfully leverages the efforts of those around her, tapping into their networks to further her own ambitions. With her status, she can gain access to valuable connections and resources that might otherwise remain out of reach.

One of her most significant advantages is her ability to secure permissions to build structures in locations that would typically be off-limits. This exclusive access allows her to spearhead projects in prime areas, driving development and growth in ways others cannot.

Through her strategic maneuvering and authoritative presence, Madame Governor not only benefits from others' work but also paves the way for transformative initiatives. Her unique position enables her to make impactful decisions, shaping the landscape and fostering progress within her district.



MISTRESS OF ESPIONAGE

Not all the Patrons play by the rules. The Mistress of Espionage thrives in the shadows, unconcerned with reputation or ethical boundaries. Her expertise lies in clandestine operations, where she skillfully copies other Patrons' technology and special turbines, gaining an edge without investing in original research.

One of her most cunning strategies involves disguising her buildings as neutral ones, blending into the landscape to avoid detection and scrutiny. This deception allows her to operate under the radar, expanding her influence and capabilities without drawing attention.

Additionally, the Mistress of Espionage possesses the unique ability to energize two buildings in a single action, maximizing her efficiency and resource utilization. By bending the rules to her advantage, she outmaneuvers her rivals, solidifying her position as a formidable and unpredictable force in the competitive world of industrial advancement.



GENIUS

Some Patrons possess capabilities beyond the ordinary, and the Genius twins exemplify this exceptionalism with their combined expertise in a remarkable array of 16 technologies. These twins not only bring double the innovation but also offer a unique strategic advantage: they have the ability to accumulate and store technology points rather than rushing to research new technologies immediately.

This strategic approach allows them to save up these technology points, investing them in more powerful and game-changing innovations at the most opportune moments. Their combined knowledge and skills enable them to adapt swiftly to changing circumstances, ensuring they remain at the forefront of technological advancement.

Together, the Genius twins are a formidable force in the world of innovation, using their collective intellect to consistently stay ahead of the competition. Their ability to strategically allocate resources and make timely investments in new technologies sets them apart, driving progress and shaping the future in ways that others can only aspire to achieve.



URBANIST

Instead of concentrating on industrializing and harnessing Nucleums, the Urbanist dedicates herself to urban development and enhancing community spaces. Her unique talent lies in her ability to construct an array of buildings, transforming the landscape with her visionary plans.

One of her most notable abilities is her capacity to incorporate Parks into the urban environment. These green spaces not only beautify the area but also offer additional benefits, fostering a sense of well-being and improving the quality of life for residents. By prioritizing greenery, she creates harmonious, sustainable communities that stand out amidst the industrial sprawl.

Through her dedication to thoughtful urban planning and her commitment to environmental sustainability, the Urbanist shapes vibrant, livable cities. Her focus on erecting diverse structures and integrating Parks ensures that her developments are both innovative and beneficial, setting new standards for urban living.



MASTER BOOKKEEPER

Wherever there is a flurry of financial activity and complex operations, a Master Bookkeeper is indispensable. This meticulous professional is essential for keeping track of finances and operations, ensuring everything runs smoothly and efficiently. By applying their mathematical skills and unwavering diligence, the Master Bookkeeper can unlock additional benefits and optimize the flow of resources.

The Master Bookkeeper excels in maximizing the advantages from rapidly increasing income tracks. Through precise calculations and strategic planning, they can score extra points, leveraging financial growth to their advantage. Their expertise allows them to tap into Potential tiles, enabling quicker recharges and maintaining a steady pace of progress.

With an eye for detail and a knack for numbers, the Master Bookkeeper transforms financial management into a powerful tool for success. Their ability to harness income growth and efficiently utilize resources ensures that every operation reaches its full potential, making them a crucial asset in any ambitious venture.



THE SCHOLAR

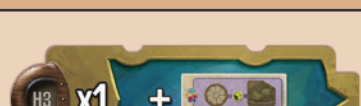
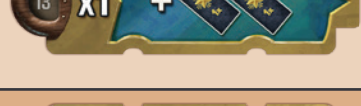
Not every Patron is driven by a hunger for power, wealth, or scientific frenzy. Some, like the Scholar, are motivated by the pursuit of knowledge and the dissemination of groundbreaking technologies like Nucleum. Passionate about education and the exploration of Nucleum's potential, the Scholar is dedicated to fostering discussions and teaching others about this revolutionary technology in a standardized, accessible form.

Committed to development, the Scholar gains access to numerous immediate actions and resources, ensuring that people across the region can reap the benefits of the nuclear revolution. By emphasizing education and the practical applications of Nucleum, the Scholar ensures that technological advancements are not confined to the elite but are available to everyone.

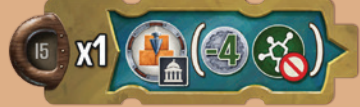
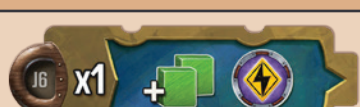
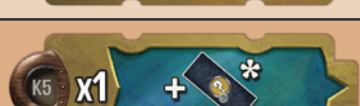
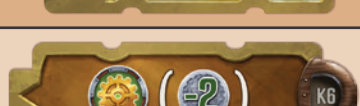
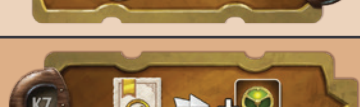
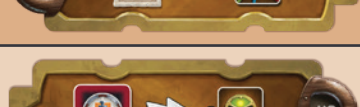
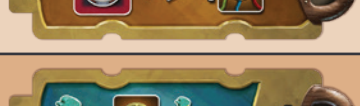
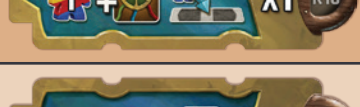
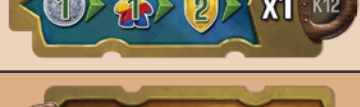
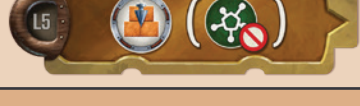
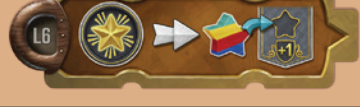
Through their efforts, the Scholar champions a future where knowledge and innovation are shared widely. Their dedication to teaching and community engagement not only advances technological understanding but also cultivates a society ready to embrace and utilize the full potential of the nuclear age.

APPENDIX

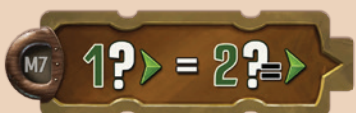
TECHNOLOGIES

LEVEL	TECHNOLOGY	EFFECT	APPEARS ON
1		(G1) Whenever you place a Mine, Turbine, Urban Building, or railway tile on a red space, gain 1 Achievement token.	Marketeer
1		(G2) Whenever you take a Contract action, you may place the new Contract tile on a Contract space already containing exactly 1 Contract tile, gaining rewards according to normal rules. You may only fulfill visible Contract tiles.	Marketeer
1		(G3) (N3) Take 1 Action tile from the market with an additional discount of 2 Thaler.	Marketeer, The Scholar
1		(H1) (I1) The coal always costs only 1 Thaler. You must still flip/remove the Coal Import Wagon tiles as per regular rules, only the cost changes.	Chief Miner, Madame Governor
1		(H2) (K2) After you perform an Industrialize action gain 1 Thaler.	Chief Miner, Genius
1		(H3) Place your player board extension below your player board's Industrialize section. From this moment on, you may build your additional Mine and additional Turbine (each with a cost of 1 Worker) and once you build both immediately gain a Level 2 Technology.	Chief Miner
1		(I2) (K1) After you have fully removed a full row of Buildings from your player board, advance each of your income markers by 1.	Madame Governor, Genius
1		(I3) Gain 2 Temporary Potential tiles. You may use one or both Temporary Potential tiles on your player board when Recharging. They count as the Action tiles when calculating the income. Temporary Potential tiles are immediately removed from the game after the Recharge in which they were used.	Madame Governor
1		(J1) (N1) After you fulfill a Contract, gain 1 Thaler.	Mistress of Espionage, The Scholar
1		(J2) When you move your Presence marker, pay 2 Thaler fewer. (You pay 2 Thaler instead of 4.)	Mistress of Espionage
1		(J3) Whenever you take an Industrialize action you spend 1 Worker fewer.	Mistress of Espionage

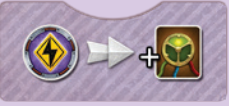
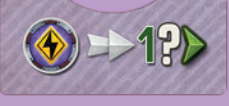
1		(K3) Take a Contract action and gain 1 Achievement token.	Genius
1		(K4) (N2) Gain 2 Workers.	Genius, The Scholar
1		(L1) After you Urbanize on a red space, gain 2 Achievement tokens.	Urbanist
1		(L2) (M3) Immediately take a Develop action with a total discount of 3 Thaler.	Urbanist, Master Bookkeeper
1		(L3) Gain 1 Chaining Park tile. This tile allows you to take an Urbanize action with a restriction of building a Park  , and a discount of 1 Thaler.	Urbanist
1		(M1) Whenever you Urbanize or Industrialize on a red space, advance any income marker by 1.	Master Bookkeeper
1		(M2) Whenever you place a Railway, advance your VP income marker by 1.	Master Bookkeeper
2		(G4) Whenever you fulfill a Contract, take one Action tile from the market with an additional discount of 2 Thaler.	Marketeer
2		(G5) Gain 1 Chaining Deal tile.	Marketeer
2		(G6) (I6) Immediately gain 4 Thaler and 4 Achievement tokens.	Marketeer, Madame Governor
2		(H4) (I4) Whenever you perform an Industrialize action, you may ignore all network requirements.	Chief Miner, Madame Governor
2		(H5) (K9) Immediately perform an Urbanize action with a total discount of 3 Thaler and ignoring any network requirements.	Chief Miner, Genius
2		(H6) Immediately perform an Energize action, then gain 4 Achievement tokens.	Chief Miner

2		(I5) Immediately perform an Urbanize action building a Government Building with a discount of 4 Thaler ignoring any network requirements.	Madame Governor
2		(J4) Whenever you take an Energize action, you may split Electricity to Energize up to 2 Buildings.	Mistress of Espionage
2		(J5) Copy the effect of an instant Level 2 (or lower) unlocked Technology of another player. This Technology cannot copy effects that are granting players their Experiment specific tiles. Genius's Technology Point counts as unlocking a level 1 Technology.	Mistress of Espionage
2		(J6) (K11) Gain 2 Uranium. Perform an Energize action.	Mistress of Espionage, Genius
2		(K5) Gain a second Special Directive tile.	Genius
2		(K6) (N5) Whenever you Develop you have a total discount of 2 Thaler.	Genius, The Scholar
2		(K7) Whenever you fulfill a Gold Contract, gain 1 Technology point.	Genius
2		(K8) Whenever you Urbanize on a red space, gain 1 Technology point.	Genius
2		(K10) Gain 1 Worker, 1 Technology point, and you may perform a "Place a Railway" turn.	Genius
2		(K12) (M6) Immediately advance your Thaler Income marker by 1, Worker Income marker by 1, and VP Income marker by 2.	Genius, Master Bookkeeper
2		(L4) Whenever you take an Energize action you have +1 electricity. After taking this action gain 1 Thaler.	Urbanist
2		(L5) Ignore any network requirements when performing Urbanize actions.	Urbanist
2		(L6) Whenever you Recharge, you may place your Milestone marker in the lowest space of the next higher tier (if you do not already have a Milestone marker in that tier). You still need to have at least 1 Achievement token for this Technology to apply.	Urbanist
2		(M4) Whenever you must advance any income marker past the end of its track, gain one additional Special VP.	Master Bookkeeper

2		(M5) Place 2 Constant Potential tiles onto the first two Action spaces of your player board (moving the remaining tiles to the right if necessary). They remain there for the whole game.	Master Bookkeeper
2		(N4) Whenever you place a Railway tile, advance your VP income marker by 1.	The Scholar
2		(N6) Gain 2 Uranium and 4 Thaler.	The Scholar
3		(G7) Whenever you fulfill a Contract, you may consider the requirement reduced by 1, to a minimum of 1. This does not apply to Purple Contracts.	Marketeer
3		(G8) Score 4/10/21 VP if you fulfilled 7/9/11 Contracts.	Marketeer
3		(H7) Whenever you place a Railway tile, gain 1 Worker or take 1 Action tile from the market with an additional discount of 2 Thaler.	Chief Miner
3		(H8) Score 4/10/21 VP if you have a total of 5/7/9 Mines and Turbines on the map.	Chief Miner
3		(I7) All Railway tiles placed on the map also contribute to your network.	Madame Governor
3		(I8) Score 4/10/21 VP if you have placed and energized 2/3/4 government Buildings in cities of different colors. (Praha does not count as a city of any color.)	Madame Governor
3		(J7) Immediately perform 2 Urbanize actions ignoring any network requirements	Mistress of Espionage
3		(J8) Score 4/10/21 VP if there are 7/9/11 energized Neutral Buildings on the map.	Mistress of Espionage
3		(K13) Whenever you unlock a Technology you may pay 1 Thaler to gain 1 additional Technology point.	Genius
3		(K14) Gain 2 Special Action tiles.	Genius
3		(K15) Score 4/10/21 VP if you have unlocked 11/13/15 Technologies.	Genius

3		(K16) Score 4/10/21 VP if you have 5/8/12 Technology points left.	Genius
3		(L7) Perform an Urbanize action, then immediately flip the newly built Building to its energized side (gaining rewards as if you energized it yourself).	Urbanist
3		(L8) Score 4/10/21 VP if you have built 2/3/4 Parks on red spaces.	Urbanist
3		(M7) Whenever you would gain exactly 1 income step of a type, gain 2 steps of the same income instead.	Master Bookkeeper
3		(M8) Score 4/10/21 VP if you have 9/13/18 Special VP.	Master Bookkeeper
3		(N7) Immediately after you build an Urban Building, you may Energize it following the normal rules.	The Scholar
3		(N8) Score 4/10/21 VP if you have at least 2 Urban Buildings, Mines, and/or Turbines in 4/5/6 different cities each.	The Scholar

TURBINE EFFECTS

	<i>Marketeer's 2nd turbine:</i> Before you perform an Energize action, you may spend any number of Workers to gain an equal amount of Uranium (you must place that Uranium onto your Mines).		<i>Chief Miner's 2nd turbine:</i> After you take an Energize action, gain 2 Thaler.
	<i>Madame Governor's 2nd turbine:</i> After you take an Energize action, gain 1 Uranium.		<i>Mistress of Espionage's 2nd turbine:</i> Whenever you Energize, copy the effect of another player's 2 nd built Turbine. You may choose a different effect each time you Energize. Genius's Technology Point counts as unlocking a level 1 Technology.
	<i>Genius's 2nd turbine:</i> After you take an Energize action, gain 1 Technology point.		<i>Urbanists's 2nd turbine:</i> After you take an Energize action, gain 1 Thaler for every Building with a Park icon you have on the map.
	<i>Master Bookkeeper's 2nd turbine:</i> After you take an Energize action, advance any of your income markers by 1.		<i>The Scholar's 2nd turbine:</i> Whenever you take an Energize action, produce 1 additional electricity.

SOLO MODE

You and the Baron can use any Experiment, except the Mistress of Espionage. The Baron has a Patron card for every other Experiment board. Their effects and changes in rules are described in detail below.

MARKETEER

Setup: Add one additional Contract to both of the Silver and Gold stacks (during step 6 of the main setup).

Ongoing: When resolving either a **Development** or a **Contract** action, instead of the original action do the following in order:

1. Develop, taking only 1 Action tile.
2. Perform a regular Contract action in its entirety.
3. Score 2 VP.

The Baron is not limited to resolving 3 Contracts between Recharges.

CHIEF MINER

Setup: When setting up the map (step 9 of the main rules), additionally:

- A. Place the Chief Miner's special Turbine on a non-red space in a City with a power plant and Nucleum.
- B. Place the Chief Miner's special Mine in the location that you would place the first Rubble tile (instead of the Rubble).

Ongoing: Whenever the Baron places a Railway tile, it takes the right-most Action tile from the offer (put that tile in the front of the Baron's queue). When the Baron performs an Energize action and is able to score Mines (using a power plant with a Nucleum), it scores 2 VP per each Mine it has on the map, even the ones outside of the network (instead of the usual 1 VP per connected Mines).

MADAME GOVERNOR

Setup: The Baron does not use the Experiment specific Urban Building tiles. In step 2C of the Baron's Setup make sure that at least 1 of the 2 additional Action tiles has the Industrialize action.

Ongoing: When performing the Industrialize action, if it can't Industrialize in network, then it can do it outside of network (use the Logic card as a tiebreaker).

Recharge: The Baron places a milestone marker 8 steps above its previous marker (on 9, 20, and 40 ★) scoring the 9 VP when placing on the 40.

Scoring: Government Buildings score 3/3/4 VP instead of 2/2/3 VP (for Residential/Factory/Laboratory).

GENIUS

Setup: Stack the Baron's Urban Buildings in the following order: I, IV, II, III (top to bottom). Randomly select one of the four Specialization cards and put it into play.

Recharge: Randomly select one of the remaining Specialization cards and add it to the cards already in play.

Ongoing: When performing the Urbanize action, the Baron prioritizes the type of Building it has the fewest of on the map. Use a Logic card as a tiebreaker, if needed.

SPECIALIZATION CARDS:



DEVELOPMENT

Immediately: Shuffle the Experiment K special Action tiles with all the tiles ahead of the stopblock and create a new (face-up) queue.

Ongoing: After the Baron performs the Develop action, remove the right-most tile in the offer from the game before refilling.

NOTE: When resolving the , treat it as a Subsidize action of .



INDUSTRIALIZATION

Immediately: The Baron gains 2 Workers.

Ongoing: The Baron does not spend Thaler for the Industrialize action.



URBANIZATION

Ongoing: When the Baron performs the Urbanize action it gains additional rewards depending on the type of the site and Urban Building it placed.

- For a Residential Building it gains a Worker.
- For a Factory Building it gains a Thaler.
- For a Lab it gains 2 VP.
- For placing on a red space it gains +2 VP.



CONTRACTS

Ongoing: The Baron does not take Silver Contracts (unless they are the only ones left). Instead of scoring VP equal to the Technology level, The Baron gains 2 VP for **each** Technology level (it is also added to the Contract's VP value when choosing the Contract).

URBANIST

Setup: Shuffle the 4 Parks in the Baron's color and place them as a 4th stack next to the Baron's other Urban Buildings (do not remove any of its normal Urban Buildings). Shuffle the special Chaining Park tile with the Baron's starting Action tiles (this includes the 2 additional ones from the standard setup for the Baron), and set up the Baron's queue.

Ongoing: The Baron prefers to Urbanize on red spaces. When Urbanizing on a red space, the Baron scores 4VP.

NOTE: When the Baron resolves the Chaining Park tile, it builds the Park from the top of the stack. It **does not cost** a Thaler and it can be placed outside of network, prioritizing a red space. Use a Logic card as a tiebreaker. Otherwise, use the normal rules of Urbanize. After resolving the Chaining tile, the Baron resolves the next Action tile in its queue (similar to the explanation for the Special Shipping tile in the Nucleum: Australia rules). The Chaining Park tile can never be placed on the board as a railway, so resolving it is always a Regular turn.

MASTER BOOKKEEPER

Ongoing: When the Baron Recharges, it gets 1 additional Worker. Whenever the Baron resolves a Subsidize or Court



LIVING RULES PLEDGE

We pledge to support every game well after its initial release. Despite rigorous play testing and multiple rounds of both internal and external proofreading and editing, occasionally the need for rules corrections or minor game play adjustments are discovered only several months or years after the game was manufactured. We promise to produce timely rules updates as necessary, along with expanded FAQ clarifications if needed, available for download from our website in digital PDF format.

Missing or damaged components:

Although we take a lot of care to make sure that your game is complete, manufacturing mistakes can still leave you with a missing or damaged component. If that happens, please contact us to receive replacements swiftly, and with our sincere apologies.

Customer support:

<https://boardanddice.com/customer-support/>

action, it gains +1 VP, and moves the Flag token on the scoring track 1 VP back (lowering the endgame condition). If the Flag token moves to the same space as your VP marker, Baron gains 3 VP for meeting the endgame condition.

THE SCHOLAR

Ongoing: Immediately after resolving the Urbanize action, the Baron takes an Energize action targeting the Building placed that turn. It **does not cost** Thaler. If the Baron is unable to Energize that Building, it resolves a Development action instead, taking only 1 tile from the offer.

CREDITS

Expansion Design: Andrei Novac and Borys Bielaś with Dávid Turczy

Original Design: Simone Luciani and Dávid Turczy

Solo Mode Design: Dávid Turczy and Chuck Case

Game Development: Maciej Górkowski, Michał Cieślowski, Kacper Frydrykiewicz, Joanna Kijanka

Illustrations: Andreas Resch, Piotr Sokolowski, Guilherme Oliveira Barbosa

Solo Mode Development: Kacper Frydrykiewicz, Shane Ryan

Graphic Design & DTP: Andreas Resch, Zbigniew Umgelter, Agnieszka Kopera, Gaba Palicka

Rulebook: Andrei Novac

Rulebook DTP: Gaba Palicka, Zbigniew Umgelter

Rulebook Editing: Tyler Brown

Board&Dice would like to thank all the play testers whose feedback was invaluable in shaping Nucleum and all the released expansions, especially:

Rafał Zdunek, Łukasz "LukSky" Stadnik, Jan "SoAmazinglyBad" Mikołajczak, Anna Oksanen, Marta Szpaderska

© 2025 Board&Dice. All rights reserved.

For more information about Nucleum please visit:

www.boardanddice.com