

今天，让我们来夸一夸《塞尔达传说：王国之泪》：任天堂超越前作的勇气和决心

Today, let's praise "The Legend of Zelda: Tears of the Kingdom": Nintendo's courage and determination to surpass "Breath of the Wild"

当天堂宣称要制作《塞尔达传说：旷野之息》的续作时，很难想象它将如何在游戏设计上超越前作，毕竟《旷野之息》实在是太成功了！自 2017 年 3 月发布以来的六年间，《旷野之息》已售出 2981 万份。目前，《旷野之息》在 Switch 游戏的畅销榜单上排名第四，仅次于《任天堂明星大乱斗》。

When Nintendo announced that they were going to create a sequel to "The Legend of Zelda: Breath of the Wild," it's hard to imagine how they could surpass the game design of its predecessor, considering how incredibly successful "Breath of the Wild" was! Since its release in March 2017, "Breath of the Wild" has sold 29.81 million copies over the past six years. Currently, it ranks fourth on the best-selling Switch games list, sitting below "Super Smash Bros".

对于大部分的游戏公司来说，想为一个已经非常成功的作品制作续作，最稳妥的方式就是不去动那了不起的游戏设计框架，保留绝大多数的基础设计，不要冒险引入新的设计，只要续写故事、多做内容就可以了。再求稳一些，甚至可以就拿出自己积累多年的经典系列，用现代的设计框架和品质一代代复刻过来，比如 xx 游戏重制版。应该说，一个明智的商业团队不会做的事情，就是去改动那个完美的设计框架，试图在游戏设计上超越那个接近满分的前作。

然而，任天堂就这么做了。他们决心在游戏设计上，而不只是内容上超越那个几乎满分的旷野之息——

《塞尔达传说：王国之泪》确实做到了。

For most game companies, when it comes to creating a sequel for an already highly successful game, the safest approach is to leave the remarkable game design framework untouched, retain the majority of the core design, and avoid taking risks by introducing new designs. Simply continuing the story and adding more content would be sufficient. To be even more conservative, they could even bring out their accumulated classic series and recreate them with modern design frameworks and quality, such as a remastered version of a certain game. It can be said that a wise business team would refrain from altering that perfect design framework in an attempt to surpass the almost perfect predecessor in game design.

However, Nintendo made it. They were determined to go beyond just the content and excel in game design compared to the nearly perfect "Breath of the Wild" – and they succeeded in achieving their goals with "The Legend of Zelda: Tears of the Kingdom."

王国之泪也许和旷野之息长得很相似，但它们游戏设计的基础完全不同。这一点从两个游戏相关的热门视频就可以看出来：旷野之息的视频多以解谜、战斗、探索为主题，而王国之泪的视频则充斥着玩家自己组建的高达、飞机、摩托车等等。所有这些设计，都从游戏的基础机制和设计结构上就做出了彻底的底层改变：你不可能在旷野之息，或者长得像旷野之息的其他游戏里，直接复制这些新的设计，它们都需要重构整个游戏设计的框架。

While "Tears of the Kingdom" may look very similar to "Breath of the Wild", their fundamental game designs are entirely different. This can be observed from the popular videos related to both games: videos of "Breath of the Wild" mainly focus on puzzles, combat, and exploration, while videos of "Tears of the Kingdom" are filled with

player-created mechs, planes, motorcycles, and more. All these designs have brought about thorough foundational changes in the game's mechanics and design structure. It's not possible to directly replicate these new designs in "Breath of the Wild" or other games that resemble it; they would require a complete reconstruction of the entire game design framework.

从四大能力入手，重新定义游戏的核心玩法

### Redefining the core gameplay with the four abilities

在旷野之息中，任天堂选择将“化学引擎”和“元素反应”作为玩法构筑的核心，并从无数种设计中精选了四种能力作为林克的核心技能：制冰之力、磁力之力、破坏之力、时间停止能力，分别对应冰、电、火和力学这四种主要的解谜元素。旷野之息大胆删减了传统开放世界的 Checklist 引导传统，取而代之的是清晰的、充满传统技巧的分类引导：基于高度差和三角法则的开放世界探索引导、分散在地图内的呀哈哈种子和神庙解谜挑战、数量庞大但不停提供崭新体验的战斗、环境交互、叙事和任务，最终通过四大区域神兽汇总引导玩家挑战地图中央海拉鲁城堡的最终 boss。

In "Breath of the Wild," Nintendo chose to make the "Chemistry Engine" and "Elemental Reactions" the core of its gameplay construction. They carefully selected four abilities as Link's core skills: Cryonis, Magnesis, Remote Bomb, and Stasis, each corresponding to the main puzzle elements of ice, electricity, fire, and mechanics.

"Breath of the Wild" boldly departed from the traditional open-world checklist-guided approach and instead adopted a clear, tradition-steeped categorization guidance. It included open-world exploration based on height differences and the Pythagorean

theorem, dispersed Korok seed and shrine puzzle challenges throughout the map, a vast but continuously fresh combat, environmental interactions, storytelling, and quests.

Ultimately, players are guided to challenge the final boss at the central Hyrule Castle by first conquering the four Divine Beasts in the different regions.

乍一看，王国之泪中的海拉鲁大陆也许和旷野之息十分相似，但是为了颠覆前作的核心玩法，林克的四大能力全部被更换了。前作的元素反应技能全部被逐出了菜单，承载他们的“希卡石板”（WiiU 手柄）也彻底变成了“普尔亚平板”（Switch 主机）。取而代之的四种新能力，分别是“究极手”（Ultrahand）、“余料建造”（Fuse）、“通天术”（Ascend）和“逆转乾坤”（Recall），以及搭配究极手使用的第 4.5 种能力“蓝图”（Autobuild）。这个游戏设计框架的灵感来源于“开放世界生存建造”（Open World Survival Craft）。就像旷野之息选择了当时新兴、用户基础巨大、玩法定义存在争议的“开放世界”一样，这次任天堂选择了这个比开放世界历史更短、更加新兴、更加垂直的玩法品类，去用自己团队丰富的经验和超卓的执行力来重新定义这个品类。这个玩法到底有多新？它的名字甚至都是 2019-20 年左右才通过 Steam Tag 命名初步确定下来的，绝大多数玩家和行业从业者甚至都没有认同它作为一个独立玩法品类的资格——如果我们以王国之泪的开发周期反推，这甚至意味着任天堂决定做这个玩法方向的时候，“开放世界生存建造”这个词组都还不存在于公开舆论当中。它的处境和 2017 年的开放世界也很像：哪怕是这个品类的核心玩家，也在怀疑这个玩法能不能迈向大众。

At first glance, the Hyrule continent in "The Legend of Zelda: Tears of the Kingdom" may seem very similar to "The Legend of Zelda: Breath of the Wild," but in order to subvert the core gameplay of the previous installment, all four of Link's major abilities have been replaced. The elemental reaction skills from the previous game have been

completely removed from the menu, and the "Sheikah Slate" (used with the Wii U controller) that carried them has been completely transformed into the "Purah Tablet" (used with the Switch console). In their place, four new abilities were introduced: "Ultrahand," "Fuse," "Ascend," and "Recall," along with the complementary ability "Autobuild" that pairs with Ultrahand. The inspiration for this game design framework comes from the concept of "Open World Survival Craft." Similar to how "Breath of the Wild" chose the emerging, massive user-base, and controversially defined "open-world" gameplay at the time, this time Nintendo chose a gameplay category that is even more recent, emerging, and niche compared to the history of open-world games. They aimed to redefine this category with their team's abundant experience and outstanding execution. How new is this gameplay? Its name was only tentatively determined around 2019-20 through Steam Tags, and the vast majority of players and industry practitioners have not even recognized it as a distinct gameplay category. If we trace back the development period of "Tears of the Kingdom," it even means that when Nintendo decided to pursue this gameplay direction, the term "Open World Survival Craft" did not yet exist in public discourse. Its situation is quite similar to the state of open-world games in 2017: even core players of this category were doubting whether this gameplay could appeal to a broader audience.

那么，开放世界生存建造的特点是什么，王国之泪的四大能力又是如何围绕着它来设计的呢？

Then, what are the main characteristics of Open World Survival Craft, and how were the four major abilities in "Tears of the Kingdom" designed around it?"

关于开放世界生存建造游戏，有五个非常标志性的 tag: 生存 (Survival)、开放世界 (Open World)、制造 (Crafting)、建造 (Building)、沙盒 (Sandbox)。以下是关于这五种特质的解析:

**生存 (Survival)** : 在开放世界生存建造游戏中，生存是一个关键要素。玩家必须管理角色的需求，如饥饿、口渴和疾病等。他们还必须应对环境挑战，如极端天气条件、敌对生物和有限的资源。重点是在游戏世界中生存和发展。

**开放世界 (Open World)** : 开放世界生存建造游戏提供广阔、开放和非线性的游戏世界。玩家可以自由地探索环境，而不受特定路径或关卡的限制。游戏世界通常具有沉浸式和动态的特点，鼓励玩家发现秘宝、隐藏地点和独特的遭遇。

**制造 (Crafting)** : 制造涉及从游戏世界中的原材料创建工具、武器、装备和其他有用的物品。玩家可以收集木材、石头、矿石等资源，然后使用制造工作台或工具将它们组合成新的物品。制造对于生存和游戏进展至关重要，因为它允许玩家提高生存能力，并增加生存的机会。

**建造 (Building)** : 在开放世界生存建造中，建造是指构建结构和庇护所。玩家可以使用收集到的资源设计和建造各种建筑物。建造庇护所为玩家角色提供安全场所，并可作为行动基地。玩家还可以创建农场、防御工事和其他结构，以增强他们的生存和游戏体验。

**沙盒 (Sandbox)** : 在开放世界生存建造中，“沙盒”指的是游戏的开放性和自由性。玩家会获得一个虚拟沙盒，几乎没有限制或约束。他们可以进行实验、创造，并根据自己的喜好塑造游戏世界。这些游戏的机制和系统通常允许 **emergent gameplay** (新颖的游戏体验)，这意味着玩家可以与环境 and 机制进行互动而创造出独特的体验。

Survival: In an Open World Survival Craft game, survival is a key element. Players must manage their character's needs such as hunger, thirst, and health. They also have

to deal with environmental challenges like extreme weather conditions, hostile creatures, and limited resources. The focus is on staying alive and thriving in the game world.

**Open World:** An Open World Survival Craft game offers a vast, open-ended, and non-linear game world. Players have the freedom to explore the environment without being restricted by specific paths or levels. The game world is usually immersive and dynamic, encouraging players to discover secrets, hidden locations, and unique encounters.

**Crafting:** Crafting involves the process of creating tools, weapons, equipment, and other useful items from raw materials found in the game world. Players gather resources like wood, stone, and minerals, and then use crafting stations or tools to combine them into new items. Crafting is essential for survival and progress in the game, as it allows players to improve their abilities and increase their chances of survival.

**Building:** Building in Open World Survival Craft refers to the construction of structures and shelters. Players can design and construct various buildings using the resources they gather. Building shelters provides a safe haven for the player character and can serve as a base of operations. Players can also create farms, fortifications, and other structures to enhance their survival and gameplay experience.

**Sandbox:** "Sandbox" in the context of Open World Survival Craft refers to the open-ended and free-form nature of the game. Players are given a virtual sandbox to play in, with minimal limitations or constraints. They can experiment, create, and shape the game world according to their preferences. The game's mechanics and systems often allow for emergent gameplay, meaning that players can create unique experiences

by interacting with the environment and mechanics in creative ways.

正如旷野之息重新定义了开放世界一般，王国之泪重新定义了开放世界生存建造。四大能力中最重要，也是最复杂的究极手和蓝图，对应的是建筑 (Building) 和沙盒 (Sandbox)；通天术和逆转乾坤在旷野之息基础上重构了整个世界的纵向结构，对应的是开放世界 (Open World) 和生存 (Survival)；余料建造对应的是武器制造 (Crafting)。以开放世界生存建造的游戏设计来看，这四个能力绝非没有关联，反而彼此联动构成了整个玩法的核心循环，就像旷野之息四个核心能力构成了“元素反应”一样显而易见。

Just as "Breath of the Wild" redefined the open world genre, "Tears of the Kingdom" redefined Open World Survival Craft. Among the four major abilities, the most important and complex ones, "Ultrahand" and "Autobuild," correspond to "Building" and "Sandbox"; "Ascend" and "Recall" reconstruct the vertical structure of the entire world based on the foundation of "Breath of the Wild," corresponding to "Open World" and "Survival"; "Fuse" corresponds to "Crafting." From the perspective of gameplay design in the context of Open World Survival Craft, these four abilities are not unrelated. Instead, they are interrelated and form the core loop of the entire gameplay, just as the four core abilities in "Breath of the Wild" evidently constituted the "Elemental Reactions".

究极手：建造小白也能乐在其中

Ultrahand: Even building beginner can enjoy the process

究极手和蓝图是林克所有新能力中完成度最恐怖，也是技术实现挑战最大的一个——如果考虑到他们要在机能弱到相当于 PS3 的 Switch 上实现这个能力，它的技术挑战可能还要难上好几倍。以王国之泪的铁链为例：你能在很多神庙吊桥、野外的断裂吊桥和用铁链控制



的大门上看到它们。离谱的是，你可以从这些吊桥的任意一节抓起桥板，随意在空中拖动、链接、组装，然后所有的铁链都会跟着你所拖动的桥板运动，任天堂甚至自信地在好几个神庙里塞进了以这些吊桥为核心的解谜——熟悉其他游戏物理引擎系统的人都知道这别提有多离谱了！大家可以想一下有没有在其他游戏中看到过类似可动性的东西。而且这些铁链还可以更进一步，连接到所有的左那乌动力零件上：当吊桥连接在一辆小车上的时候，小车可以拖动整个吊桥向前方延伸。当吊桥连接在一块浮空石或飞行器上的时候，吊桥和铁链可以随着飞行器拖动向高处垂直变成玩家可以攀爬的表面。最离谱的是，当铁链被究极手链接在一个自驱动大轮胎的外缘的时候，整条铁链可以跟着这个轮胎旋转、缠绕在轮胎外围，变成一个可以用来旋转开关门的开关……这些铁链的制作之精细、制作难度之高，都足以让任天堂成为业界楷模。很难想象，任天堂居然只需要一年 Debug 就能做到这种完成度，任天堂居然只付出了不到 20% 内置分辨率和帧数的性能代价（相对于旷野之息），就能让这样的系统在 Switch 上跑起来。

The "Ultrahand" and "Autobuild" are the most impressive and technically challenging abilities among all of Link's new powers - considering that they had to be implemented on the relatively underpowered Switch, comparable to a PS3, the technical challenges were likely multiplied several times. Take the example of the iron chains in "Tears of the Kingdom": you can find them on many temple drawbridges, broken bridges in the wilderness, and large gates controlled by iron chains. What's unbelievable is that you can grab any section of these drawbridges, freely drag, connect, and assemble them in mid-air, and all the iron chains will follow the movement of the bridge section you dragged. Nintendo even confidently designed puzzles around these drawbridges in several temples - people familiar with other game physics engine systems know just how

mind-boggling this is! Think about whether you have seen similar interactable elements in other games. Moreover, these iron chains can go even further, connecting to all the Sheikah Slate-powered components: when a drawbridge is connected to a small car, the car can drag the entire drawbridge forward. When the drawbridge is connected to a floating rock or aircraft, the drawbridge and iron chains can be dragged vertically with the aircraft, turning into a surface that players can climb. The most incredible part is when the iron chains are linked to the outer edge of a self-propelled large tire with Ultrahand; the entire chain can rotate with the tire, winding around the outer circumference, becoming a switch used to rotate and open doors... The intricacy and difficulty in creating these iron chains are enough to make Nintendo a model for the industry. It's hard to imagine that Nintendo managed to achieve such a level of detail in just one year of debugging, and it's astonishing that they only paid less than 20% performance cost (compared to "Breath of the Wild") in terms of internal resolution and frame rate to make this system work on the Switch.

对普通玩家体验来说，更直观的体验来自整个操纵杆零件-动力零件的设计体系。整个游戏提供了 27 个“标准”左纳乌零件，里面一半的零件设计逻辑极其复杂，但工作逻辑极其易懂，易懂易用到了无数主播已经用它们的物理和机械性能整出了数以万计的活，发售以来我每天都能在各种视频站上看到最新的“王国之泪技术革命”。尤其是操纵杆这个零件，它能控制几乎一切拥有自驱动的动力零件，在每个动力零件、每种重心配置、每个工作环境下都有不同的工作逻辑，其设计之复杂、实现水准之精炼让人除了“叹服”之外没有第二个词可以形容。能够和操纵杆一起配套使用的动力零件包括风扇机、火箭、大轮胎、小轮胎四个，数量极少，但每个的操纵和设计逻辑都极其符合普通玩家直觉，让大家根本意识不到这几个零

件在游戏设计上的复杂度。

For ordinary players, the most intuitive experience comes from the design system of the entire control stick components and power components. The game provides a total of 27 "standard" Zonai components, with half of them having extremely complex design logic but remarkably easy-to-understand and user-friendly functionalities. Countless players, including streamers, have used these components' physical and mechanical properties to create tens of thousands of different contraptions since the game's release. Every day, I can see the latest "Tears of the Kingdom technological revolution" videos on various video platforms. Especially noteworthy is the control stick component, which can control almost any self-propelled power component. It exhibits different operational logic for each power component, each center of gravity configuration, and every working environment. The complexity of its design and the refinement of its implementation leave one in awe, and there is no better word to describe it. The power components that can be used in conjunction with the control stick are limited to four: the fan machine, rocket, large tire, and small tire. Though their number is small, the control and design logic for each one are exceptionally intuitive for ordinary players, to the extent that players are unaware of the complexity of their game design.

如果将王国之泪和我的世界相对比, 就可以看出王国之泪如何把建造的过程变得简明易懂, 让不擅长复杂建造的玩家也能够快速上手且乐在其中。例如, 在我的世界中, 如果想制造一架飞机, 可能需要成百上千的方块, 并且飞机是不能飞行的。然而, 在王国之泪里, 只需要有翼和风扇机, 就可以轻松造出一架可以在空中自由遨游的飞机。为了优化玩家的体验, 王国之泪采用了相当多的直观化设计, 来优化整个究极手和蓝图的系统。每个设计看起来都

显然而直接,但对开放世界生存建造游戏来说都是相当有意义的设计细节优化和未来的进化方向。

When comparing "Tears of the Kingdom" with "Minecraft," it becomes evident how "Tears of the Kingdom" simplifies the building process, making it easy for players who may not excel at complex construction to quickly get into the game and enjoy it. For instance, in "Minecraft," constructing an airplane might require hundreds or even thousands of blocks, and the airplane itself cannot actually fly. However, in "Tears of the Kingdom," all you need are wings and a fan machine, and you can effortlessly create an aircraft that can freely roam the skies. To optimize the player's experience, "Tears of the Kingdom" employs a considerable amount of intuitive design to refine the entire Ultrahand and Autobuild systems. Each design may appear obvious and straightforward, but they hold significant meaning for Open World Survival Craft games in terms of design details, optimization, and the future direction of evolution.

为了简化操作难度,究极手允许玩家同时操纵四组轴向:主角林克自己的移动,玩家观察情况的镜头以及零件相对主角的高低、旋转关系,待组装零件和主角的距离关系,以及按下 R 按钮后两个轴的转动,算是把主流手柄上所有的摇杆和方向键都用了个遍。游戏内的旋转并不是像 3D 软件那样的自由旋转,而是以 45 度为单位的固定量旋转,极大简化了玩家的操作难度。王国之泪也优化了玩家和零件,以及零件于零件之间的交互方式,在每个主要零件上都投入了巨大的精力来放置吸附点,而且每个吸附点的吸附强度还不同,确保玩家可以轻松将大多数复杂形状的零件对齐。飞翼的操纵杆、翅膀和引擎位置,武器的瞄准线,各种可以接的板材方块等等,都做了非常强的关键位置吸附优化,多的比如操纵杆偏开 45 度以内都会被强制回正,闭着眼睛按也能装个八九不离十。当然,最对建造小白有利的设计,

还是蓝图：蓝图不需要玩家手动保存，而是自动保存玩家 30 步操作的历史；玩家看到任何野外感兴趣的建造物组合，都可以通过手动添加零件将其纳入自己的蓝图之中。这也是个很妙的设计，极大降低了一般建造玩法中复杂的蓝图获取和蓝图建造流程，更不用去处理玩家对整个蓝图系统的依赖性。这当然也不是任天堂第一个发明的游戏设计，但整个蓝图系统和制造历史合并的呈现，确实处理得清晰、简单，易于理解。

To simplify the control complexity, Ultrahand allows players to manipulate four sets of axes simultaneously: Link's own movement, the camera to observe the situation and the relative height and rotation of the parts, the distance between the assembled parts and Link, and the rotation of the two axes after pressing the R button, making use of all the joysticks and directional keys on mainstream controllers. In the game, rotation is not like the free rotation in 3D software but fixed at 45-degree increments, greatly simplifying player controls.

Tears of the Kingdom also optimized the interaction between players and parts, as well as between different parts. Considerable effort was put into placing attachment points on each main part, and each attachment point has different strengths to ensure players can easily align most complex-shaped parts. The control stick of the wings, the position of wings and engines, the aiming line of weapons, various attachable plate blocks, etc., all underwent strong key position attachment optimization, so even if they deviate by about 45 degrees, they will be forcibly corrected, making it easy to assemble with great accuracy.

Of course, the design most beneficial for inexperienced builders is the blueprints. Blueprints do not require manual saving as they automatically save the player's last 30

steps of operation history. If players encounter any interesting constructions in the wild, they can manually add the parts to incorporate them into their blueprints. This is a clever design that greatly reduces the complexity of obtaining and constructing blueprints in regular building gameplay, eliminating the need to manage player dependency on the entire blueprint system. While this is not Nintendo's first invention in game design, the combination of the entire blueprint system and manufacturing history is presented clearly, simply, and easy to understand.

只有这些当然还不够，要让基本没有接触过建造玩法的大众玩家接受这种玩法，难度合适的、经过精心设计的挑战也是必须的。王国之泪确实也很下血本，在这方面投入了巨额的内容。大约一半的神庙和野外解谜，都是围绕着究极手能力设计的。为了让玩家无论怎么游荡都能熟悉究极手，王国之泪不惜以极高的重复感为代价，在地图上超量铺设了三类新任务：至少四十个基于载具的神庙水晶搬运任务，八十一个帮助松达工务店固定牌子任务，以及整整一百个搬运呀哈哈的任务。除此以外，游戏的关卡设计也作出了巨大的改变，天空地面地下三层地图，所有林克可以到达的地点，都可以在两三百米内找到一个堆积着零件的建材场、工作坊或零件空岛；几乎所有的包括野外战斗和呀哈哈在内的兴趣点附近，你都可以找到设计师放置的，他认为对应的建造零件组。甚至就连战斗也是，新增的方块魔像简直可以说是新技能教程怪，直接可以用究极手打败，而旷野之息中天下无敌的人马也可以被各种各样的人马清理机全自动打败，甚至就连他们优先破坏零件的习性都变成了弱点之一。所有这些内容都从根本上改变了旷野之息的设计逻辑，让王国之泪这张基本结构相同的地图看起来同前作似是而非。甚至可以这么说：由于究极手的加入，王国之泪才会变成这样；建造玩法的影响就是如此巨大，要做好它，整个游戏的结构都必须与之前不同。

Indeed, providing suitable challenges with carefully designed difficulty is essential to

make this type of gameplay accessible to mainstream players who have little experience with building mechanics. "Tears of the Kingdom" has certainly spared no effort and invested substantial resources in this regard. Approximately half of the temples and outdoor puzzles revolve around the abilities of the Ultrahand.

To familiarize players with the Ultrahand regardless of where they wander, "Tears of the Kingdom" has taken the risk of repetitiveness and extensively placed three types of new missions on the map: at least forty vehicle-based temple crystal carrying missions, eighty-one tasks to help the construction store fix signs, and a whopping one hundred tasks to move Korok to its friend's side. Additionally, the level design of the game has undergone significant changes. The three-layered maps, including sky, ground, and underground, offer numerous material yards, workshops, or component islands within a distance of two to three hundred meters from any location accessible to Link. Almost every point of interest, including outdoor battles and Korok seeds, has been complemented with designer-placed component sets.

Even combat has been affected. The newly introduced cube golems can be considered as tutorial-level enemies that can be easily defeated using the Ultrahand. Even the formidable Lynels from "Breath of the Wild," which were previously invincible, can now be taken down by various mechanical contraptions. Their habit of prioritizing the destruction of components has become one of their weaknesses. All of these elements fundamentally change the design logic of "Breath of the Wild," making "Tears of the Kingdom" appear both similar and distinct from its predecessor. One can even argue that "Tears of the Kingdom" became what it is due to the inclusion of the Ultrahand. The

impact of the building gameplay is so significant that to execute it well, the entire structure of the game must be different from before.

通天术：真正的自由是上天入地

Ascend: The true freedom is to go up to the sky and down to the earth

通天术是一种可以让玩家快速向上穿越天花板从而提高自身高度的技能，它是为了解决“玩家无法快速到达高处”这个开放世界的问题而设计的，它的核心是“基于玩家无法看穿的实体结构的快速上升”。

"Ascend" is a skill that allows players to quickly ascend through ceilings, thereby increasing their height. It was designed to address the problem of "players being unable to quickly reach higher places" in open-world games. Its core concept revolves around "rapid ascent based on opaque entity structures that players cannot see through."

事实上，通天术这个功能最初是开发者用来快速逃生的作弊代码。游戏制作人青沼英二在接受 Polygon 采访时表示，在制作游戏时他们发现《王国之泪》中漫长而蜿蜒的洞穴非常乏味，以至于他们不得不在游戏的调试版本中加入能够特殊逃离的相关作弊代码。

“通天术实际上是我们在游戏中加入的一个调试时使用的作弊代码，”青沼英二表示。“当我在探索洞穴时，当我到达目的地检查完毕后，如果离开那里我就会使用这个作弊功能钻出来。”

“我想‘好吧，也许这是可以在游戏中使用的东西’，因为原路返回是一件很痛苦的事。而且直接穿墙出去也是个有趣的事，这就是为什么我们最终决定把这个功能添加到游戏中的原因。”

Ascend was originally developed by the developers as a cheat code for quick



escape. The game producer, Hideo Kojima, stated in an interview with Polygon that during the production of the game, they found the long and winding caves in "Tears of the Kingdom" to be very tedious. As a result, they had to add cheat codes to the debug version of the game that allowed for special escape.

"Ascend" is, in reality, a cheat code we added in the game for debugging purposes," said Hideo Kojima. "When I was exploring the caves and reached my destination to check things, if I wanted to leave, I would use this cheat code to tunnel out."

"I thought, 'Well, maybe this is something that could be used in the game,' because going back the same way was quite painful. Besides, going straight through the walls and getting out was also a fun thing to do. That's why we ultimately decided to add this function to the game."

其实，通天术的核心设计准则并不难想清楚：基于垂直坐标（Z轴）的上下对齐。只要高度纵向对齐，再把关键的地点重合，就能构建出基于通天术穿越的有趣捷径。当然，还需要提供一些限制，毕竟让玩家在一切高度中随意纵向移动肯定会变成 bug 地狱：王国之泪最终选择了“上下两端必须是平缓的”以及“从下往上穿越天花板的层高有限”，这也都不难想到。真正难的地方在哪里呢？在于怎么让玩家领悟到“哪些看不到的地方有价值去做通天术的尝试”，以及告诉自己的关卡设计师“什么样的关卡设计才是能让通天术有趣起来的”——这也是大多数游戏设计师想到这个点子，就会自己把它毙掉的原因。穿越天花板是如此的反直觉，一般玩家根本不可能做出判断，就连教通天术神庙门口的那个台阶都卡住了无数玩家。实际上，我看到很多玩了几十个小时王国之泪的玩家，仍然在本能地回避使用通天术，宁可去找自己看得到的、慢的多的道路。而且，什么样的关卡使用通天术才有趣呢？难道我们要

搭建一个完全上下对齐，类似写字楼这样的关卡，然后玩家在里面每一层像电梯一样穿梭吗？这明显也不是一个好玩的关卡啊。

In reality, the core design principle of "Ascend" is not difficult to understand: it relies on vertical alignment (Z-axis). As long as the heights are aligned vertically and key locations are overlapped, interesting shortcuts based on skywalking can be created. Of course, some restrictions are needed, as allowing players to move freely in all heights would lead to a buggy experience. "Tears of the Kingdom" eventually chose the restrictions of "smooth surfaces on the top and bottom ends" and "limited height when passing through the ceiling," which are relatively straightforward choices.

The real challenge lies in how to make players realize "which unseen places are worth attempting skywalking" and communicate to level designers "what kind of level design makes skywalking enjoyable" - this is also why most game designers might initially dismiss this idea. Passing through the ceiling is so counterintuitive that most players would not be able to make such judgments, even the staircase at the entrance of the temple that teaches the skywalking technique has stumped countless players. In fact, I've seen many players who have spent dozens of hours playing "Tears of the Kingdom" still instinctively avoid using skywalking, preferring to find visible and slower paths.

Moreover, what kind of levels would be fun to use skywalking in? Are we supposed to build a completely vertically aligned, skyscraper-like level, and then have players shuttle between floors like an elevator? Clearly, that wouldn't be an enjoyable level design either.

任天堂选择的答案看似简单，但实则非常恐怖：只要强制让关卡设计团队，将整个游戏

里所有可以通天术的地方都按照设计准则放上提示, 再让美术团队给每一种应该可以用通天术的情况都设计好独立的视觉提示, 玩家自然就会掌握通天术的反直觉逻辑。

Nintendo's answer may seem simple, but it's actually quite terrifying: by compelling the level design team to include hints for all possible teleportation spots throughout the game according to the design guidelines, and then having the art team create distinct visual cues for each situation where teleportation is applicable, players will naturally grasp the counterintuitive logic of teleportation.

为了满足通天术的设计准则, 任天堂重构了整张旷野之息的地图设计。随着你深入王国之泪, 你会对其中无数的“纵向对齐”设计印象深刻。每个现在居住着人或者曾经居住着人的城镇、废墟, 它的下面一定都有个在纵向上重叠的水井; 旷野之息中的每个山川、河流, 它的源头或山腹一定都对齐着一个山洞, 还特意设计了对应任务来提醒玩家。只要能做成空中交叉或者螺旋型的楼梯、走廊、树干, 就一定会想办法做成空中交叉; 只要能做成镂空投影的高处结构, 就要想办法做成高处会有镂空投影投下来的样式提醒玩家, 就连宝箱和神庙也被特意放在那种镂空的结构里面。在现实中其实很少使用的挑空结构, 操碎了王国之泪美术组的心: 建筑风格会有各种挑空和露台, 天上会掉下突兀的遗迹和石头镶嵌在山体上, 就连洞窟里的钟乳石也会割出平面暗示可以向上通天, 在地下世界甚至设计了可以直通天际的实心倒悬高塔。只要内容做的够多, 哪怕是“通天”这样反常识的设计, 也能逐渐让普通玩家接受。

To meet the design principles of teleportation, Nintendo reconstructed the entire map design of "The Legend of Zelda: Breath of the Wild." As you delve deeper into "Tears of the Kingdom", you will be deeply impressed by numerous "vertical alignment" designs. Each town or ruin, where people currently live or used to reside, has a well

underneath that aligns vertically; every mountain and river in the game has a corresponding cave aligned with its source or mountain flank, and corresponding tasks are deliberately designed to remind players. Whenever possible, they create aerial crossings or spiral-shaped staircases, corridors, and tree trunks; if there's a chance for a hollow projection from a high place, they make sure to design it so that players are reminded of this feature. Even treasure chests and shrines are intentionally placed within such hollow structures.

The extensive use of rarely seen suspended structures posed a challenge for the art team. The architectural style includes various suspended elements and terraces, with relics and stones jutting out from the mountains in unexpected ways. Even stalactites in caves are carved to suggest the possibility of upward teleportation. In the underground world, they went as far as designing solid inverted towers that directly lead to the sky.

By providing a rich and diverse content, including unconventional designs like "Ascend," Nintendo successfully managed to gradually make ordinary players accept and embrace these concepts.

通天术也极大地提升了王国之泪的自由度：利用通天术，玩家可以轻易地抵达过去需要攀登许久才能到达的高度。同时，由于通天术的原理，玩家上升之后所看到的景象上升前是未知的，这又进一步激发了玩家的探索欲望。王国之泪的关卡设计思想也变成了基于上下对齐的引导。最明显的，比如地下的传送点树根和地上的神庙一一对齐，玩家可以通过地下的树根光芒探索，发现地上的隐藏神庙；也可以反过来，先找到地上明显的神庙，再找到地下的隐藏树根。类似的对齐在游戏中随处可见，有些甚至已经到了脑洞的程度，比如地下的废矿对应地上的村镇，地下的魔人像对应地上的女神像，地下的人马 boss 对应地上的驿站，

等等。手笔最大，也最能代表这个设计原则的，无疑是地上和地下整体高度差的完全对应：玩家可以完全沿着地上的地图，反转过来在地下使用。地上的山就是地下的谷，地上的平原在地下也是平原，地下的高墙对应地上的水域，这样宏大的布局和巨大的开发量不太可能是项目后期临时决定的，更像是随着整个“上下对齐”思路确认后的产物。

Teleportation greatly enhances the freedom in "The Legend of Zelda: Breath of the Wild." By using "Ascend," players can easily reach heights that would have required extensive climbing in the past. Moreover, due to the nature of Ascend, the scenery seen after ascending was previously unknown, which further stimulates players' desire for exploration. The level design philosophy in "Tears of the Kingdom" also revolves around the alignment of the vertical axis. The most obvious example is the alignment between the underground teleportation points (tree roots) and the above-ground shrines. Players can explore by following the glow of the tree roots underground to discover hidden shrines on the surface, or they can reverse the process by finding obvious shrines on the surface first and then locating the hidden tree roots underground. Similar alignments can be found throughout the game, some even reaching the level of creativity, such as underground abandoned mines corresponding to above-ground villages, underground statues of demons corresponding to above-ground statues of goddesses, underground centaur bosses corresponding to above-ground stables, and so on. The most significant and representative aspect of this design principle is undoubtedly the complete alignment of the overall height difference between the surface and the underground: players can traverse the entire overworld map and then flip it to use it underground. The mountains on the surface become valleys underground, plains on the surface remain plains

underground, and high walls underground correspond to bodies of water on the surface. This grand layout and the extensive development involved in implementing it are unlikely to have been decided in the later stages of the project; rather, they seem to be the result of the "vertical alignment" concept being solidified and developed throughout the design process.

倒转乾坤：没错，俺就是逃课神器

**Recall: Yes, I am the ultimate cheatcode**

倒转乾坤的作用是保存所有可以受到时光倒流影响的物品之前相当长一段时间的移动轨迹。倒转乾坤的出现令许多玩家找到了神庙的“逃课玩法”，在解谜中被广泛应用于“逆转齿轮走向”、“回收飞行物品”和“逆转坠落物回到高处”等等。倒转乾坤也可以用于快速通关一些支线任务，比如有一个从水里捡娃娃放回到装娃娃的马车上，就可以利用倒转乾坤让娃娃自己飞回到马车上，从而实现快速刷钱的目的。

The function of "Recall" is to save the movement trajectory of items that can be affected by time reversal for a considerable period of time. Its appearance has allowed many players to find the "cheatcode" in shrines, which is widely applied in puzzle-solving, such as "reversing gear movements," "recovering flying items," and "reversing falling objects to return to higher places," and so on. "Recall" can also be used to quickly complete some side quests. For example, if there's a task to retrieve dolls from the water and place them back on a carriage, using "Recall," the dolls can be made to fly back onto the carriage on their own, achieving the goal of quickly farming money.

除此之外，倒转乾坤配合究极手，也有许多巧妙的玩法。例如，滑翔翼在没轨道的地方

是无法起飞的。但我们在高处的边缘用究极手它提起来然后放下，爬上去之后再对它用倒转乾坤，等它升到半空直接启动就行。在搬运呀哈哈的时候，其实只需要在箭上放上一捆柴，从狼烟处往呀哈哈那里射，再把呀哈哈粘到柴上，最后用倒转乾坤，能省不少时间。应该说，倒转乾坤的出现，让玩家找到了更多的逃课方法，而把更多的时间放在他们感兴趣的方面，

In addition, when combined with the "Ultrahand", "Recall" also allows for many clever strategies. For example, the glider cannot take off in places without tracks. However, by using the "Ultrahand" to pick it up and drop it at the edge of a high place, then climbing up and using "Recall" on it, you can make it rise to a certain height and then start gliding directly. When moving "Korok", you can simply place a bundle of firewood on an arrow, shoot it from the signal tower to "Korok's" location, stick "Korok" to the firewood, and finally use "Recall." This can save a lot of time. It can be said that the appearance of "Recall" has given players more ways to "play hooky," allowing them to focus more on the aspects that interest them.

### 余料建造：最被低估的能力其实工程量大到恐怖

**Fuse:** The most underestimated ability actually involves terrifying magnitude of work

余料建造允许玩家将游戏中任意两把武器或盾牌接在一起，或者将任意的材料放到弓箭上，同时给这个武器、盾牌或弓箭根据材料赋予新的性能。站在玩家角度，这个系统体验就还好，绝大多数玩家都感觉余料建造只是换了个名目的刷词条，很多玩家刷到究极的白银人马角就再也不更换了，整个游戏确实没有任何能在数值上抗衡白银人马角；能用的“剑柄”甚至比旷野之息还少，古代武器也消失了，很多旷野之息老玩家甚至觉得王国之泪的武器系统缩水了。弓箭余料也遇到了类似的问题：玩家常用的其实还是旷野之息里面几种元素和爆

炸箭，几百个不同材料很大程度上只是增加了操作时的负担。但是，如果站到研发团队角度评估成本……这个事情就恐怖了。实际上，王国之泪团队制作的并不只是那几十种武器，而是这几十种武器乘以所有可建造余料的总和！当我尝试用不同武器结合不同怪物材料时，发现了这个恐怖的事实：每一把武器和余料组合后的造型、性能、长短，几乎都是单独建模制作的，而且其中绝大多数会拥有独立的名称和性能，而不是简单地将两种东西拼在一起。哪怕我用最低的数字估计，王国之泪也在余料建造这个系统下，制作、测试了两三万把有独立建模和名称的装备！是的，任天堂也没有什么好办法可以简单地实现这个系统，他们的决定是——全部做出来。在玩家们新奇的体验背后，是大得惊人的工作量和汗水，以及能够把这样巨大的工作量坚持执行到底的决心和勇气。

"Fuse" allows players to combine any two weapons or shields in the game or attach any materials to bows and arrows, giving these weapons, shields, or bows new properties based on the materials used. From the player's perspective, the system experience is okay; however, most players feel that "Fuse" is essentially just a different name for farming better gear, and many players stop changing their equipment after obtaining the ultimate weapons like the "Silver Lynel Bow," which is unmatched in terms of stats. The variety of available "hilt" attachments is even fewer than those found in "Breath of the Wild," and ancient weapons have disappeared, leaving many veteran players feeling that the weapon system in "Tears of the Kingdom" has been reduced.

The bow and arrow scrap construction also faces similar issues: players mostly stick to using elemental arrows and bomb arrows from "Breath of the Wild," and having hundreds of different materials mostly adds to the burden during gameplay. However, if we consider the cost from the development team's perspective... it's horrifying. In reality,



the Tears of the Kingdom team did not create just dozens of weapons; they created dozens of weapons multiplied by all possible scrap constructions! When I tried combining different weapons with different monster materials, I discovered the terrifying fact: almost every combination of a weapon and scrap construction has its own unique design, performance, length, and most of them even have distinct names and attributes, instead of merely slapping two things together. Even if I estimated the lowest possible number, "Tears of the Kingdom" has produced and tested around 20,000 to 30,000 individually modeled and named equipment sets under the scrap construction system! Yes, Nintendo had no easy way to implement this system, and their decision was to make them all. Behind the players' exciting experience lies an incredible amount of work and effort, as well as the determination and courage to stick through such a colossal workload until the end.

王国之泪是否还能更好? 答案是: 可以!

Can Tears of the Kingdom be even better? The answer is: Sure!

王国之泪通过其精妙的游戏设计和大到骇人的工程量重新定义了开发世界生存建造游戏, 并为玩家带来了空前绝后的游戏体验。当然, 塞尔达系列肯定不会止步于此。王国之泪的续作还有提升的空间吗? 答案是: 有!

"Tears of the Kingdom" redefines the world of survival and construction games through its ingenious game design and astonishingly massive development effort, delivering an unparalleled gaming experience to players. Of course, the Legend of Zelda series will not stop here. Is there room for improvement in the sequel to "Tears of the

Kingdom"? The answer is: yes!

事实上，在王国之泪发售后，有许多旷野之息的粉丝并不看好这款续作。因为王国之泪的解谜比起旷野之息的确要容易许多，尤其是四大神殿，由于引导过于清晰，原先旷野之息需要花上几个小时破解的机关也许在王国之泪只需要几十分钟就能破解。神庙的难度比起旷野之息也低了许多：旷野之息的神庙绝大多数是三段式的，通常是教程-简单谜题-挑战谜题这样的结构，有时候挑战谜题太难了会被设为可选；但在王国之泪里，绝大多数的神庙都是一段式或两段式的。旷野之息有些神庙之间是有渐进性关系的，在王国之泪里也几乎不存在：在空中用飞机搬运水晶的神庙总共有 4 个，他们从结构到难度几乎都是一样的，如果在旷野之息他们大概率会被设计成同序列，但是难度不同的神庙。这当然不是任天堂做不出来三个有难度递进性和区别的神庙，而是他们设计目标就是这样的：不希望让玩家挑战太困难的内容。类似的设计在游戏各个角落随处可见，几乎每个子系统都是这样简单且重复的结构：总共有 140 多个山洞，但只需要 46 个就能兑换满所有奖励，里面大概有一多半山洞、水井的结构十分相似，最多只有三分之一的山洞和水井享有独特的设计。地下内容可能更过分一些，31 个地下装备藏宝图，不管是藏宝图隐藏的方式，还是最终拿到宝藏的结构，每种都至少有 3-4 份几乎一模一样的复制粘贴，而且难度几乎相同。40 多个依盖队设计图，9 个废矿设计图也基本都是相同难度的挑战，每个依盖队的基地样式也至少复制了三份，就连里面敌人开的载具设计结构都差不多。至于遍布地图的废矿山、采矿点、地下 BOSS 的复制程度就更高了，高到了不开地图都很难断定自己在地下哪个角落的程度。这些难度低、重复性高的内容，在前期也许能吸引玩家，但是后期难免会感到疲倦和枯燥。

In fact, after the release of "Tears of the Kingdom", many fans of "Breath of the Wild" were not optimistic about this sequel. The puzzles in "Tears of the Kingdom" are undoubtedly much easier compared to "Breath of the Wild," especially in the case of the

four major temples. Due to overly clear guidance, puzzles that players would spend hours deciphering in "Breath of the Wild" might only take a few minutes to solve in "Tears of the Kingdom". The difficulty of the temples is also significantly lower in "Tears of the Kingdom" compared to "Breath of the Wild". In "Breath of the Wild," most temples followed a three-part structure, usually starting with a tutorial, followed by simple puzzles, and ending with challenging puzzles. Sometimes, the challenging puzzles were optional. However, in "Tears of the Kingdom", most temples follow a one-part or two-part structure.

In "Breath of the Wild," some temples had a progressive relationship between them, while this is almost non-existent in "Tears of the Kingdom". For example, there are four temples where players use aircraft to transport crystals in the air, and all of them have almost identical structures and difficulties. In "Breath of the Wild," they would likely be designed as a sequence of temples with varying difficulties. This design choice is not due to any inability on Nintendo's part to create three temples with difficulty progression and distinction, but rather their goal was to avoid providing players with overly challenging content. Similar designs can be seen throughout the game, with almost every subsystem having a simple and repetitive structure. There are over 140 caves in the game, but only 46 are needed to exchange for all rewards, and a significant portion of the cave and well structures are very similar, with at most one-third of them having unique designs. The underground content might be even more extreme, with 31 underground equipment treasure maps, each having at least 3-4 copies of almost identical designs, and similar difficulty levels. The designs of the 40+ Yiga Clan design maps and 9 abandoned mine

design maps are also mostly of the same difficulty level, with each Yiga Clan's base style being replicated at least three times, and even the structures of the enemy-operated vehicles inside are almost identical.

As for the duplicated abandoned mine mountains, mining points, and underground boss locations scattered throughout the map, the level of duplication is even higher to the point where it's challenging to determine one's location in the underground without opening the map. While this low difficulty and high repetitiveness might attract players in the early stages, it is inevitable that players will feel tired and bored in the later stages of the game.

因此，为了满足不同人群的需求，任天堂可以考虑制作不同的游戏模式，每个模式有不同的侧重点。比如：解谜模式（神庙数量多，难度高）；冒险模式（怪物种类多，武器数量多）；探索模式（地图大，可探索地点多，支线剧情多）等等。在世界观和叙事设计方面，任天堂也可以参考《超时空之轮》，让玩家自由穿梭在不同时代的海拉鲁，这样可以使回忆的剧情（例如龙之泪）更具有代入感。

Therefore, to meet the diverse needs of different players, Nintendo can consider creating various game modes, each with different emphases. For example: Puzzle Mode (with numerous and challenging shrines); Adventure Mode (with a variety of monsters and abundant weapons); Exploration Mode (featuring a larger map, many explorable locations, and numerous side quests), and so on. In terms of world-building and narrative design, Nintendo can take inspiration from "Chrono Trigger" and allow players to freely travel through different eras of Hyrule. This approach can enhance the immersive experience of nostalgic plotlines, such as the story of "Tears of the Dragon." By

incorporating such diverse designs, Nintendo can attract different types of players and allow each individual to find a game mode that suits their preferences. Moreover, it will enrich and make the "Tears of the Kingdom" series more captivating and enjoyable.

总的来说，要创造后期体验更好的王国之泪，应该保留容易上手的前期，但同时也进一步优化那些具有挑战性的部分，将他们隐藏在地下的深处，水脉的尽头，洞窟的阴影里，给玩家提供比“只是把呀哈哈搬运到位置”或者“用浮空石扶起看板”更有意义的建造目标。要让玩家无论在游戏的前期，中期，还是后期，都能够找到自己的目标。即使在打败了最终 boss 后，也能在广阔的海拉鲁大路上享受探索和解谜的乐趣。我相信，以任天堂不断超越自我的决心和勇气，一定能够给我们带来更令人震撼的塞尔达传说。

In general, to create a better late-game experience for "Tears of the Kingdom," it is essential to retain the accessible early-game content while further optimizing the challenging parts. These challenging aspects should be hidden in the depths of the underground, at the end of water veins, or within the shadows of caves, providing players with more meaningful construction objectives than merely moving Korok to a location or propping up a sign with a floating stone. The goal is to ensure that players can find their objectives regardless of whether they are in the early, middle, or late stages of the game. Even after defeating the final boss, players should be able to enjoy the pleasure of exploration and puzzle-solving on the vast roads of Hyrule. I believe that with Nintendo's determination and courage to continuously surpass themselves, they will undoubtedly bring us a more stunning Legend of Zelda experience.

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