skies adrift

game document

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summary

In the Skies Adrift game document we help you to find the wanted rubric by a color code in a pastille for each one and on each page. You will never be lost.

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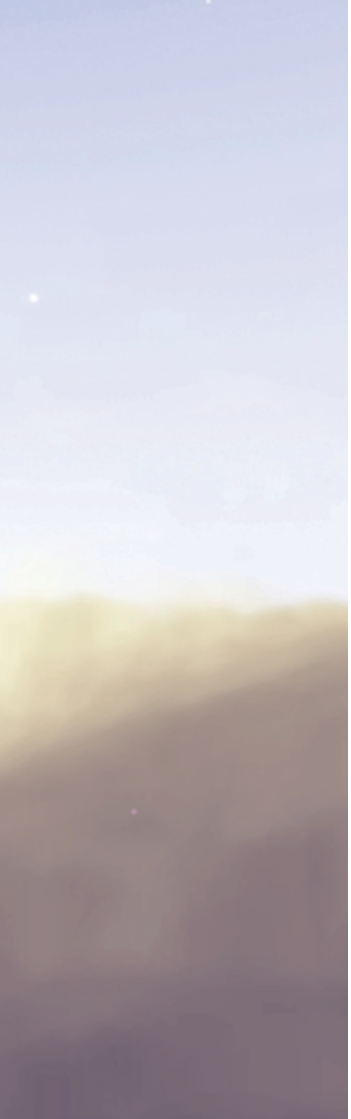
tion

let's introduce *skies adrift*

Skies Adrift was developed by a team of ten ENJMIN's students. It represents their last project made at school, six months (from October to March) of conception and prototyping. The main objective of the project is to give the students the opportunity to work on a vertical slice demonstrating the viability of the game to a jury of professionals.



introduction

basics

pitch

In Skies Adrift, the player is Waban, a fisherman living in a world covered with clouds and scattered floatings islands. Waban uses an old flying ship to practice his craft. Passed on from father to son, no one remembers how this boat ends up in the family. His people are used to live in tough condition, always trying to survive.
During a fishing trip, he finds a small amount of a rare energy, the Blue Wind, that awakes the latent potential of the ship. Waban understand the link between his ship and the Ancients' civilisation. According to the legend, the ancients were from a peaceful and flourishing land, a promised land. When they disappeared, the ancients left a sky door behind them, a way to find the promised land. Hoping the potential of his boat will lead him to the Skygate, Waban leaves his village and goes discover the mysteries of his world.

USP

In Skies Adrift you will explore a sea made of clouds with a lot of mystery to reveal.

- Navigate on a changing sea of cloud
- Use your skills to gather the Blue Wind
- Use the Wind to interact on puzzle pieces
- Reveal the hidden secret of the Ancients

project identity

We plan to launch the game in 2015.

Platform: PC, PS4 and Xbox One
Number of player: single player
Genre: Exploration & Adventure
Target audience: General Audience Gamers enjoying discovery, a huge mysterious world and looking for good balance between challenge and contemplation.
PEGI: 12+
Length of play: 6 - 8 hours

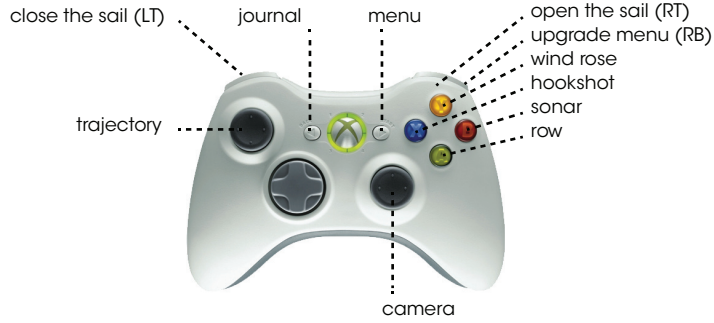
The project is developed with Unity 3D and Wwise

3C

Character:
The player is Waban. To travel this vast landscape, he uses an ancient ship. Without docking, he interacts with the environment using a hookshot.

Camera:
Skies Adrift is a third person game. The player can move the camera around him self. There are two type of camera, wide shot of the ship and closeup of the character.

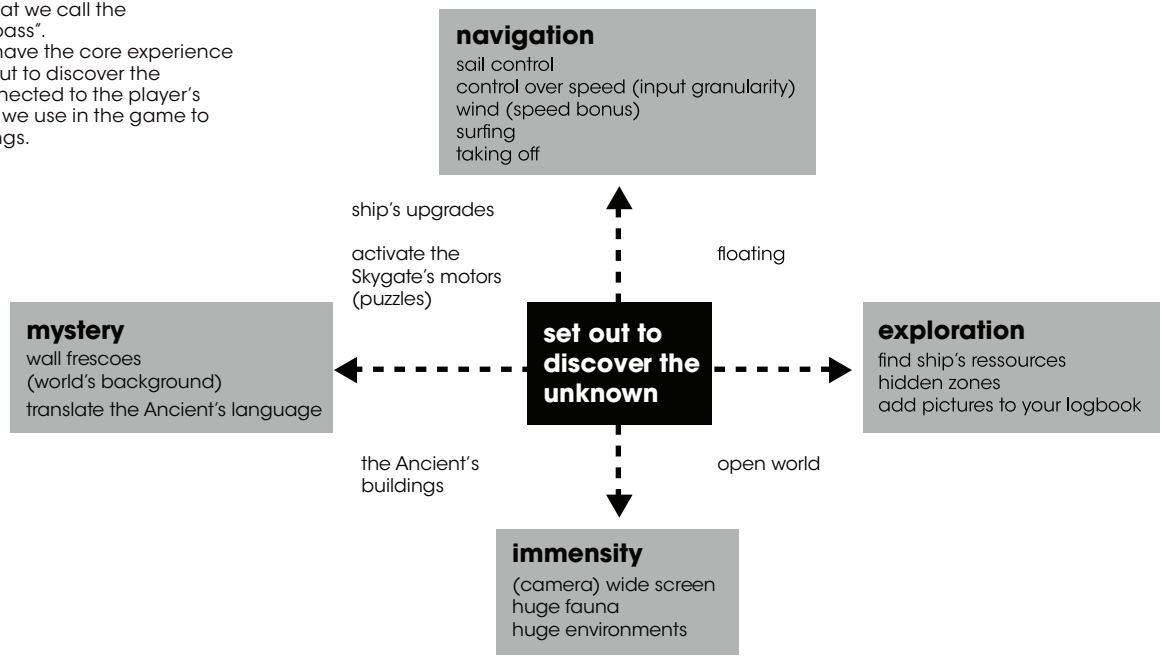
Controller:



introduction

game's experience

This diagram is what we call the "experience compass".
At the center, we have the core experience of our game: set out to discover the unknown. It is connected to the player's feelings and what we use in the game to create those feelings.



game design

In this part, we will explain the detail of each features of Skies Adrift.

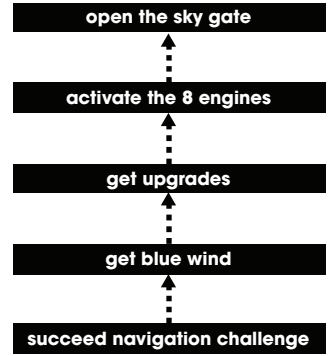
Through the player goal, the motivation, the gameplay and the background, we will see how and why the game is designed the way it is.

game design

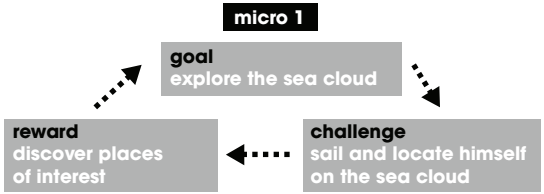
general

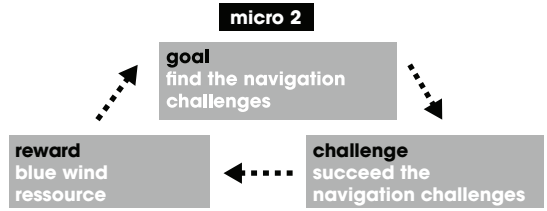
general progress

The goal of the game is to open the Skygate in order to find the way to the ancient promised land. To open the Skygate, the player has to reactive the eight Ancient's engines. Each reactivation involve the resolution of a puzzle. The player will sail on the cloud sea, looking for those engines,and will try to reactivate them without really knowing their effects on the world. In order to solve the engine's puzzle, the player needs to upgrade his ship. Ten units of "Blue Wind" are necessary to upgrade one element of the ship. The Blue Wind can be gathered by succeeding the navigation challenges.

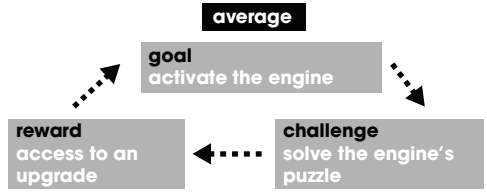


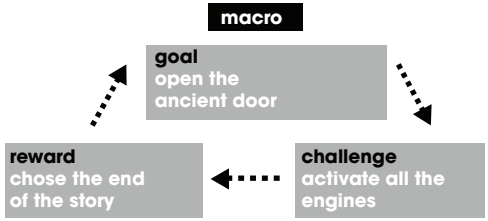
gampelay loop

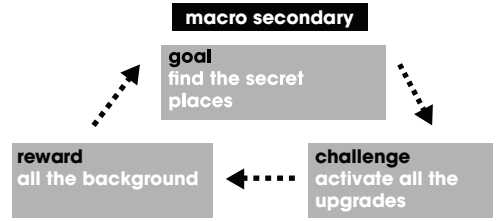




game design


average
goal
activate the engine
reward
access to an upgrade
challenge
solve the engine's puzzle


macro
goal
open the ancient door
reward
chose the end of the story
challenge
activate all the engines


macro secondary
goal
find the secret places
reward
all the background
challenge
activate all the upgrades

game design

the ship

The ship was made by the ancients, but his potential is asleep. Waban uses it only as a fishboat, but it has much more capacities. The ship is the only way for the player to go through the world. As the player control only the ship for the entire game, we make sure Waban is always doing something on it, constantly moving.

upgrades

The player needs to awake the full potential of the ship by gathering a resource : the Blue Wind. It can be found on every navigation challenge. There are eight upgrades, every time the player reactivate an ancients' engine, he gain the possibility to upgrade one element of the ship. The order of the upgrade releases is : Sail 1, Hull 1, Hookshot 1, Rudder 1, Sail 2, Hull 2, Hookshot 2, Rudder 2.

One upgrade cost ten units of blue wind. The player will need to upgrade all the elements to the level 1 to finish the story. To totally complete the game and discover all the secrets and Ancient's mysteries, the player needs to upgrade all the elements to the level 2.

	upgrade 1	upgrade 2
sail	**bottom sail** higher max speed	**ancients' sail** better wind speed bonus
hull	**aerodynamic hull** longer flights	**ancients' hull** allow the player to sail on dangerous area
hookshot	**reinforced rope** better range, can break wood	**ancients' claw** can hook new surfaces
rudder	**large rudder** better acceleration	**ancients' rudder** better handling

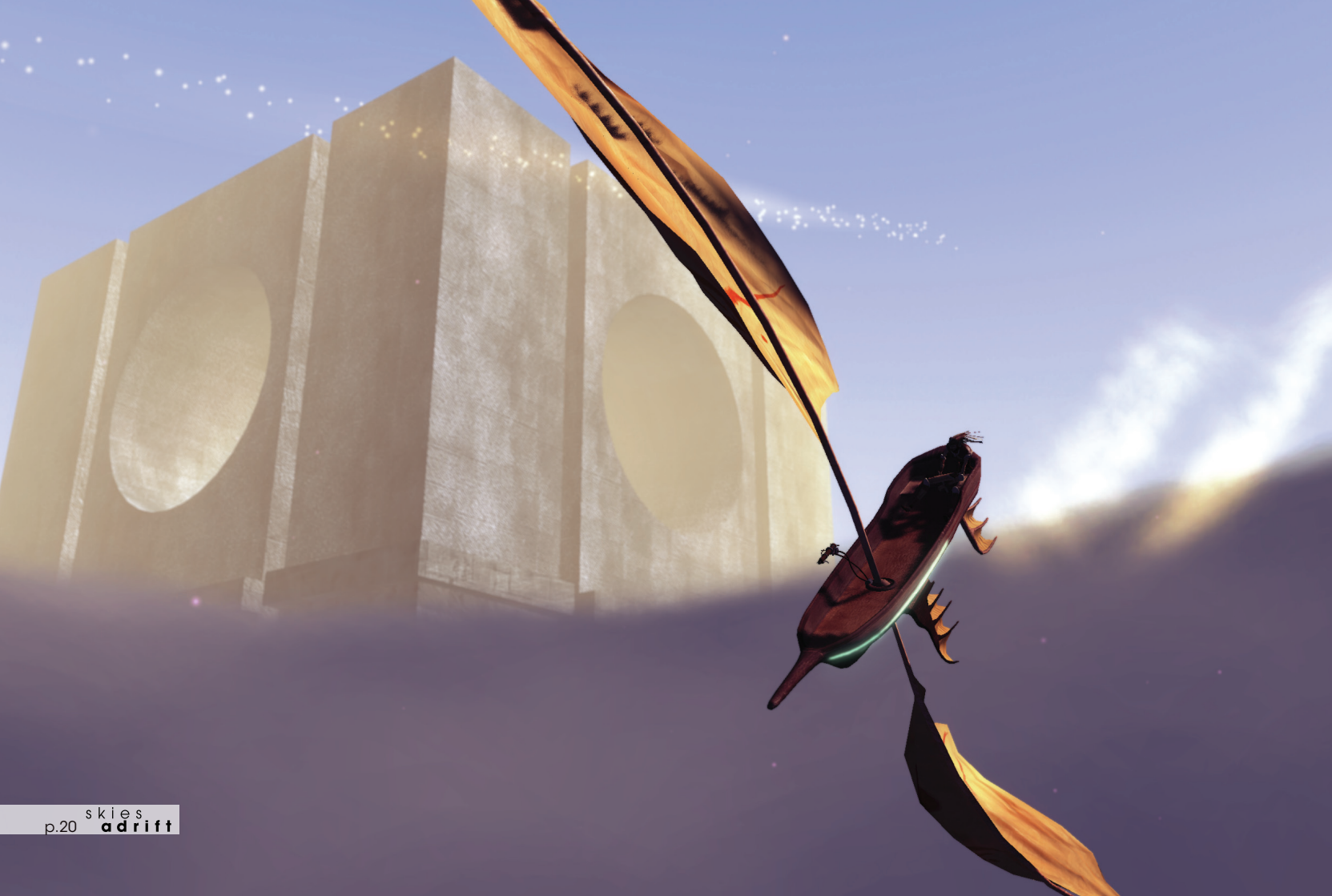
game design

wind rose

The wind is an important part of the navigation gameplay. If you sail with the wind on your back, you get a speed bonus. This is the reason why the player's understanding of the wind direction is important.The ship's Wind Rose allows the player to see what's the wind direction at any moment by pressing the "Y" button.

sonar

The sonar is a way for the player to orientate himself on the cloud sea. It is accessible by simply pressing the "B" button. The ship generates a sound and two seconds after the next Ancients' engine to activate generates the same sound. This audio feedback allows the player to know where is his next direction to progress through the game. The note generated by the ancients' engine is playing stronger when the ship is the closest to the ancients' engine. There is also a visual feedback when the player uses the sonar : a circle appears under the ship and after two seconds, one part of this circle is highlighted to show the good direction



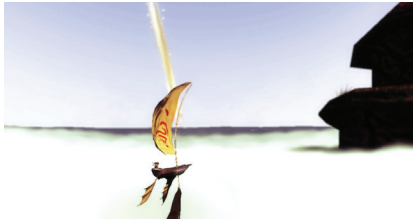
game design

navigation

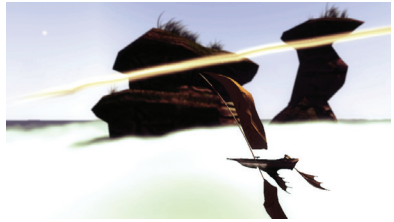
The player can open or close progressively the sail using the two analog triggers. The more the sail is open, the faster is the ship. Having the wind on the back of the ship allows the player to increase his max speed and allows him to use the topography to flight above the ocean of clouds. When the ship is stationary (when the sail is completely close) the player can move slowly by pressing the "A" button, allowing him to progress through more confined spaces.

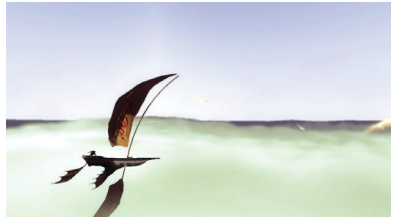
camera

standard view
When the ship is stopped
The camera always focus on the horizon

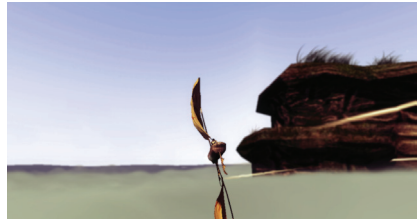


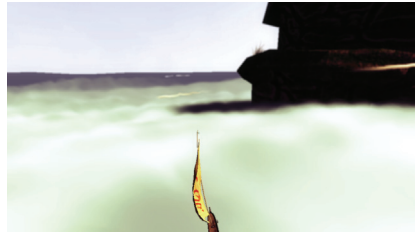
The camera can turn 360° around the ship.





The camera can tilt up and down.
It allows the player to see above and below the ship.

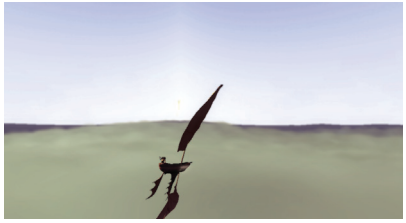




game design

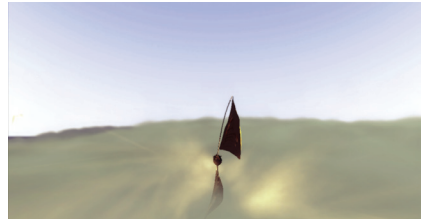
standard view

We developed an intelligent camera.
To allow a comfortable view, the camera crops where the player is looking.



acceleration

The camera zoom in when the ship is at high speed.

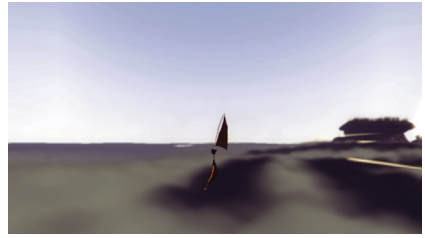


with the avatar

There is a second camera that allows the player to come closer to his avatar.
This camera can turn 360° around the character's sight.

take off

The camera zoom out when the ship takes off the clouds.



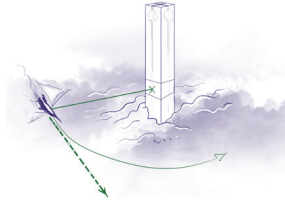
hookshot

The hookshot is the main gameplay element after the sail. The operation of the hookshot is simple: the player target an element allowing the hookshot to fix and activate it by pressing the "X" button. The hookshot then go straight towards the element and fix on it. If the object is fixed the player travel path is changed, however if the object is not fixed, it will follow the player. The hookshot does not exert traction once fixed. When the player decides to activate the return of the hookshot, he press the "X" button again : It detaches from the element and goes back to the boat. The hookshot also returns automatically if the tension exerted by the boat is too strong. The player can use the hookshot in two different ways:

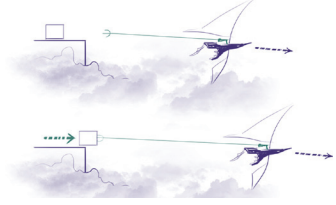
To influence the navigation:
- U-turn
- Brake
- Quick Redirection

To interact with some environment objects:
- Pull an object
- Breaking an object by pulling

Example: a rapid redirection through the hookshot



Example: traction of an object through the hookshot



How the hookshot works?

The sight

To find out where the player can use the hookshot, the game uses a reticle. It appears on the point of each element where the hookshot can fix. There is only one apparent reticle on the screen and between two elements, the game choose the element most centered in the axis of the camera.

game design

The activation

To launch the hookshot, the player press the "X" button . There are several restrictions on the activation at the input: a reticle must be present on the screen, the hookshot must not going back to the ship and it must not already be fixed at something . When the player press the button again, the hookshot loses its grip on the element and goes back to the boat.

The length of the rope

The hookshot has a maximum and a minimum distance.

When the maximum distance is reached without encountering a surface, the hook automatically goes back to the boat. As long as the gripper is attached to a surface, the rope remains tight even if the player goes away from or toward the surface. If the minimum / maximum distance is exceeded, the hookshot goes back to the boat.

The stone is an heavy and non destructible element, the wood is a lighter and destructible element.

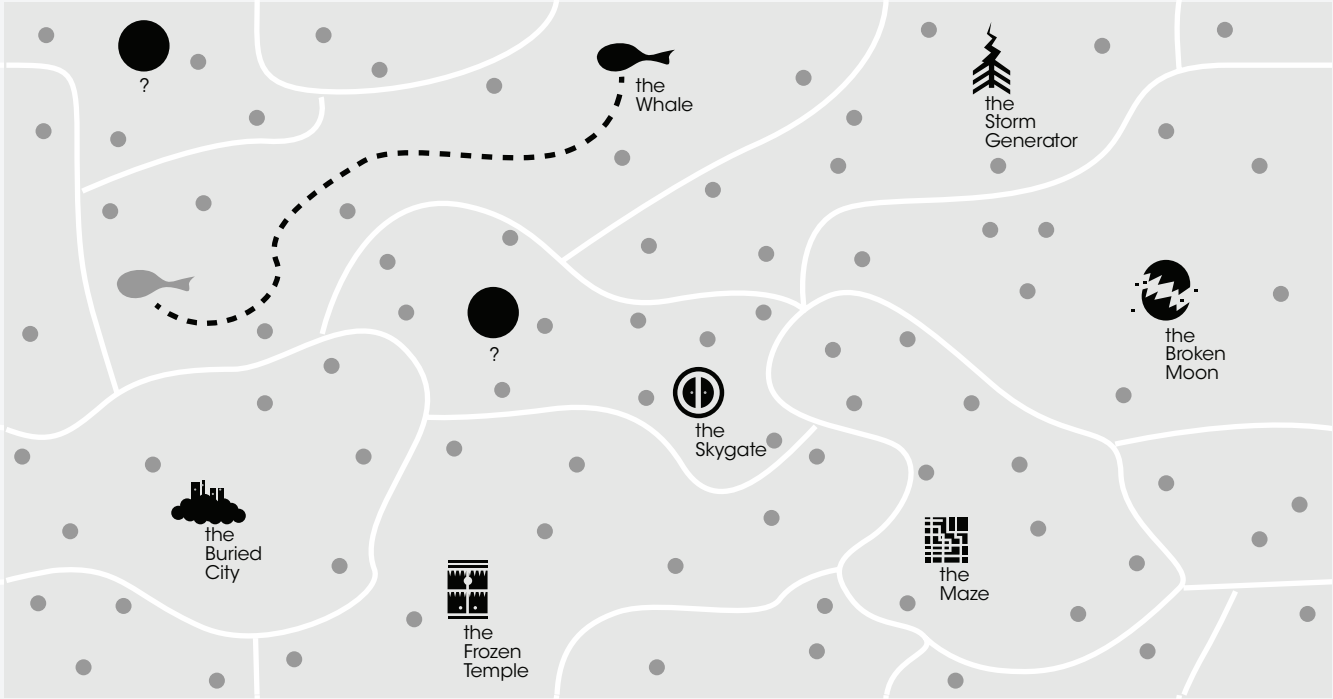
Nature of the interactive elements with the hookshot.

	fixed element		moving element	
element's nature	stone	wood	stone	wood
impact the player	the race of the boat change of direction	the race of the boat don't change of direction	the race of the boat slightly change of direction	the race of the boat don't change of direction
impact the element	the element don't move	the element break	the element hardly move according the axis of the hookshot rope	the element follow the player according the axis of the hookshot rope

game design

level design

Skies Adrift is an open world in which the player can navigate freely, the only restriction are due to the upgrades of the ship : to reach some specific places, the player needs specific upgrades. The world is an entire planet , going to the extreme north bring you to the south. Same thing for east and west. Zones of interest are centered around the eight Ancients' engines - except for one which is in constant movement - and the Skygate. Navigation challenges are dispatched all around the world.


?
the Whale
the Storm Generator
?
the Broken Moon
the Skygate
the Buried City
the Maze
the Frozen Temple

game design

World Map

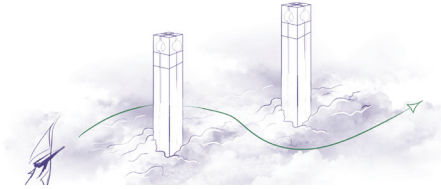
- navigation challenges
- whale's way

Navigation Challenges

The world is filled with navigation challenges. Each challenge allows the player to gather some of the Blue Wind. The difficulty of the challenges varies, but the game always asks the player to use his navigation skills. There are 80 challenges. Some of the challenges are available at any moment on the game. Others implies a specific upgrade, for example the player may need the first hull upgrade to succeed a challenge and reach some of the Blue Wind. Other challenges only appears when an ancients' engine is activated.

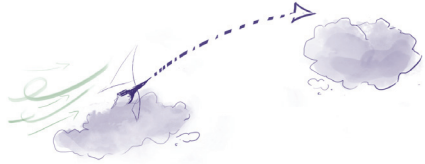
The navigation challenges are based on three particulars mechanics:

The ship manoeuvre :
The player has to dodge obstacles, take good direction for the flight or the hookshot and manage the ship's speed.



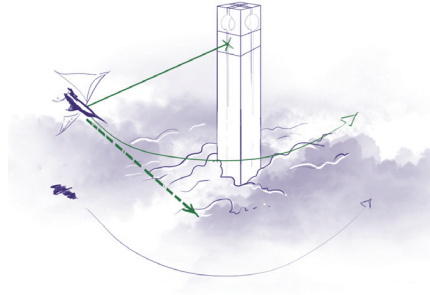
The flight :

When the player is at the top of a slope, on max speed and with the wind on his back, he can take off. In the level design, we use this flight as an ability to jump between cloud's platform.



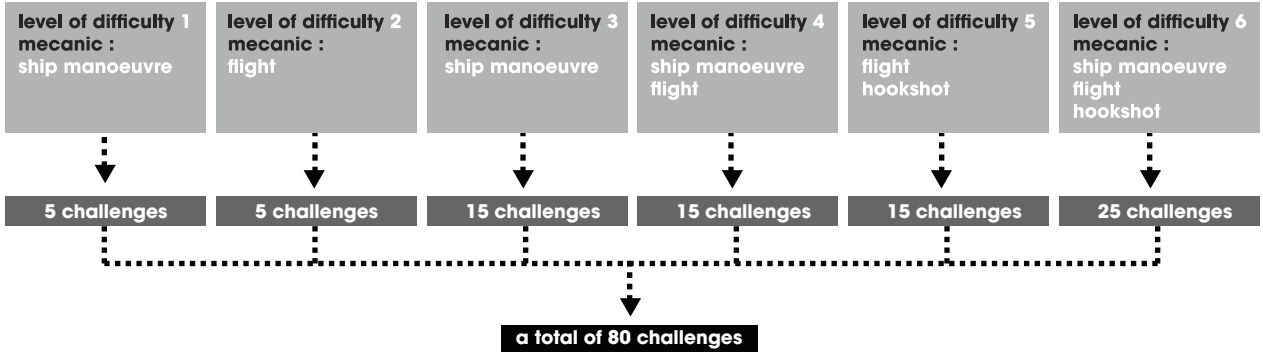
The hookshot :

The player can use the hookshot during the navigation to quickly influence the path of the ship. This redirection is available on the clouds and in the air. This mechanic is the most complicated to master but the most spectacular and the most generative of thrills.



At the end of each challenge, the reward is an amount of Blue Wind.

game design


level of difficulty 1
mecanic :
ship manoeuvre
level of difficulty 2
mecanic :
flight
level of difficulty 3
mecanic :
ship manoeuvre
level of difficulty 4
mecanic :
ship manoeuvre
flight
level of difficulty 5
mecanic :
flight
hookshot
level of difficulty 6
mecanic :
ship manoeuvre
flight
hookshot
5 challenges
5 challenges
15 challenges
15 challenges
15 challenges
25 challenges
a total of 80 challenges

Ancients' engines

There are eight Ancients' engines which serve as energy generators for the Skygate. To activate those engines, the player needs to resolve some puzzles. Once an engine is activated, it triggers some changes on the environment, modifying the meteorology, activating storms, unlocking navigation challenges, etc..

Puzzles often implied different uses of the hookshot, the player can pull elements, rotate or broke them. To solve some of these puzzles, the player needs to upgrade some elements of his ship. The last puzzle will ask the player to have all the level 1 upgrades. Each time the player solves a puzzle he gains the possibility to upgrade one element of his ship. This element will be needed to the next puzzle to solve.

We will present you six of those engines with their concept art to give an idea of the mood and the variety of the differents areas of the game. Each of those engines is completly unique.

the storm generator

The ancients build the engine here because it lies at the intersection of different winds. They dug the floating island who stands there to build their giant accumulator inside. It condenses the wind's energy accumulated to modify the weather and generates localised storms around the engine.

Once activated, several storms appear, allowing new navigation challenges. It also currently triggers the apparition of the Whale (which is the next engine).

the whale

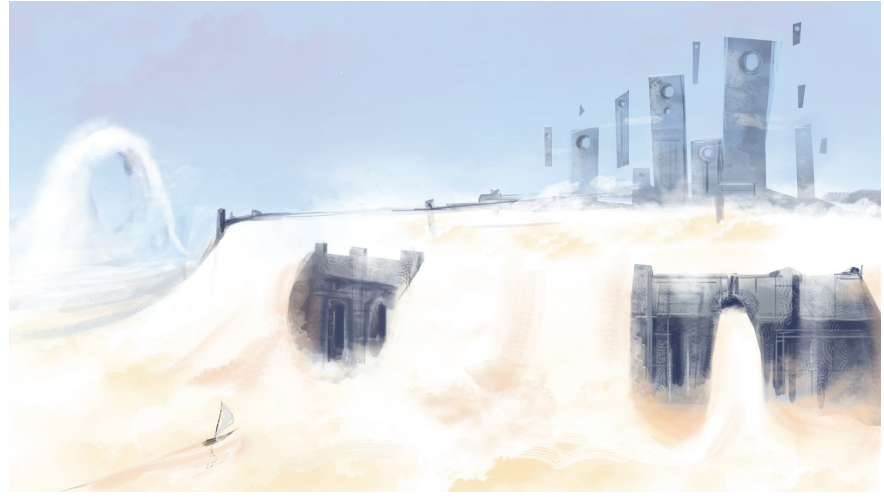
This old Whale merged with the engine, she's since always restless and constantly moving around, fled by the other whales. The player has to chase her, and has to get swallowed in order to activate the engine.

Once activated, the whale froze and become traversed by streams of Blue Wind, forming a new unique island in the clouds.

the buried city

Clouds are covering an Ancients' city which the player has to explore in order to find the engine.

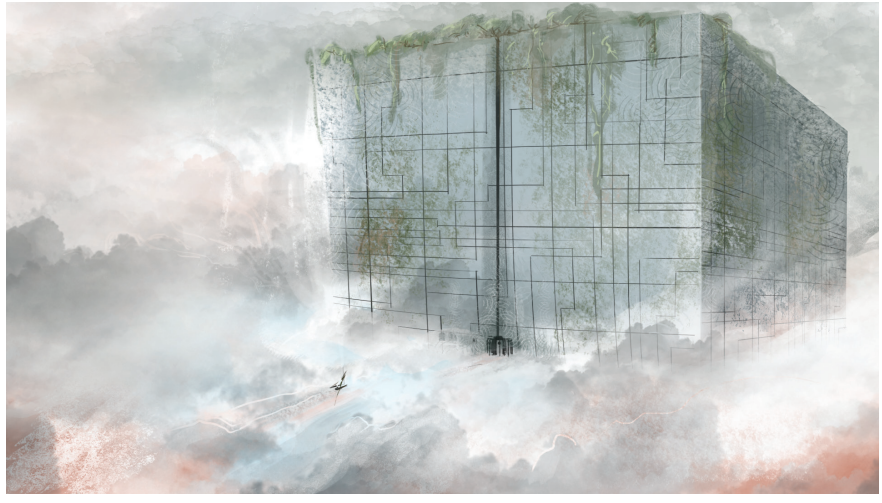
Once activated, wind blows stronger and the city gets rid of all the clouds revealing the rest of the city and allows the player to explore further inside those old buildings.



the maze

The player enters a gigantic palace and has to locate himself in order to find the engine, hidden inside. He discovers a part of the history of the Ancients written on the walls.

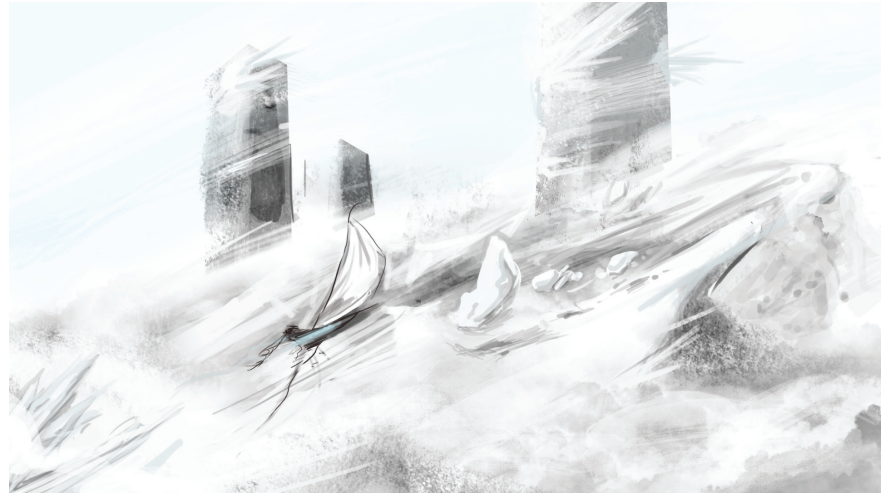
Once activated the maze separates himself and deployed himself around, allowing the player to reach the sky using the different platforms created.



the frozen temple

A frozen region. Clouds are partially frozen and form some rails on which the player can slide with his boat.

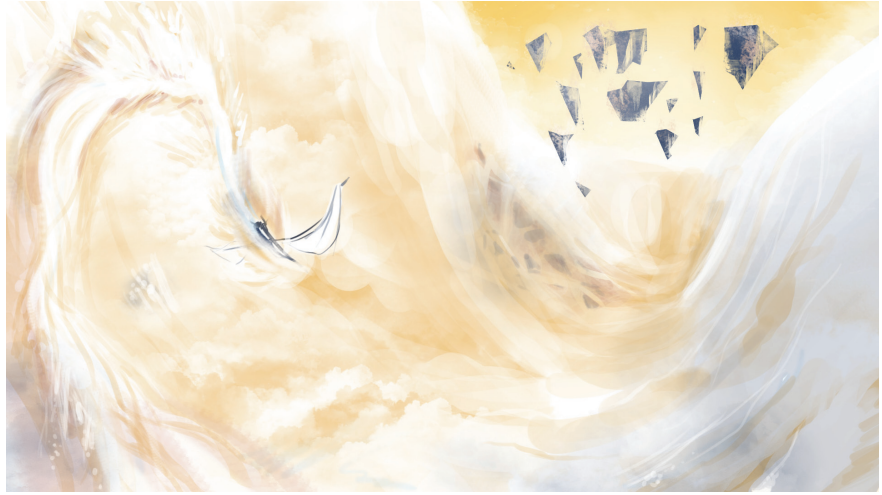
Once activated, the ice explode, scattering in the clouds, creating new navigation challenges around but making the entire area more dangerous.



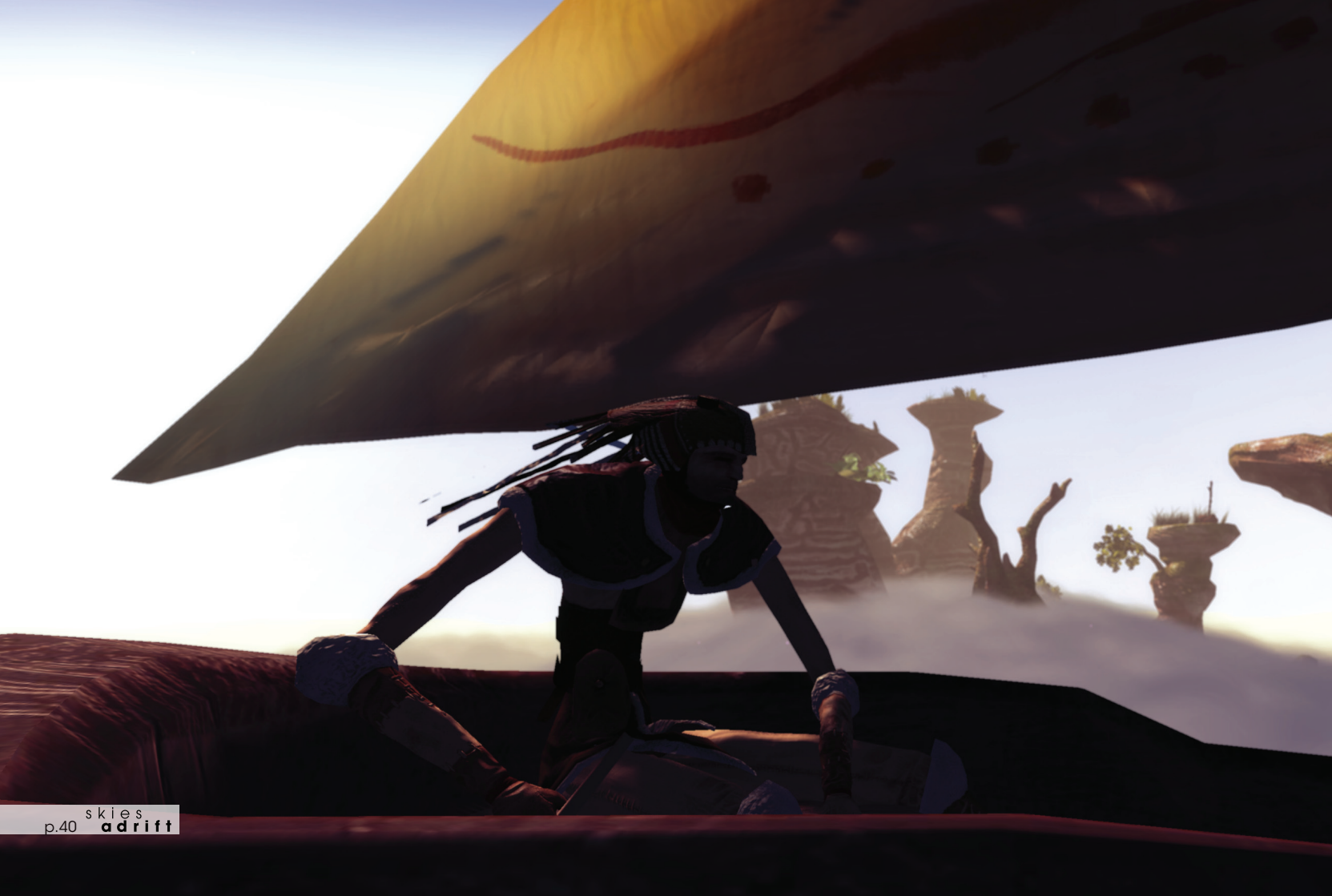
the broken moon

The Ancients built one of their engine in the Moon's debris, which float above the clouds. Reaching the engine requires mostly navigation skills unlike the others engine which involve puzzles.

Once activated, the debris disperse, and form new navigation challenges.




game
design



game design

universe

The vast cloud's sea contains various elements.

The Skygate
The Ancients' engines
The Ancients' architecture
The islands
The local inhabitant's housing
Wreckages

The landscape changes appearance because of the weather. The player can travel through :
- luxurious regions.
- dry and windy regions.
- cold and snowy regions.

the fauna

Flying Whales

Flying whales are giant lonely creature that live in the humid air.
They only can be seen in the daytime.
They are herbivorous and jump out of the clouds vertically to grab the vegetation on the islands and the architecture. The whales also jump out of the clouds to play.
Floating over the clouds is a game of those creatures.

Game Mechanics
If the ship surfs under the beat while it is floating, the player gains a speed boost.
If the player harpoon the whale, he will gain a speed boost. However, the creature will struggle and may hurt the ship (the challenge is to avoid the sweeps of its tail, the boost is the reward).

Jellyfishes

Jellyfishes are giant creatures which move in small group in the night-time.
Those beautiful creatures emit fluorescent lights at night. At daytime, those creatures sleep hung onto rocks, they do not emit light in the daytime.They are carnivorous: they use web made with drool to capture flying squirrels and lizards. Contrary to their multiple tentacles, their head is harmless.

Game Mechanics
If the ship slide between those creatures, the player gains a speed boost.
The player can't harpoon the jellyfishes.
They provide light at night, which is useful when there is no other lightsource.

Flying Squirrels

They are small creature living anywhere (islands, architectures, house roofs).
They fly from place to place using the wind blow and they are sometimes captured and eaten by jellyfishes.

Feedback
The squirrel is used in our game as a dynamic feedback that helps the player to visualize the wind blow and its orientation.

Rock Lizard

Rocks Lizards live on the massive rock that came out of the clouds.
Their dark skin acts as a camouflage. If a creature comes to close of their nest, they will make an scary noise to frighten the predator. The noise also keeps the jellyfishes away.

Feedback
Rock Lizards are used in our game as a dynamic feedback that points out that the ship is to close from some obstacles, rocks or buildings.

Shoal of fish

Shoal of fish live in the cloud's sea, they are attracted by things in movement, so they usually appear next to bigger living things. They're eaten by the whales, so they usually try to avoid them, and flee when they approach.

Feedback
Shoal of fish follow the player when he is at full speed, and they're also an indicator of the presence of whales around because they will flee if one is approaching.

Birds

Birds fly high in the sky and never land. They regroup next to dead things in order to eat them, and then fly away as quick as they

can.

Feedback
Being next to birds indicate some potential danger, hearing their scream alert the player who's on guard and more attentive.
The Ancients

the background

The Ancients are people the inhabitants of the cloud ocean don't know anything about: they don't remember if there were human beings or gods and what happened to their civilisation.

At the beginning, the Ancients used to lived on the ground. The weather started to change and a dense fog came out of the earth. They built vertical constructions in order to escape the fog, letting their belongings behind. As the fog grew, their buildings got higher until the fog's level stabilized, creating a vast landscape of clouds. However, the clouds was so dense they couldn't reach the ground. The Ancients were blocked. They took it as an occasion to restart everything.

They colonized the floating islands in the sky, always trying to not interfere with the first inhabitants of this world. The sky was the source of an incredible energy : the Blue Wind. They succeeded to master it and used it to developed their technologies and their new world.

The centuries passed in this way and an old dream resurfaced : returning to the ground. They started create eight powerful engines to channel all the potential of the Blue Wind in one spot. On this particular spot, they built the Skygate, a machine supposed to gather all the channeled Blue Wind energy and create a path to their home.

Finally one day, the Ancients disappear.

Nowadays, above the cloud's sea

After the disappearance of the Ancients, the inhabitants began to forget why they were here and where they came from. Generation after generation, they forgot all the details of the Ancient's civilisation, only one legend remains among the inhabitants: the Ancients come from a promised land and they have left some clues to find it.

Nowadays, the life on the cloud's ocean is really difficult: the weather is often cold and dry, the food is rare and there are some clans who decide to raid the others in order to take their goods. All those life conditions have made the inhabitants gradually disappearing. Therefore they are less numerous than before. The few habitations left are poor, made of wood and parasitizing Ancients' architecture. The buildings rot and their inhabitants dwindle and despair, protecting themselves from raiders and scratching what they can off the clouds and their islands.

art direction

visual design of a special universe

In order to immerse the player in an oniric journey among the clouds, we put special attention to the visual design of our game. The challenge was to create a whole universe for the player to discover, with a strong and personal identity. We will start explaining our global visual intentions supported by our references and inspirations. Then, we will develop how we built the universe: the lighting, the islands, the Ancients, the character (Waban), the ship and the fauna. We will talk about the interface and about the communication around the game. We will finish with the technical issues that occured and the solutions we've found to fix them.

art
direc
tion

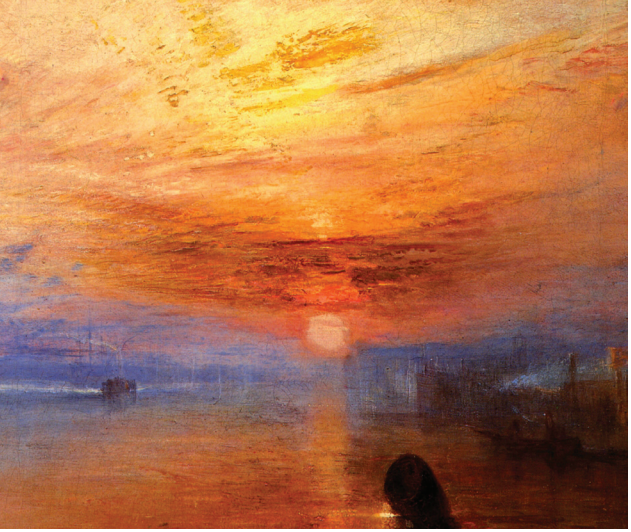
visual intentions

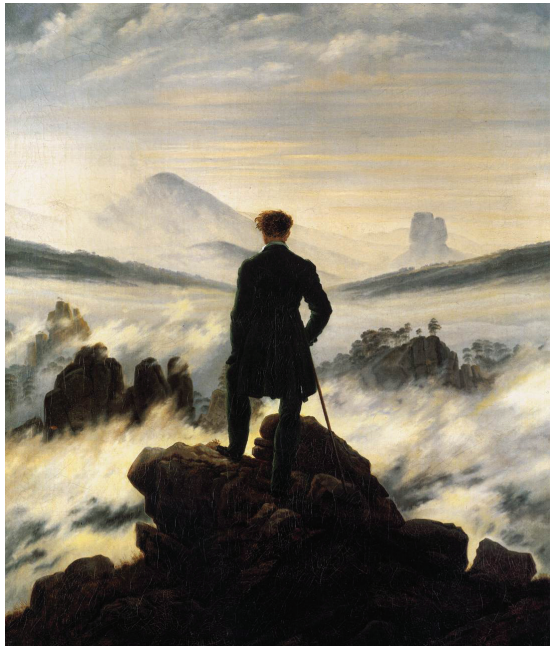
The player incarnates Waban, a fisherman sailing into an ocean of clouds.

The aim is to get the player lost in a moving and magnificent universe, overwhelming the avatar by its dimensions. He is subdued to the agitation of the elements and to glare, in the tradition of the "sublime". Emptiness and silence are also active parts of our experience.

The game takes place in an ocean of clouds dotted with islands. Wind, air, humidity and light are important elements.
Light and color have a strong role in the representation of this universe. The light floods space and sculpts the form of the objects. Penetration of light into the forms will create a link between the objects, making their limits and frontiers blurry and moving. The colors, bright and shimmering, will enhance the sensation of dazzling, highlighting the great movements of the universe around the character.

Clouds are at the base of the game's universe. They are infinitely changing shapes and textures: sometimes light and diffuse, sometimes dense and creamy. They can be charged with rain and lightnings or solid and cold… They will provide a large amount of possibilities in terms of environments and gameplay situations.





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references and inspirations

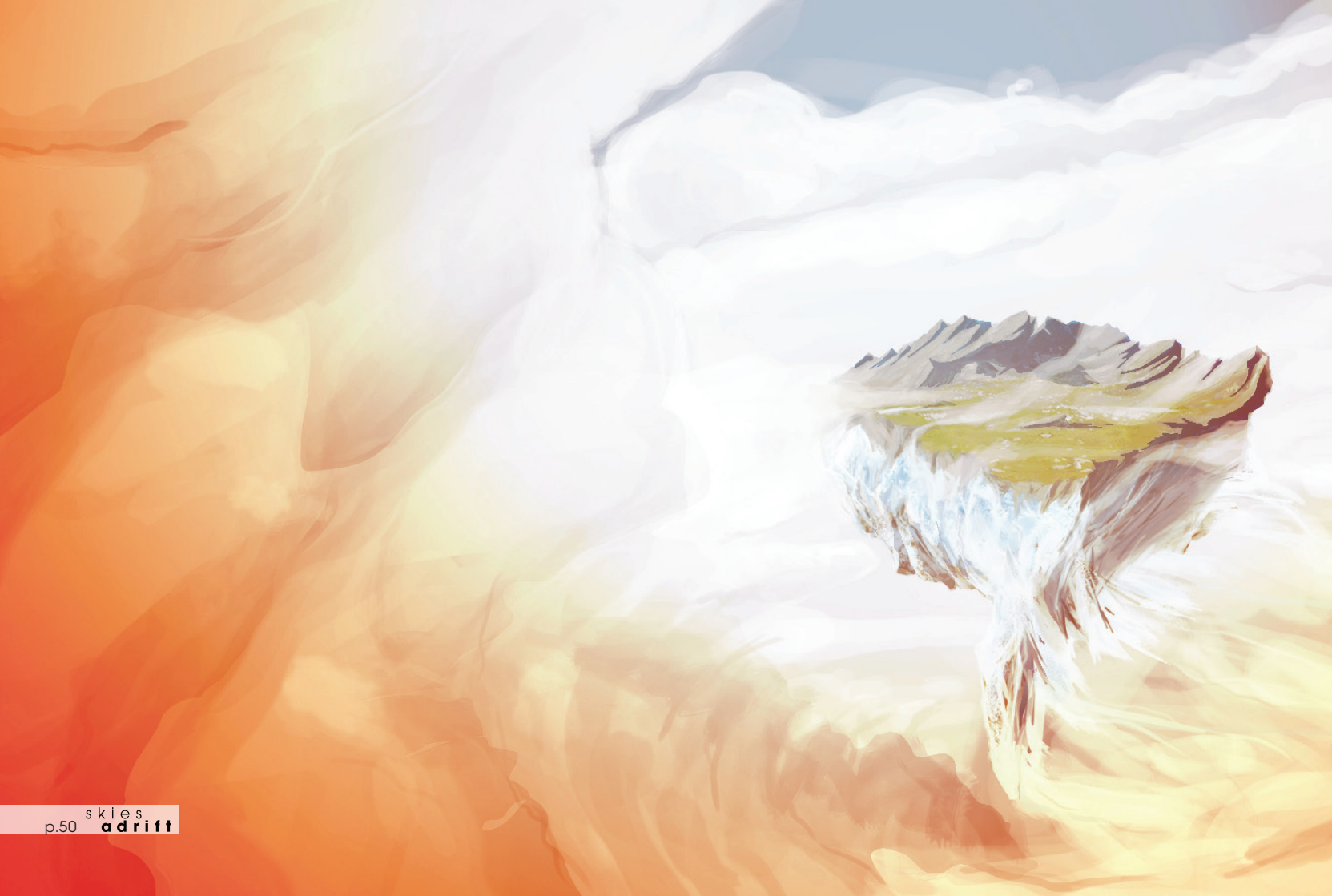
Considering the themes we address, the sublime and the confrontation of the man with the nature and the elements, several of our inspirations are romantic painters.

William Turner inspired us the powerful lighting and the hazy, forever in motion universe.

Caspar David Friedrich's work on the nebelmeer and on several sunset settings matched the evocation of a certain melancholy linked to the idea of a long journey, an odyssey.

For mor recent inspirations, we will look at the game Journey, by Thatgamecompany, which marked us by his exquisite work on visuals, especially on colors. They managed to create different strong moods, accompanying the player and his emotionnal implication throughout the game.

Fumito Ueda's Shadow of the Colossus was also an inevitable inspiration as we worked on a character confronted the a gigantic and disproportionate universe.



art direction

representing the universe

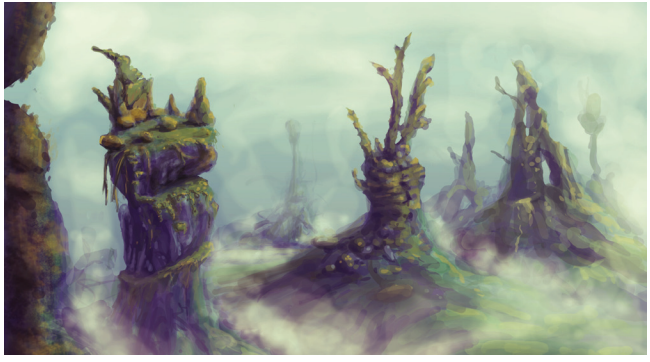
Our goal is to create an exotic and coherent environment, built around the idea of the ocean of clouds. Climate will be close to what we can find in high altitude mountains: globally cold, humid and subject to powerful winds.

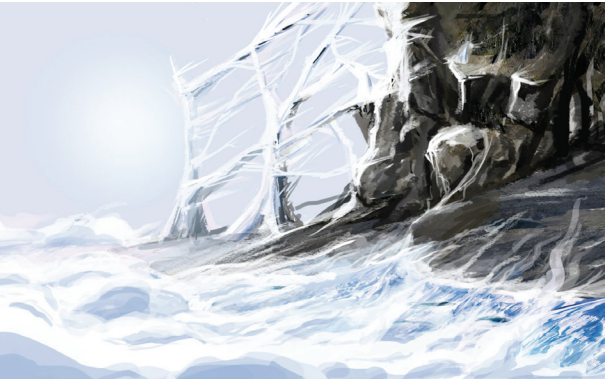
lighting

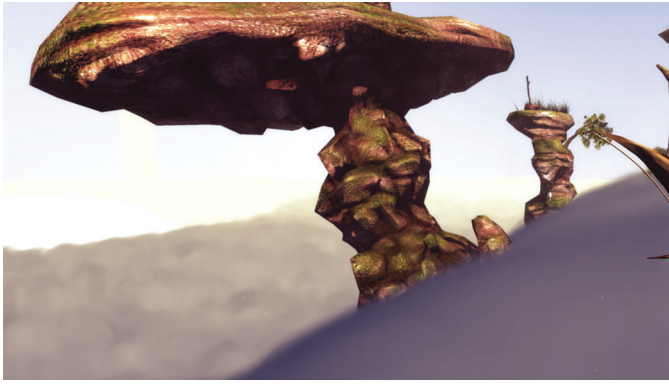
Light will we responsible in a large part of Skies Adrift visual identity, and we put a lot of work into its design.

By daylight, we wanted to have an extremely bright ambiance, with a sun dazzling the character and burning the surface of the clouds. The sea of clouds, stretching to the horizon, fuses into white light. This day lighting is very powerful and the sun rays give the light a divine feeling. At sunset, an orange and hazy hue saturates the landscape in order to mark the transition between day and night. The night sky transforms the atmosphere of the game with cold and dark tones, fluffy clouds and soft moonlight contrasting with the powerful daylight. A second sun, weak and purple, also lights the night, contributing to the idea of a world that is not ours. Animals like luminescent jellyfishes give life to the night. Dawn is quite similar to sunset. Orange and purple tones will be present to give the player a magical moment to live after the night.

In order to give credibilty to our universe, we used some realistic visual effects such as volumetric lights, glows, sunshaft, lens flare... Lots of elements, such as the sail or some animals or plants, are translucent, never hiding the sun even if they are between the camera and it. This is meant to be a visual reward for the player.





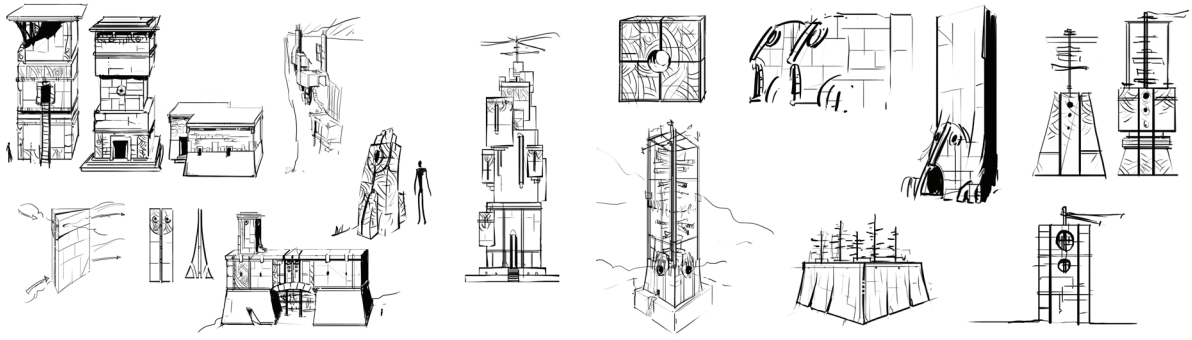


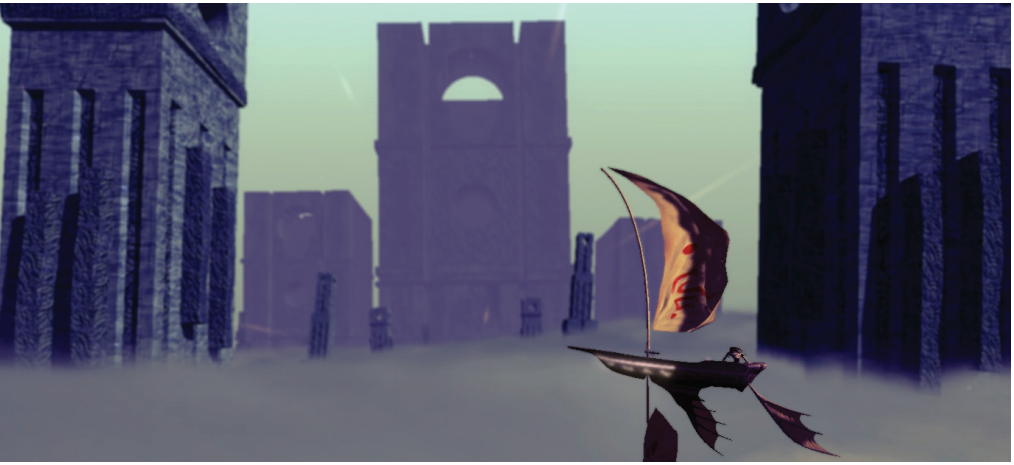
art direction

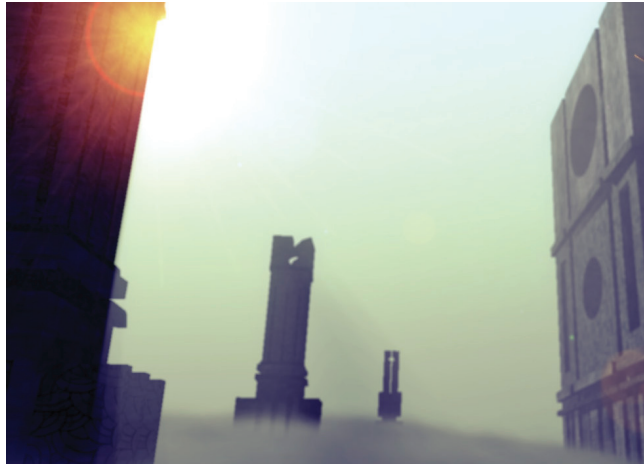
islands

In our game, the character never leaves the ship. The islands are therefore meant to be explored by the player without any frustration due to not being able to walk on solid ground. They are structured as archipelagos of little but high vertical elements between whom the player will navigate. Larger islands must rise high enough above the clouds to present the player a deterring rock cliff with a clearly inaccessible top.

Rocks are close to limestone or schist cliffs. Depending on the region of the world, the rocks can be sharp (dry or extremely cold lands) or smooth (tropical lands). Due to the wet atmosphere, we will find moss and grass on some surfaces. This atmosphere will also cause the rocks to be shiny. Islands can bear rock monoliths, buildings made by the ancients or the natives and bigger vegetation.
This vegetation has developed from place to place thanks to the wind. It is the main factor in the sediment's transport and pollination. In this universe, vegetation always finds a way to develop itself. Plants and trees have developed vigorous climbing roots and branches to grow vertically and resist to the wind. There are also floating roots or flowers that look like like nets, filtering the clouds.







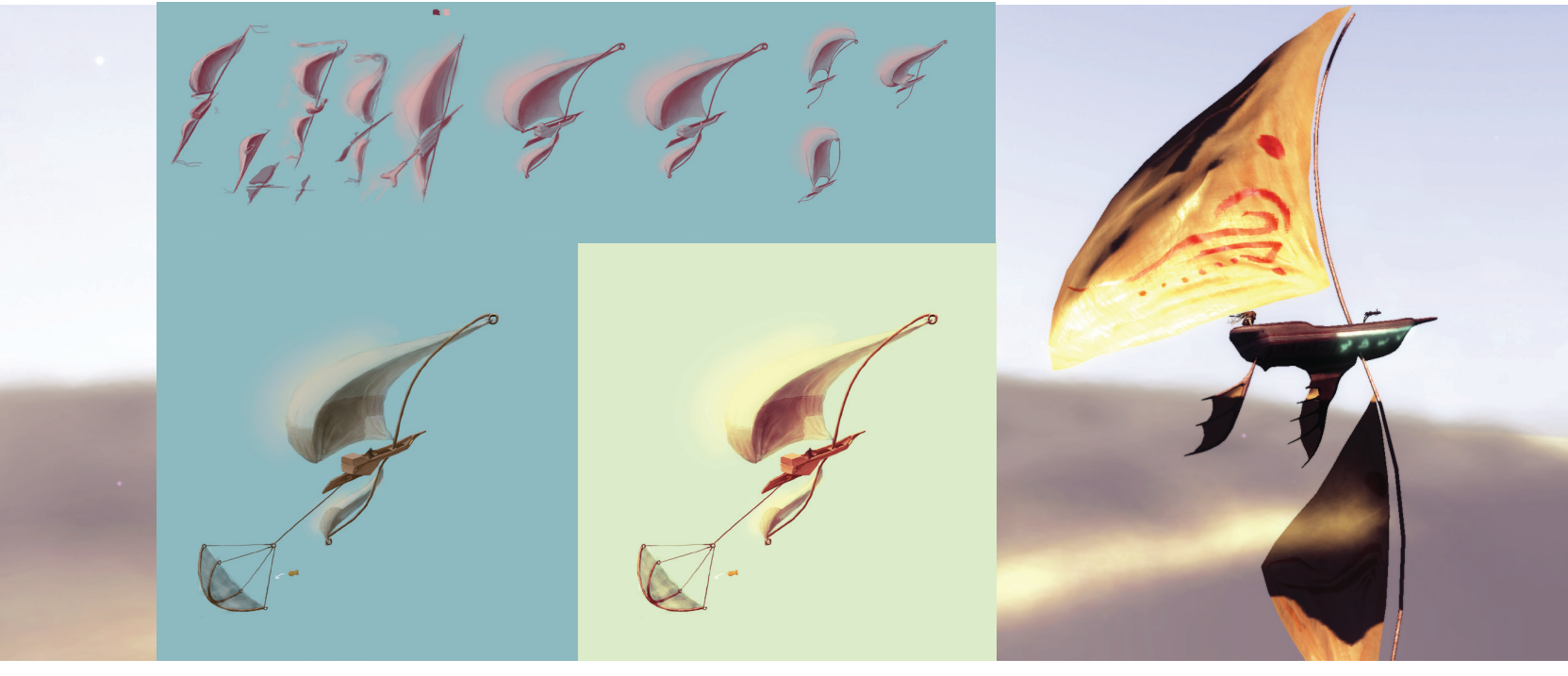
art direction

the Ancients

The player will often encounter in the sea of clouds the remains of the Ancient's civilization. They evoke the concept of a probably glorious past, half historical half mythological. Waban's kind have inherited some elements of this old culture. However, as they are mainly concerned by their short time survival, they do not have a great knowledge about the ancients culture and their technology. But they share some visible elements such as symbols in their language. We will find different types of buildings, towers, aqueducts, flying structures… Each engine will be designed as a unique piece with a particular visual treatment: storm tower, buried city, maze… An important thing in the architecture of the groups of buildings is the notion of passage: the wind will always have a path trough the buildings, and so does the player.

These ruins are mostly gigantic, sharp edged, geometric monolithic structures. They are made of polished carved stone and are mostly well preserved. A recurrent pattern in the architecture and the decoration is the idea of the circle, the curve, trapped into a square or a grid. It suggests a civilization that managed to master the wind and the power of the clouds and to use it as a ressource. The buildings are also shelters to protect the people who built them from the outside. The larger ruins will have to give the player the same solemn feeling he would have facing a monumental cathedral.

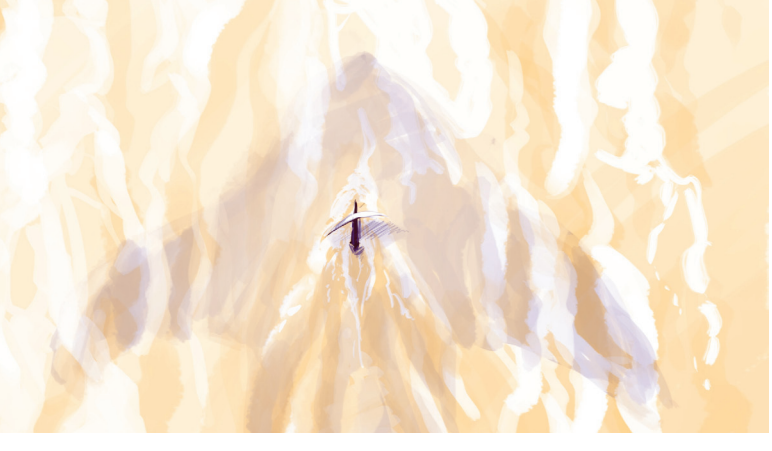
In the ancient's building, the player will find sculptural reliefs and frescoes that will give him keys to understand what is the use of the engines, who were the ancients and what is their history.



art direction

the ship

The ship is the vehicle and the shelter of the character. Essentially, it's a sail, cutting through clouds. He can surf on clouds and glide over them by taking the wind. It is build with natural materials, such as wood, ropes, bones, fabric... Its design is simple and elegant, light without being fragile. The character and the ship will be animated in order to make the player feel the wind and the agitation of the elements: ribbons in the wind, perpetual agitation of the fabric.
This ship is not a simple boat, but an antique machine feeding with blue wind.Different upgrades are possible if the player collects enough of this rare resource. At his maximum, the ship will get a superior main sail, an additional little sail on the bottom, a rotative mast which will grant a better balance, a rudder and a daggerboard with sails, and a hook. The superior upgrades will add decorative pieces to the original, rougher design of the pieces. There is a gauge on the sides of the hull which will inform the player of the quantity of blue wind he managed to harvest. It is a ribbon of symbols all around the hull divided in eight steps. As long as the gauge is empty, the symbols of the gauge are only paint on the wood. But when the player gets blue wind, the symbols start glowing. When the eight sections of the gauge are filled, the glow begins to flash in order to inform the player that he has enough blue wind to get an uprgade.



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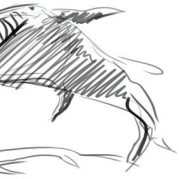
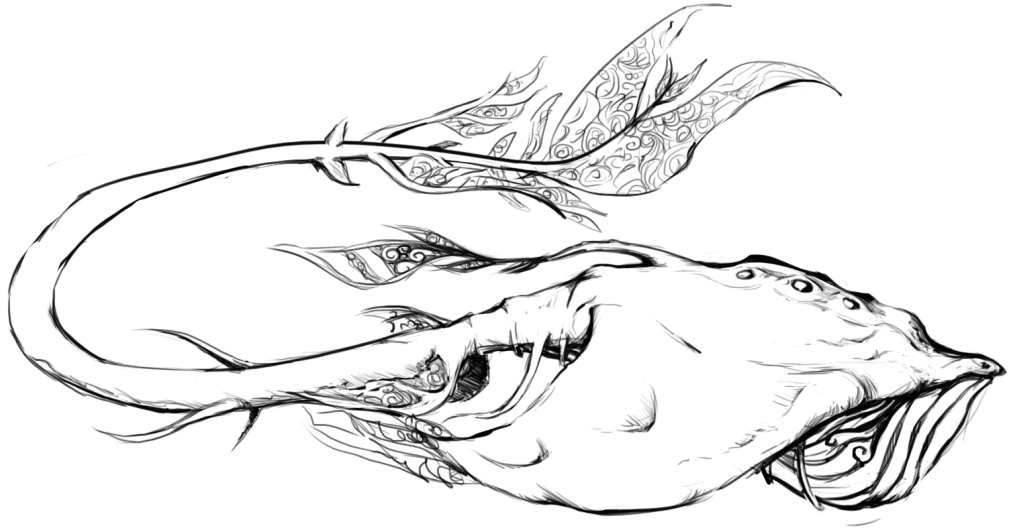


fauna

The sea of clouds is inhabited by all kinds of animals and plants used to resist to the harsh conditions of life up there.
This goes from little mammals like flying squirrels to gigantic whales filtering the air in order to feed, great medusas drifting and all sorts of birds and insects.



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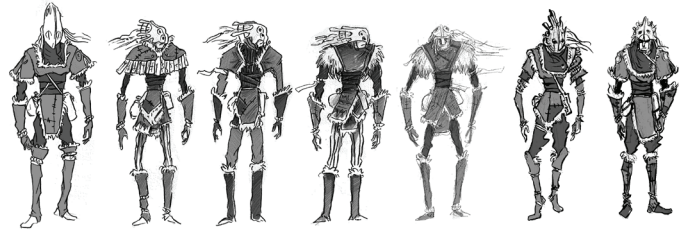

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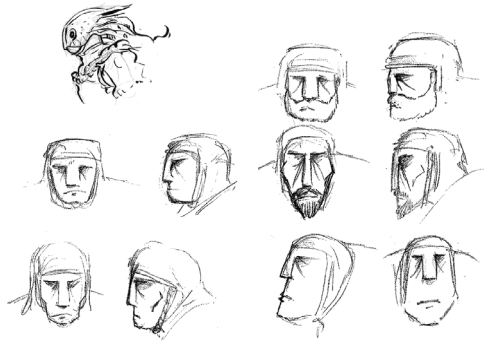
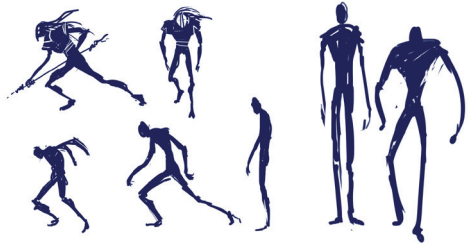


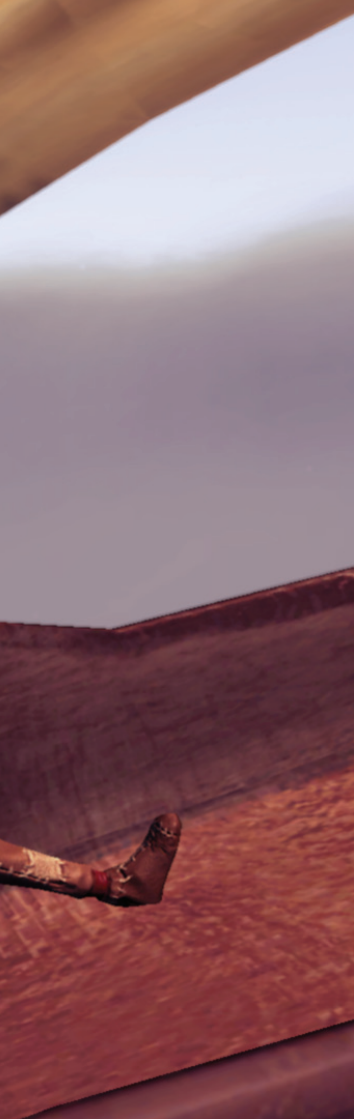


the character - Waban

For the main character and his kind, we drew our inspiration from people living in the great north or in deserts (like inuit) and who are used to live under rude and extreme conditions. The character is a fisherman, used to sail across the sea of clouds.

The character has to be a small mass constrasting with the immense and bright universe. Waban's muscular structure is adapted to the light gravity of the world above the clouds: he has a tall and thin silhouette. He also comes from a people living like predators. Head down in his robust and large shoulders, he seems always ready to jump on a prey.
He is wearing a mask, which allows him to detect the blue wind and carrying a symbolic meaning.
This mask is a key element of his identification. He can wear it or not, if he doesn't, the mask will play the role of a helmet on the top of his head.
In order to protect himself from the cold, he is mostly wearing leather clothing. His boots and gloves are roughly patched. He is well covered, letting only his face in the open air.

His face is marked by years of sailing under wind and bad weather. He his badly shaved and is often frowning. Waban is not a precious character, he is rough and tough. He is an adventurer with a thirst of discovery.



art direction

The character will always be at the helm of the ship, constantly moving to activate the different mecanisms (rudder, sail, hook, winch…). He will also accompany the roll and shift of the ship, the collisions with the objects on the sea...

art direction

communication and interface

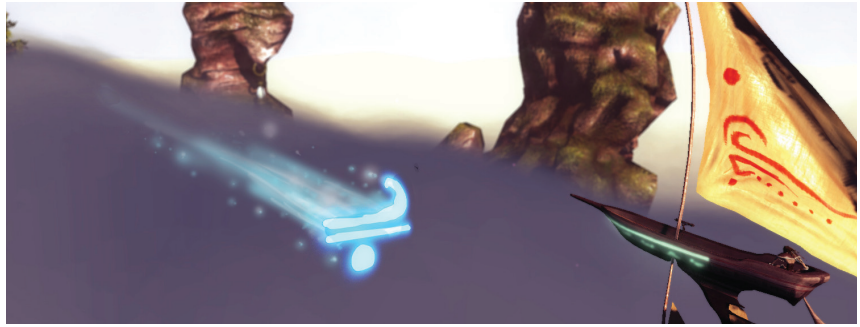
As Skies Adrift needs emptiness and air to immerse the player into the sea of clouds, we naturally chose to make the interface as seamless as possible. The natural affordances of the environements are also a key point in order to make the player curious and to explicit the goals and challenges he is and will be confronted to.

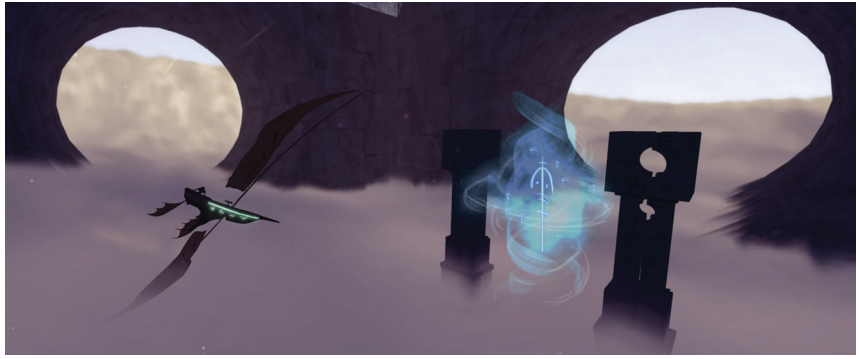
feeling the speed

The first challenge was to make the player understand the position and the movements of the ship he controls into this hazy universe. We used an accumulation of different feedbacks to give the player information on his position and speed. Shadows under the ship indicate the distance to the surface of the clouds. Different types of trails and particle effects informs the player of his current speed: the quicker the ship, the bigger the trails. We also added variations on the surface of the clouds near the ship, allowing a better feeling of the speed. Some elements such as rocks, pillars, clouds of particles and other environment props are also here to give the player reference points.

feeling the wind

Another important element was to inform the player of the direction of the wind. The main tool the player has is the wind rose, accessible by a simple input on a button. It takes the form of an arrow made of wind, appearing near the ship and pointing into the wind's direction. We also added trails of wind generated randomly around the ship, and some animals who have the habit of always flying following the wind (squirrels or derivating jellyfishes).





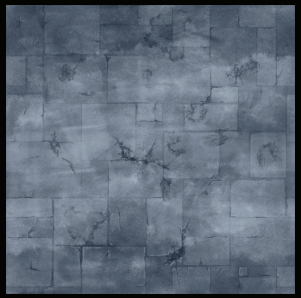
art direction

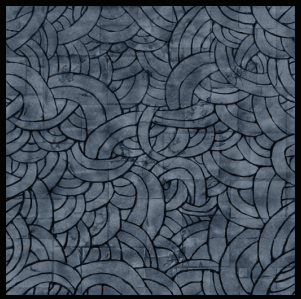
blue wind

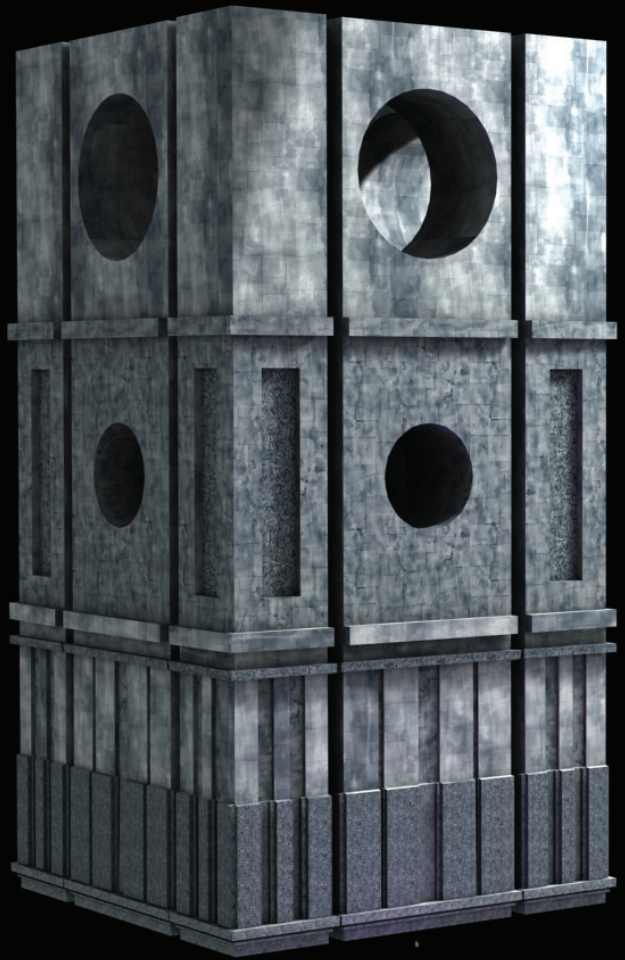
The Blue Wind is designed to be visible at any time of the day. The gauge of harvested blue wind is integrated to the design of the ship's hull. The gauge will flash when filled to inform the player of the possibility of an upgrade.

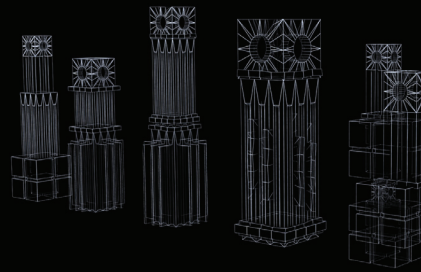
around the game

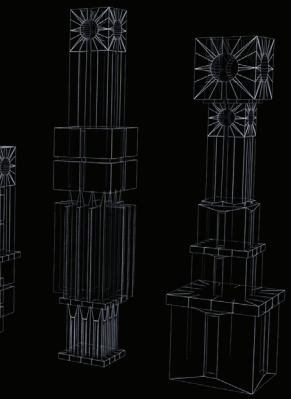
For the communication around the game (including documentation, trailers...) we wanted to stay as simple as possible, following the principle "less is more", and letting the game talk by itself. The aim was to always give the feeling of a bright, pure, vaporous and oniric universe. We use white or light colors, simple and aerial typography.











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technical issues and solutions

techniques and softwares

2D art was both hand drawn and did on photoshop. For the 3D work, we used 3Dsmax for modelling and animation, Zbrush for sculpting and texturing. We also mixed hand drawn material, photography and watercolor work in the texturing process.

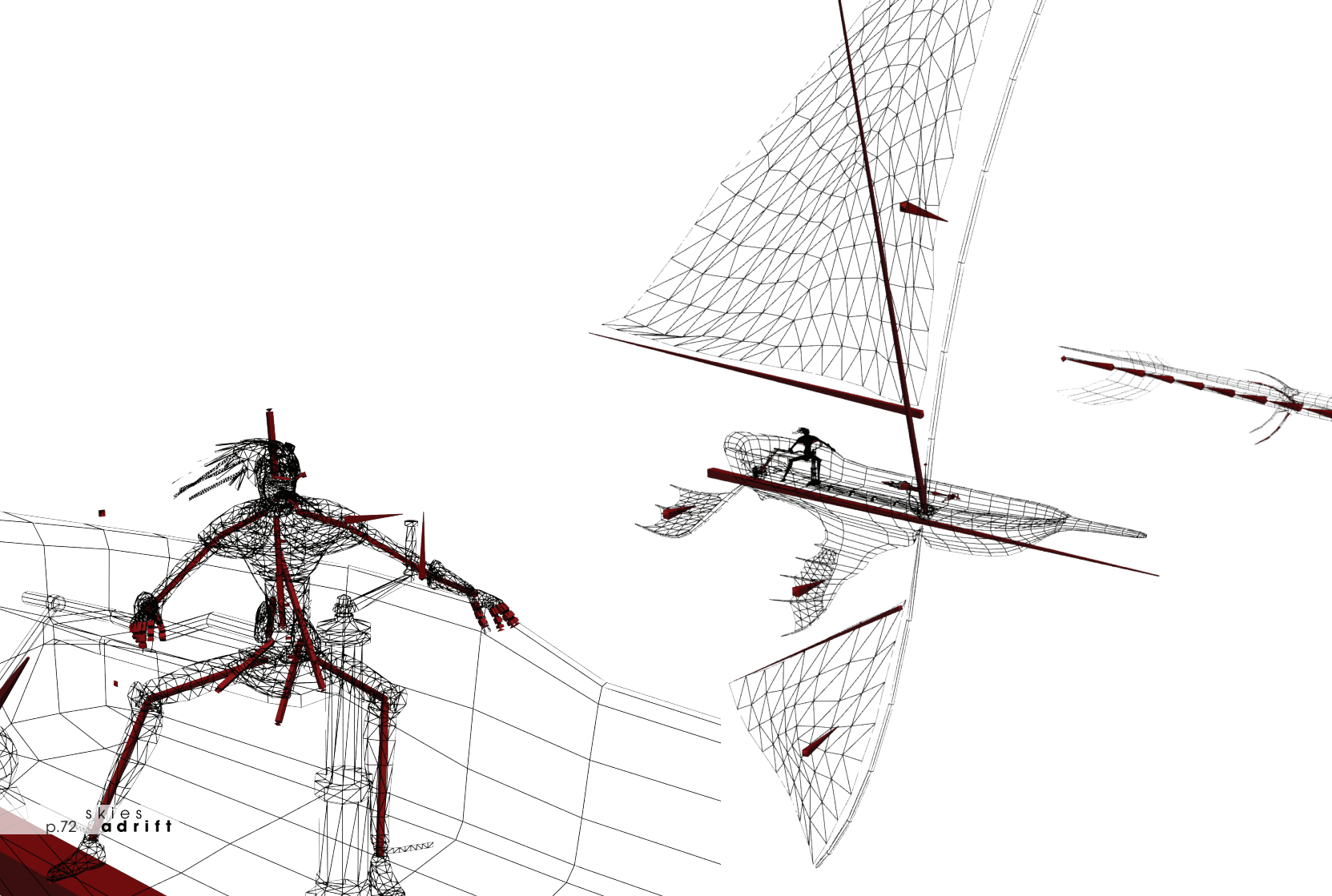
texturing gigantic objects

One of the main characteristics of the game's universe is to confront the player to gigantic elements. But the size of the objects, added to the monolithic structure of some buildings, was a problem considering the texturing: a simple tiled textured would be great from a close point of view but would be repetitive from a distant point of view, and a unique texture would be great from a far distance but would need a huge resolution to be nice from a close position.

In order to resolve this problem, we complexified the accessible parts of the bigger elements, adding ruptures and variations. Then, we densified the maps around this accessible parts. With a combination of different scales of textures, we were able to make objects that look great from a distance, with more details on the parts the player would be susceptible to look closer.

animating the universe

The project was demanding in terms of animations: it is a moving universe, with diverse objects with diverse technical structures which needed to move. The character, the ship, the clouds, the animals, the plants… The global motion and speed of the game was also a challenging point, because everything had to make the player feel the huge size of the universe.



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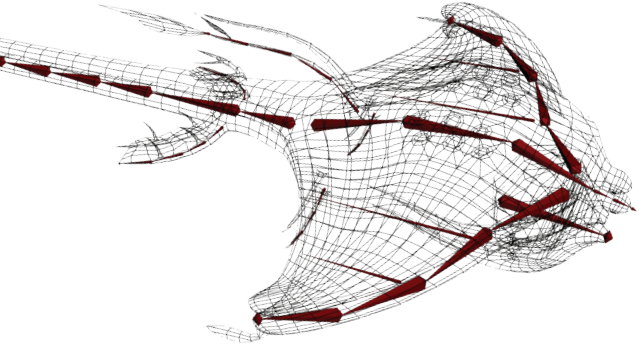


The character had to be constantly moving and to give a feeling of constant awareness, which decided us to use a mix of motion capture and traditional animation. The motion capture gave us lots of details and subtle movements, pushing forward the feeling of a living character subdued to the elements. The traditional 3D animation gave us the precision and the exaggeration we needed to fit perfectly with what we wanted to tell to the player.

The whale uses a mix of procedural and traditional animation. The main problem was to have a correct behaviour of the tail that could follow the different decisions the IA of the whale could take in terms of directions, without needing too much hand work on animation. We decided to animate the tail with an algorithm that would follow the movements of the body. The body itself would be traditionally animated.

Floating plants and jellyfishes also use a different structure, reacting to the wind direction and strength.

The animation of the sails must depend on the direction of the wind. They must be oriented perpendicularly to it in order to be fully inflated. We had to define different key frames of the boat's animation to give them to programmers who blent them together. Sails are opened or closed, inflated or not, in the front or in both sides.

sound design

sound conception

Skies Adrift is set in a vast cloudy universe in which the wind endlessly blows. The player is always surfing on the clouds with his boat, he will have to discover the mysteries hidden in this huge world by exploring old ruins, caves or rocky canyons. This description is what will rule the decisions taken for the sound design and the music of the game as well as the technical choices.

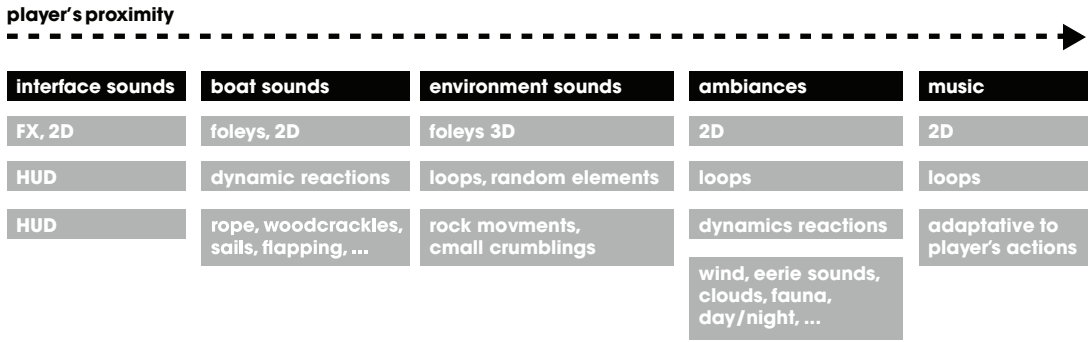
sound design

intentions

The sound and musical intentions of Skies Adrift are based on 3 wishes that we wanted to put in the game. These 3 points aim to justify the main sound design and musical composition choices that were taken during the development. They include the artistic, technical and ergonomic dimensions of the soundtrack :

The first point is about the sound ambiance we wanted for the game. Early in the conception, the team first wanted an immersion by the sound because the universe of Skies Adrift is one of the strong points of the game.To immerge the player, the ambiances are adapted to the environments that surround him. Large stretches of cloudy reliefs, heaps of flotting islets, mazes of ruins containing ancient technologies or rocky canyons hollowed by the time, these environments are also sound ambiances to create in order to reinforce the immersion in the universe of Skies Adrift. The fauna that inhabitate it is also a piece of the sound landscape. The different animals present in this cloud's sea contribute to the universe and must also take life by the sound. All these elements are illustratives they do not give any feedbacks to the player neither do they enhance the gameplay, they are just here to adorn the game.

The second point is about the wish we had to put the sound and musical elements that are importants for some of the feelings and feedbacks that the player will experience within the game. These sounds will allow us to indicate an important information or to accompany some of the player's actions. The sounds associated with the boat's movments illustrate clearly this case, especially the wind sounds that we can hear permanently. They inform on the boat's speed in addition to a sensation of adrenaline when the player reach the maximum speed. To give another exemple we can also tell about the musical map sounds. These sounds are an


player's proximity
interface sounds
boat sounds
environment sounds
ambiances
music
FX, 2D
foleys, 2D
foleys 3D
2D
2D
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dynamic reactions
loops, random elements
loops
loops
HUD
rope, woodcrackles, sails, flapping, ...
rock movments, cmall crumblings
dynamics reactions
adaptative to player's actions
wind, eerie sounds, clouds, fauna, day/night, ...

important feedback for the player because they help him to know where to head for. The adaptative music is also one of these elements, it will accompany the player's actions.

The third and last wish is about the gobal coherence of the soundtrack. To make every sound audible in relation to the others is one of the main challenge in Skies Adrift. First because the sound landscape include a lot of wind sounds, so they must be created in order to be audible when played together otherwise the player could not understand the location of some sounds. And secondly because the sound textures of the wind are also present in some of the sounds that are important for the player's feedback like for exemple the wiind rose that allow to know the direction in which the wind blow. Yet to be able to locate a feedback sound is really important for the player, so we must be able to recognize an illustrative sound from a feedback sound.

sound design

description of the sound groups

To have a better global vision of the soundtrack we separate the different sounds that compose it in several categories that are described below :

the music

The musical intentions for this project are an accompanying of the player's action. We wanted an adaptative music to reflect the 2 differents phases of the game : exploration and adventure. The music was thought to be calm during the exploration phases and more cadenced to accompany the navigation challenges the player encounter. We gathered a lot of references from films others video games and live performances to finally focus on a style mixing instruments from irish music and amerindian music. Irish bouzouki, harp and cello are the instruments used to create the melody and the rythmic score is played by a set of a varied set of drums from different countries.

the ambiances

The sound ambiances are the basis on which we put the foleys and interface sounds. The role of ambiances in the game is to participate in the player's immersion. They must fit the environments they adorn in order to give to the player the sensation that he really is in the place he is exploring. The main reference that inspired the ambiances of Skies Adrift is Journey, we found that the universe and the sound landscape were similar even if the environments differ. In the ambiances we can hear for exemple the sound of the cloud's sea which give the sensation that the clouds are in movment like the waves on the ocean. Some fragments which are coming off from their wall are audible in the ruins or islets areas, some animals hidden in small cavities or others more massives who wander in this cloudy universe come to break the monotony of the constant blowing wind.

sound design

the foleys

In Skies Adrift the foleys are especially linked to the boat's movments. The intentions for those sounds are to reinforce the sensation of control on the boat by giving him reactive wood crackles, tightening rope and flapping sail sounds when the player manoeuver it. These elements participate in the immersion of the player because of the interactive sounds that are added to his movments. Some others foleys are simply here to illustrate interactions like the harpoon sounds for example. There are also 3D sounds in the environment that illustrate small dynamic reactions like dust crumblings in the ruins or tree's leaves which wriggle because of the wind.

Interface sounds

All the feedback sounds on a player's action Ingame or not are in this category. The team wanted a coherence in the soundtrack in order to keep a link between all the elements of the game. That is why the interface sounds are using the same kind of textures than the wind sounds that are the most recurrents in the game. The challenge is to avoid covering the others sounds of the same kind and just the opposite, being covered.

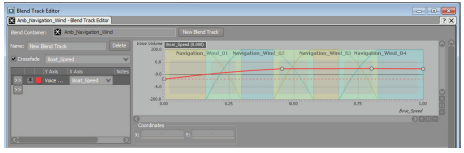
sound design

technical choices

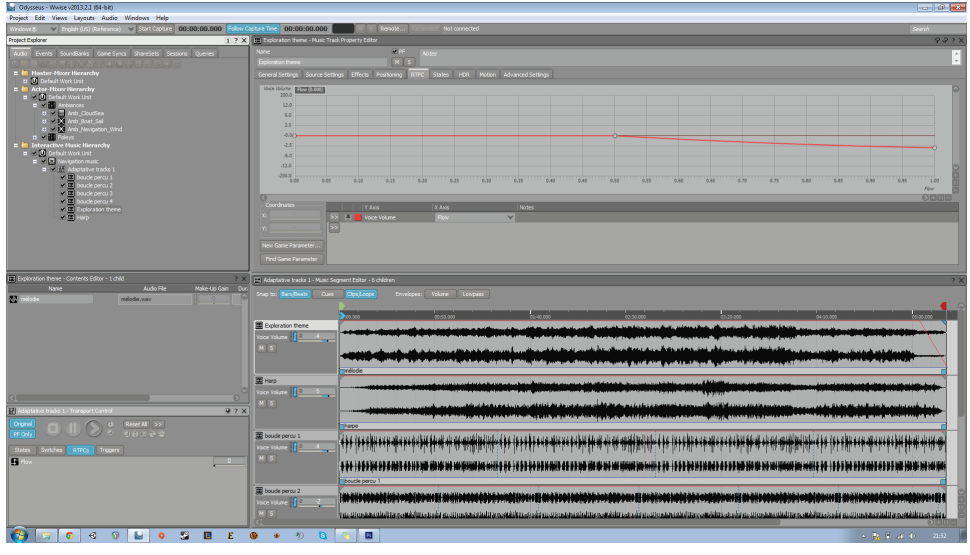
The project required some technical choices regarding the integration. We had to think about a simple way to implement the sound systems we needed that would allow us to make the work of both programmer and sound designer easier.

Technical intentions

The first question was about the ambiances that have an important part in the game, so we had to be careful to create the smaller loops possible to avoid too much data to be stored in memory at the same time as the music is already taking a lot af memory because of the adaptative system that will be describe further. The second problem was to not overload the dynamic with these ambiances because il would let less space for the others sounds. To avoid that we are using a dynamic mixing system that allow wind sounds mainly to react according to the boat's speed. At a standstill the sound of the cloud's sea will be the louder sound whereas at full speed it is the blowing wind sound.
The music was also one of the aspect that required a reflexion for the integration. We wanted adaptative music to accompany the player's actions. So the exploration phase would be calm and the adventure part more cadenced. For that the music is separated in 6 parts. The first one is the main melody. It plays at full volume when nothing really turbulent is happening. When the player begin navigation challenges the main melody decrease and the harp and drums increase progressively.
Finally we needed a way to simply choose between 2D and 3D sound in order to test audio behaviours quickly.



This is an example of RTPC curve that controls the volume of a blend track that contents 4 wind sounds in fonction of the variable that controls the boat's speed.



This is the interactive music window on Wwise. the curve is linked to the volume of the main melody which is called exploration theme. As we can see it's decreasing when the RTPC gets closer to the value 1.

sound engine

All these needs brought us to choose the sound engine Wwise. It contains all the

fonctionalities that we needed to test and implement our audio behaviours. The dynamic mixing system is controlled with RTPCs (Real Time Parameter Controls). It allows to link a variable from the game to a sound parameter like volume or low-pass for example. The adaptative music system also works with this fonction. Some others fontions are really also good ways to diversify the soundtrack like random containers for example. It is possible to do that without Wwise but it is a gain of time for the programmer as he will not has to code all these systems.

pro
gram
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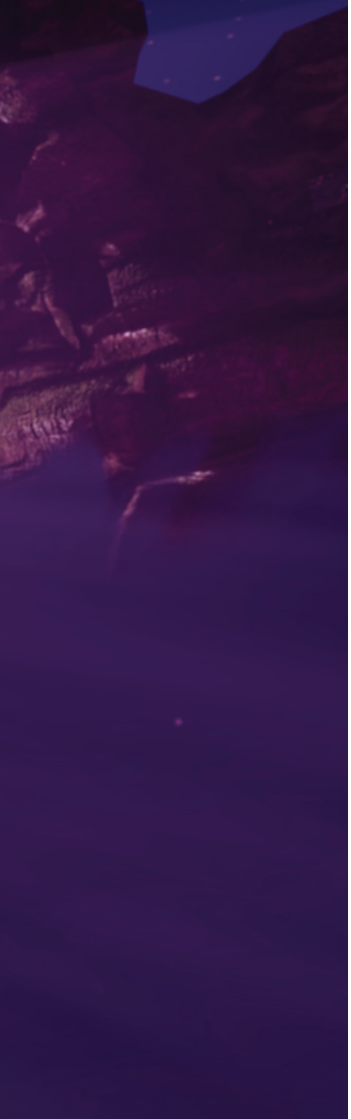
program-ming

In this part we will deal with everything that is related to the technical part of the game. You will find the solutions and hacks we used in order to achieve the differents challenges we faced while developping the game. We also talk about the tools we had to build to ease the creative process.



pro
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work with Unity

engine choice

From the beginning of the project, we knew that the game would have a huge and open environment where an ocean would be omnipresent and navigable. Since this is a 6 months project, we couldn't afford to make our own engine so we chose to use an existing one to speed up the development. The two main engines that held our attention were Unity3D and the CryEngine.

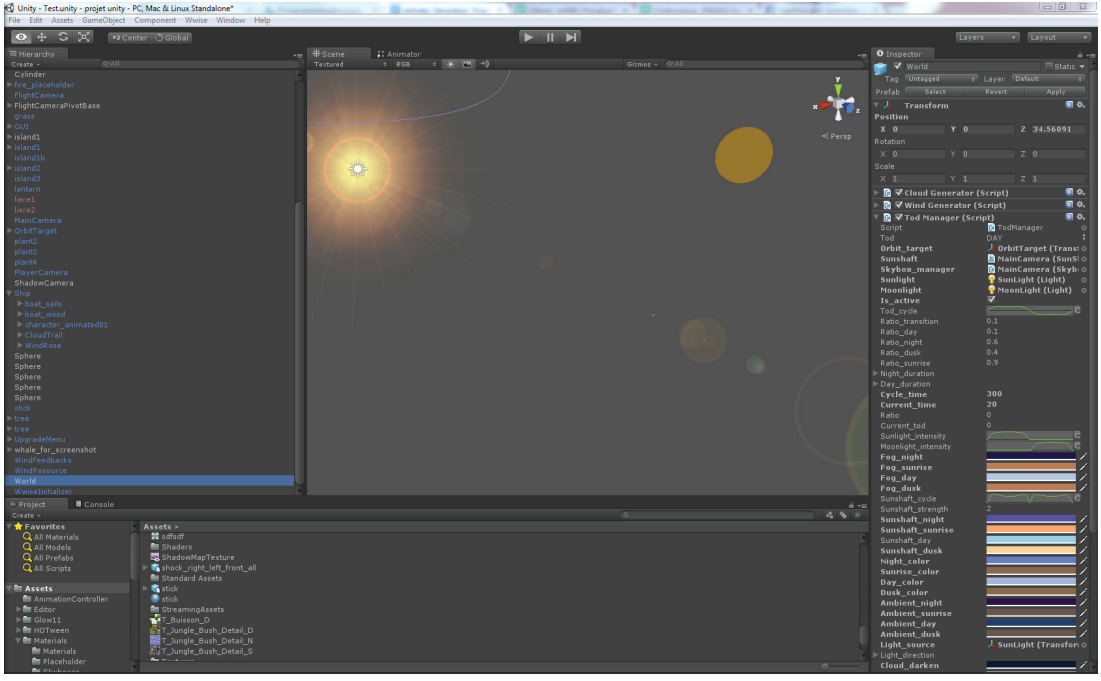
We began by testing the CryEngine for its capacity to handle the rendering of large and huge scenes. However, we didn't have the possibilities to create our own shaders and it was a requirement to create and render an ocean of clouds.

Because of its flexibility, its intuitive workflow and the huge community, Unity3D 4.2 was our final choice. Even if the render system is less complete compared to the CryEngine, it can easily be extended and the team members had already developed using it.

To allow our sound designer to add advanced sounds effects, and make the life easier, we chose Wwise as sound engine.

We used Git to keep our project versions in sync with each other and keep track of our low-level modifications.

Unity interface



pro gram ming

code architecture

Unity3D is component-oriented, so many C# classes we write are components (they inherit from MonoBehaviour). Each component fulfills a specific role. It means we use composition a lot more than inheritance, which allows us to reuse our code easily and add functionality to our GameObjects in a flexible way.

Anyway, we had to introduce a package hierarchy, separating:
-Framework classes that can be reused in any kind of game
-Classes that are specific to our game, such as scripts or controllers, present in the final game

pro
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creation of the environment

generating the cloud sea

Before starting to think about the rendering process we would use for the clouds, we had to find a way to create the basic geometry of the ocean. We chose to use heightmaps;

For each point in space, we would have an altitude value. This altitude is calculated using a perlin noise generator. This is a method often used in terrains' procedural generation.

This generator allowed us to modify differents parameters to have more control over the shape the ocean would have.

Those parameters were:
- The maximum altitude of the heightmap
- The reliefs frequency (the size of the bumps)
- The reliefs details

As we wanted the game to have differents types of environments, we had to find a way to customise the ocean in specific parts of the world. To achieve that, we used biomes.

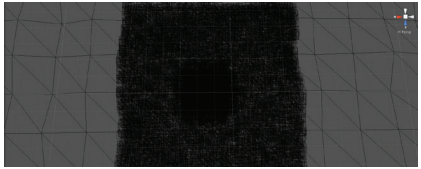
They are used to combine multiple perlin noise generators. We have a generator which is used by default in our ocean. But we can then customise its shape by positioning biomes in the space. Using a maximum and minimum influence radius, the ocean would be more or less affected by each biomes.

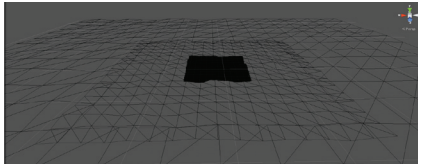
rendering the clouds

The first problem we had is the physics and the rendering of our clouds. Most of the time, video games use solid or semi-transparent surfaces. Thus, a rough separation can be seen between the air and matter, for example a plane for the water. Nowadays, graphics cards are designed to handle million of

triangles easily to display surfaces. It also make the rendering of shadows easier because each point is clearly defined by its position and normal.

When it comes to rendering a surface such as an ocean of clouds, it has to be blurred, vaporous. Moreover, objects in the scene are supposed to be able to go through this kind of surface and we have to give the player the illusion that the clouds geometry is being modified by the environment.
And at last, the clouds is constantly moving according to the wind: despite its volumetric aspect, we have to be able to animate it.





The solution we used to have this kind of render is to use particles; Each particle is a 2D sprite that is always looking at the camera (billboard) and represent a really small part of the cloud transparency surface. The number of particles required to have a decent quality impacting a lot the performance of the game, we had to use our own level of detail system. We also had to find a structure that would make the cloud theoretically infinite.

programming

shading the clouds

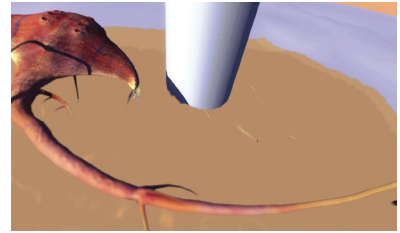
Since we use particles that follow the camera to render our clouds, we had to find a way to add shadows to make them feel like they are volumetric. This wasn't an easy task. At first, we used normal maps, calculated from the noise that defines our cloud geometry, in the fragment shader. It allowed us to have basic shading but not shadows coming from the environment.

We finally found a way to get all shadows from all objects around the player. Our solution was to use a second camera. This camera would replace the shaders of every object rendered so it would be invisible but still cast shadows on the planes generated. Then we would get the result of this camera in a blurred low resolution texture and use it in our cloud shader to shade the ocean.

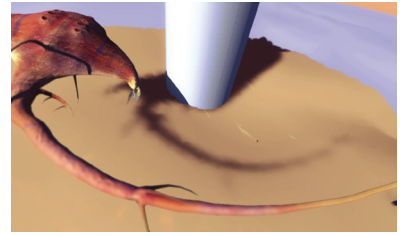
We also have another texture which is used to color our clouds. We use this texture for light. It allows us to teint the clouds for exemple for lightning when the player is near a thunderstorm.The Unity3D editor.

shadow texture

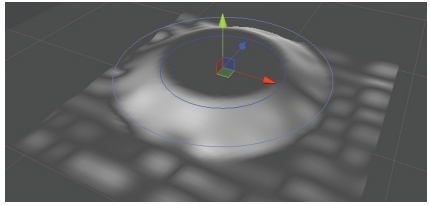
without shadow texture



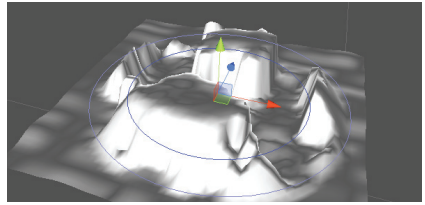
with shadow texture



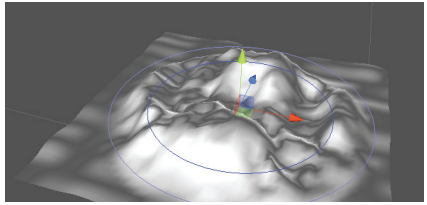
Flattening a region with a higher height



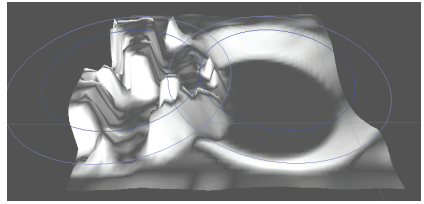
Creating sharp cliffs by modifying the height curve



Adding more relief and details



Biomes can blend seamlessly



pro gram ming

level design tools of the unity 3D editor

Unity3D has an integrated scene editor allowing level designers to place elements in the game world and modify any parameter they want. The code we write is structured as C# scripts classes attached to GameObjects, where variables declared "public" can be modified in inspectors, both during edition time or play time.

biomes

The sea of clouds is procedurally generated. However, it can be hard for the designer to obtain something special without intuitive parameters :
We implemented a biome system so the relief of the sea can be adjusted in specific places in the world. For instance, it's possible to flatten an area, raise or lower the altitude, reduce the bumpiness or increase details just by changing local parameters and height curves.
These changes are visible in the editor in real time with a prefab we made specifically to work in the edition mode of Unity3D. It shows a quick overview of what the sea of clouds will look like.

spots for the grappling hook

Grappling hook spots can be created in the editor by simply adding a script to any object we want to grab. The script takes several parameters, such as the grab type (rotative or not), and the object that will rotate if the grabbing is rotative. Then, if we want to have a hook on a big structure, grabbing that hook can rotate the structure it is attached to.

pro
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boat behavior and the whale

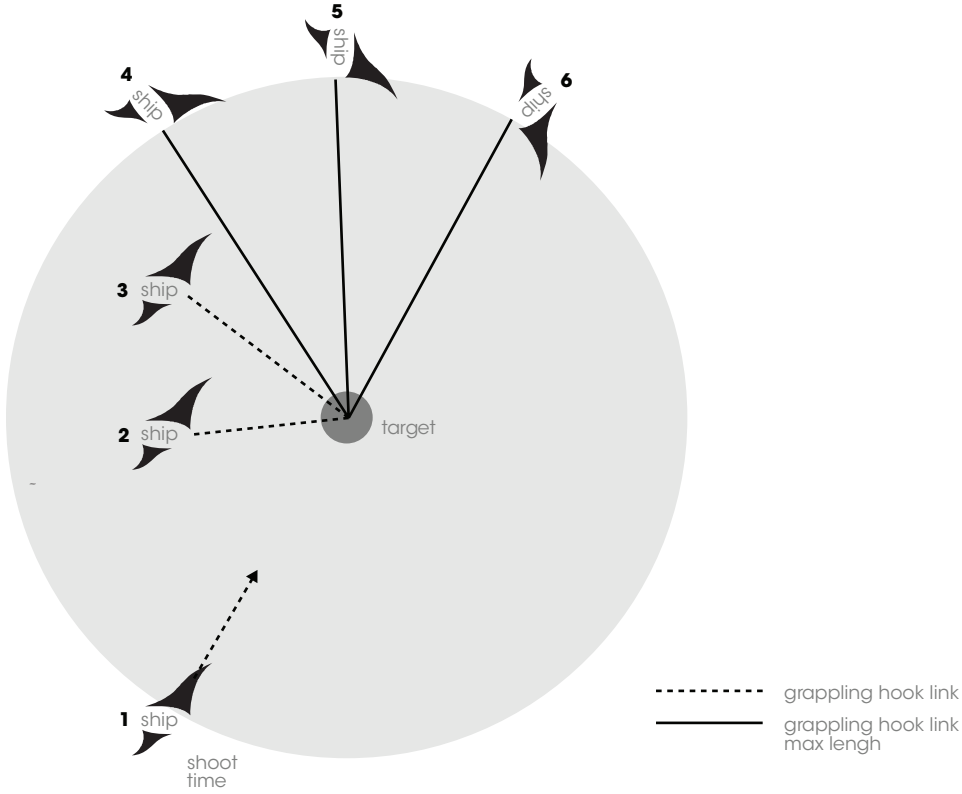
the boat mouvement

In our game, the boat has to float as if it was standing on a liquid ocean. Every moves has to be smooth and the player must feel that the movement of the boat is influenced by the wind and the collision with solid environment. In addition to this, the boat has to be able to fly and land on a non-solid surface.

We began our tests by using the physic engine integrated to Unity3D, PhysX.
However, the use of this kind of model caused difficulty to have a good control at moving the boat smoothly; In fact, as we saw previously, clouds are not solid. We couldn't implement the same system used for vehicles on a road for example. Steer the ship during turns, climbs and descents the clouds were also problematic even using a keel to simulate it.

After all these problems, we decided to code our physic for the boat from scratch. In the end it uses a simplified forces system where the altitude of the boat is calculated from raycasts on the clouds.

Even if we use particles to render the clouds in game, the ocean and the platforms are also modeled and generated using 3d invisible meshes only used for physics. However, these surfaces are composed of triangles which cause jittering while moving. To solve this issue, we calculate the average value from multiple raycasts. Since the altitude obtained is smoothed linearly, we also apply a low pass algorithm (interpolation done according to current and previous time). This way, the boat follow the curve of the cloud and orientates smoothly.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pro gram ming

the hookshot of the boat

The hook system of the boat is composed of three elements: the canon, the rope and the hook. At first, the hook is parented to the canon. The canon orientates itself on two separated axes like a robot's arm and can aim at environment objects (hook spots defined in level design).

When the player shoots, the hook is extracted from the canon to move freely until it reaches the targeted spot. Once reached, the hook is parented to the target. The rope serves as a visual feedback only and is drawn between the canon and the hook. When the player ask to unhook the target, the opposite operations will be done. When the hook is attached, the boat undergoes a constraint based on its distance from the targeted hook spot: it can't go out a circle around the target. If the target can rotate, the boat will be oriented in the tangent direction of the circle. It allows the player to achieve tight rotations. The canon can shoot only if the distance from the target is included in a defined range. The boat can be in movement while the player shoots so it can be canceled if the distance between the canon and the target is too high while the hook is still in the air.

the whale

The whale is the biggest NPC present in our game. The main behavior of the whale is to move randomly in a constrained space which is defined by a circular area. At the moment, the whale always has a target. When it reaches the target, a new one is calculated in its area. Avoid the player, or charge him, is possible by choosing wisely the target point. However, the movement of the whale being very wide and ample, she can't do tight turns. It means that she might not always avoid obstacles, then place it in a large empty area is fine. Finally, the whale can switch from one altitude to the other; She can fly over the clouds, surf on them, or go under the clouds. On request, the altitude of the whale is progressively modified according to a transition curve.

The tail of the whale is procedurally animated. We use an alternative of the CCD algorithm; Each bones follow it's parent and orientate itself in 3D while maintaining a constant interval between each other. It means that not the entire model can be animated, only the upper body can have pre-calculated animations made by our graphic artists.

pro
gram
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camera and visual effects

the camera

The game is played using a third person camera. It means that a substantial work on it was required. In fact, opposed to first person games, the camera moves in space around the character and collisions with the environment may occur. Also, the controls aren't mundane (due to the inversion of the axis, it's not an FPS) and the movements have to be smoothed for design and ergonomic reasons.

About the positioning of the camera, we have a system that allows the camera to jump from one camera to another. This allows each camera to have their own behavior and the main camera will blend with the movement of the active one.

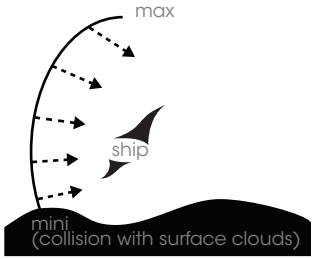
For most of our cameras, the direction of what we are looking at (the boat or the character) is taken in account in order to give more space in front of it. If the player turns the camera, it will adjust its position to keep that space.
The rotation of the boat isn't taken in account and the horizon is always kept in sight for visual comfort.

weather

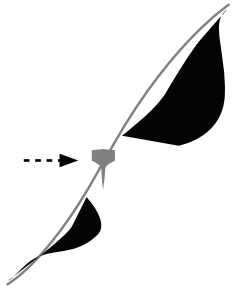
In Skies Adrift, we developed a night and day cycle to enhance the universe of the game. The ecosystem can then be modified relating to the time of the day. For example, the fauna can be different the night from the day.

To achieve what we have, numerous variables and curves are used. All of these can be modified by the artists to give the feeling they want. Among these variables, we can find the colors for the following data : ambient light, shadows, fog and sun ray. To have more control, these colors are available for the sunrise, the day, the sunset and the night. The other variables available are

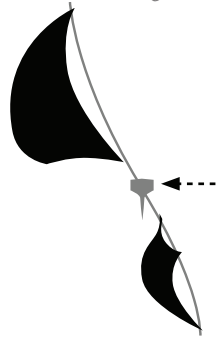
horizontal camera view



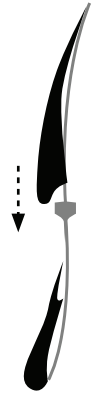
wind from the left



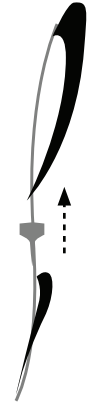
wind from the right



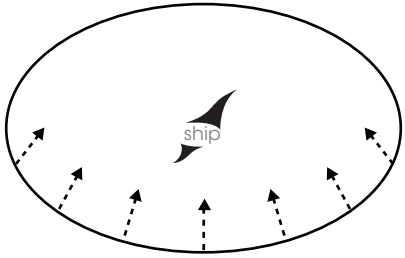
wind from the top



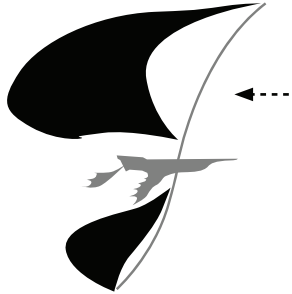
wind from the bottom



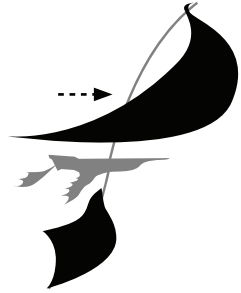
vertical camera view



wind from the front



wind from the back



pro gram ming

dedicated to the time of the cycle. Thus, the duration of a night and day cycle can differ. This allows us to have dynamic length for the night and day .

wind system

Our game would have different type of areas, that's why we had to be able to customise the wind applied in those zones. To have a realistic feeling, the wind had to affects the environment such as clouds, the movement of the boat etc... To achieve this, we developed a system that allows level designer to had colliders that would affects any object that collides with it.

sails animation

For the boat, it was required to have convincing sails. In fact, this element is really important as it gives the player a feedback about the direction of the wind. To achieve this result, we decided to use a system of blending of animations.

We asked our artists to make an animation for the following main direction of the wind : from front, from the back, from left, from right, from above and from bellow.

Using Mecanim, the animation system integrated to Unity3D, we defined three variables allowing us to blends two animations. The first serves as blending the animation of the left and right, the second the front and back animations and the last for the above and below animations. These variables range from -1 to 1 and when the value is equal to 0, none of the animation affect the sail.
We now had this system working, we only had to send the right values to Mecanim. We used the values from the dot products (dot product range range -1 to 1) between the wind direction vector from the mast of the boat, and its local directional vectors.

Once we had the basic shape of our sails, we had to find a way to represent the wind on the sail itself (as it is seen on tissues). That is to say, add ripples on it with different amplitude and speed. To do that, we simply used a combination of sinusoid on the vertices of the sail model.

busi
ness

business

Skies Adrift is a special game with a particular universe. In this part, we will answer to three simple questions :

How to sell this game ?
Or the Buisness model's description.

How to plan the production of the game ?
Or the planning's explaination.

How to finance this game ?
Or the budget's calculation.

busi
ness

business model

Skies Adrift is a game with his own identity dedicated to a precise kind of player.

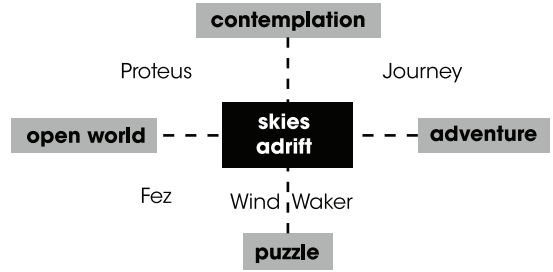
It's is game for PC, Xbox One and PS4 which intend to mix the discovery of a mysterious universe and the pleasure to solve the puzzles let by an ancestral civilisation.

competitive landscape

Skies Adrift is a game half way between exploration and adventure. The player explores this huge universe looking for the Ancients' engines able to open the skygate.

Considering four axis to identify Skies Adrift, here is four games particularly representative of each of these axis.

We can note that the two games most similar to Skies Adrift has been launched respectively two years ago and last year. Nintendo sold one million units of *The legend of Zelda : Wind Waker HD* (adventure game) and «That game company» has succeeded to make *Journey* (exploration and contemplation game) a profitable project by selling 700000 units at least.



target

The audience of Skies Adrift is large but the game is not intended to a general audience. Indeed, there are some elements of this game to consider in order to explain why it is dedicated to a more precise audience.
The pleasure of the navigation offer quickly good feelings and should be enjoyed by Journey's players. The depth of the universe, the multiple navigation challenges and the Ancients' puzzles should please to the curious gamers who enjoyed to understand all secrets of a universe.

Skies Adrift is a game made for people enjoying discovery of a huge mysterious world and looking for good balance between challenge and contemplation.

offer's composition

In order to make this project something profitable, we intend to propose a complete commercial offer which go beyond a simple standalone game.

The objective of this offer's composition is to extend the interest of the public for the game beyond his launch. Each of the elements which compose it have a positive impact on this interest.
By example, for a classic commercial offer, the interest of the public for the game increase in uphill of the launch due to the commercial actions then it decrease naturally with the sales.

launch

Each of the elements which compose the Skies Adrift commercial offer impact positively this interest.

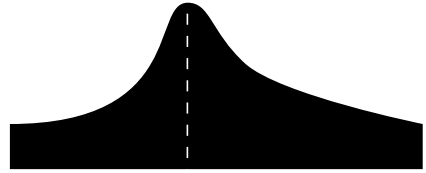
Skies Adrift is game for PC / xBox One / PS4 distributed by digital way (Steam, XBLA, SEN).
Our intention is to create a dynamic around the launch of the game in order to have quickly a strong «players community».
Our commercial offer is composed by some simple elements.

a base game

Each player will need about 6 or 7 hours to complete the adventure. But more time is necessary to understand all the secrets and reveal all the improvements of the ship

monthly free content

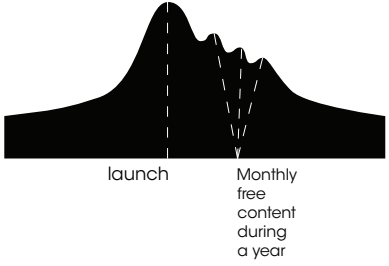
Once a month, our team will provide free additional content to the players. New skins for the ship, news regions, more background universe or unknowns animals will invite the player to play again the game.
The aim of this monthly free content it also to create sympathy from the players for our studio. Indeed, beyond the qualities and economics aspects, DLC encounter more easily success if they are proposed by a studio appreciated by players.
In this way, we retain our audience in order to incite them more easily to buy the Skies Adrift's DLC.



busi ness

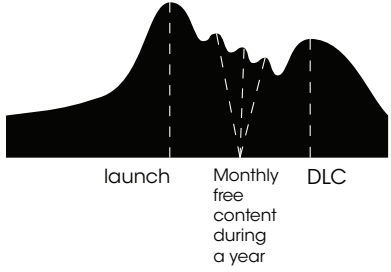
high quality DLC

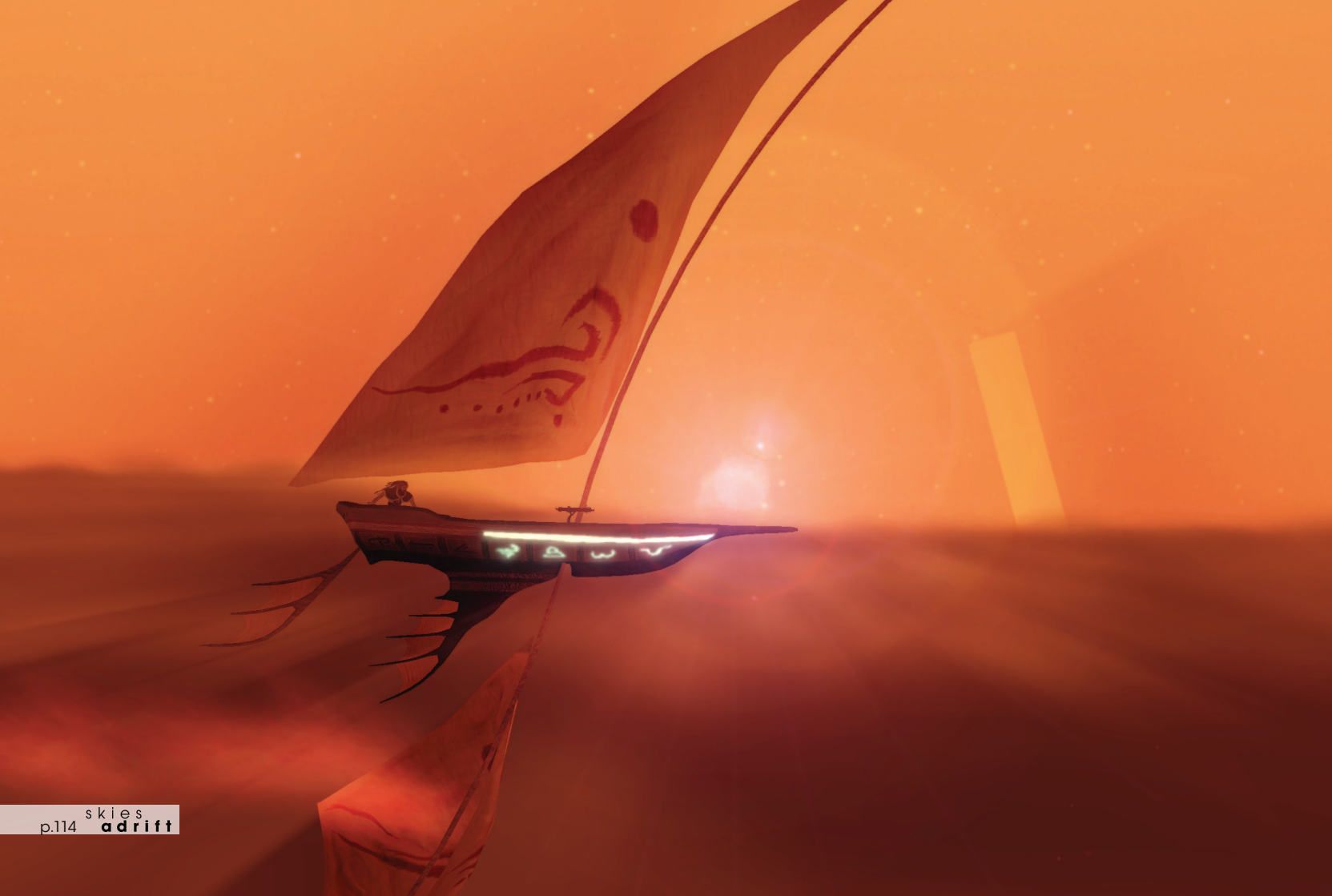
Our DLC has been designed to extend the player experience in the game. Make a successful DLC is, of course, a question of quality and selling price. But there is also an aspect considered badly by most of studios around the world. Because of years of abuse, DLC was became hated by lot of players which believed that studio cut a part from the original to propose it later in a dlc in order to create more profits.
We can observe some acclaimed DLC launched by Bethesdha for *Skyrim*, Rockstar for *Red dead redemption* and Naughty Dog for *The last of us*, offer an effective addition for the player experience.

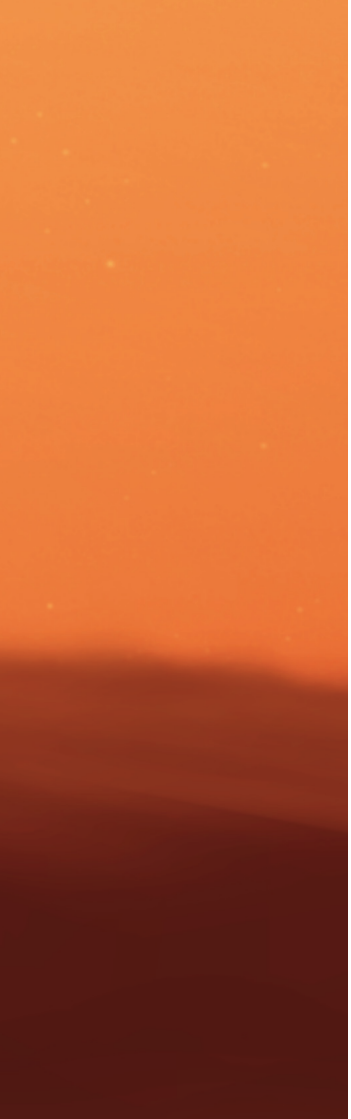


companion app

The last component of the commercial offer is a companion app. It's a mobile application for smartphone or tablet. This app allow the community of the game to share about the universe of the game. The objective of the community is to unravel the secrets of the ancients' civilisation. Together they collect informations by exploring the game and they share in order to understand what they found. When they succeed to unravel the secrets, they unlock content for the entire game. This allows to create another major event after the launch of the game. The companion app create a social dynamic around the game.







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production planning

schedule

The objective is to launch the game at the beginning of July 2015.
This date has many advantages.

His position between the end of the E3 and the traditional summer sales allow us to sell many games at full-price (help by the buzz of the communication during the E3). With the summer sales, the number of player should grow up quickly.

All the challenge will be to fidelize all these players, to keep them playing the game for they continue to speak about it. This community will help the game to reach it sales objectives.

It's in order to deliver the gold version of the game at the beginning of July 2015 that we organize the production's planning.

preprod	prod	post prod
from 1st October 2013 to 9th June 2014 **9 months**	**from 10th June 2014 to 16th Frebruary 2015** **7 months**	**from 17th Frebruary 2014 to 6 July 2015** **5 months**
FPP - 14th March		**alpha** - 16th Frebruary **beta** - 15th May **release candidate PS4** - 15th June **release candidate XBOX One** - 15th June **release candidate PC** - 1st July **gold** - 6th July

busi ness

a production divided into three parts

During the **pre-production**, we planned the production. We give the creative direction and the artistic intentions. In the middle of this period, we deliver a **First Playable Prototype** which is a vertical slice. This prototype give a perfect idea of the content of the entire game.

For Skies Adrift, It's needed to add three month to the enjmin's pre-production to well plan the rest of the production.

The **pre-production** of Skies Adrift is planned from 1st October 2013 to 9th June 2014 and has a duration of nine months.

During the **production**, we simply produce all the content of the game. It's also the moment where the numbers of worker is highest. The period of production is considered as achieved with delivery of the **alpha version**.

The **post-production** is a very important period where there is a lot of milestones. We plan the delivrery of the different **release candidate** version according to the requirements of the constructors.

team growth

To answer to the increase of the work to do during the production it necessary to be able to react by managing the size of the team production.

It's during the production that the need of workers is the most important.
The intention of our studio is to plan perfectly the hirings in order to offer a six months contract minimum.

The amplitude between the basis employees number and the number reached at the pic of production is about **30%**.

With a production's duration of **21 month** (minus the 6 month of enjmin's pre-production) and **a staff varying from 20 to 30 employees**, we reach the number of **366 person/month** to complete the whole production.

team composing

Without give the complete detail of the team composing, we have to specify some important roles for the project.

Skies Adrift is a game where the universe is very important. The team will be compose by taking care to the roles of **Artistic Director**, **Environment artists** and **Composer**.

Others roles are really importants like a **feel engineer** to improve the pleasure felt by the navigation.

Finally, it's also important to ensure the quality of **graphics engineers** because the clouds's renderer is one of our greatest challenge on this project.

outsourcing plans

Outsourcing is the perfect solution to answer to a suddently huge amount of work or just to benefit of certains skills we cannot found in our teams.

For example, there is some assets for marketings which is interesting to make produce by other people like artworks or speed painting video.

It's important to provide the good brief to be sure the artists will respect your universe. However, this kind of freelance artist are the best specialists and you can be sure you will get an asset with the quality you expect.
Price : **DEMANDER A GARY, LESLIE**

To reach the quality level we expect for the animation of the character on the boat. Our studio doesn't have the benefit of a mocap studio so it essential to use the capacities of a company able to provide this kind of service.
The animation of the FPP of Skies Adrift has been made by the Mocap studio of Lionhead.
Price : **DEMANDER A JAMIE**

In order to communicate about the Skies Adrift universe, we planned to use the services of companies which can produce 2D animated cutscenes.
Cost : 5000€ for a minute.

Finally, let the responsibility to an third-party company produce the companion app of our game would allow us to stay concentrated for the main production.

The first challenge about the companion app production is to find every smart tricks possible in order to reduce the cost of production. It begin by share assets as far as possible (UI, code, musics, sounds, graphics).

The second difficulty that it important to be aware is the distance between the team producing the companion app and the the team producing the main game.

Indeed, the fact to not have the companion app team embedded with the game team has more defaults than advantages. So we have to take care about the communication between this two teams to minimize risks.
Price : **DEMANDER à POHLM**

busi ness

post launch plans and support

Ours will provide regular free adds to the game between his own launch and his the DLC launch induce some exploitation cost. We intend to be able to provide some technical updates to the players until five months after the DLC launch.

The servers necessary for the companion app will be available until five years after the game launch. The exploitation cost of this servers are adjusted according to the number of players using the companion app.

publishing support

In order to be able to reach the quality we expect and our business objectives, we are looking for a publishing partners with specific abilities.

It could be appropriate to give the responsibilities to our publishing partner to manage the localisation and the marketing actions.

We are aware how difficult it is to manage the submission of the game to the different constructors, that's why we want to take advantage of our partner's expertise on this point.

In order to increase the quality of our game we expect to use the Quality Assurance services provided by our future partner.

busi
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budget

how to finance the project

Extending from October 2013 to July 2015, the production reaches a duration of 21 months.

The staff varying from 20 to 30 employees during this period so we reach the number of 366 person/month to complete the whole production.

To evaluate the production cost, we count the value of 5000€ per employee.
This amount of money includes the taxed salary, the licencing costs and others costs like rent, water or electricity.

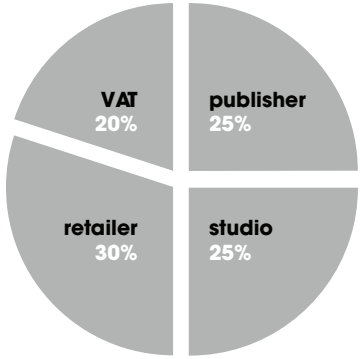
Production costs 2m€ with 366 man month rate for 21 month and the cost of risk management, we reach the cost of 2 m€.
This production cost include the cost of the DLC devlopment.

production costs

2m€

profits distribution

For the sale of a game, the retailer get 30%, the taxes get about 20%, the publisher get 25%. It rest 25% for the studio.



selling price

Regarding the length of the game and the selling price of our competitors, the selling price of Skies Adrift will be about 15€.

selling price

15€

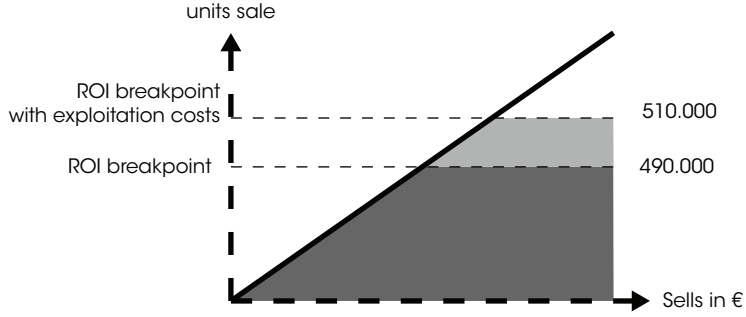
ROI breakpoints

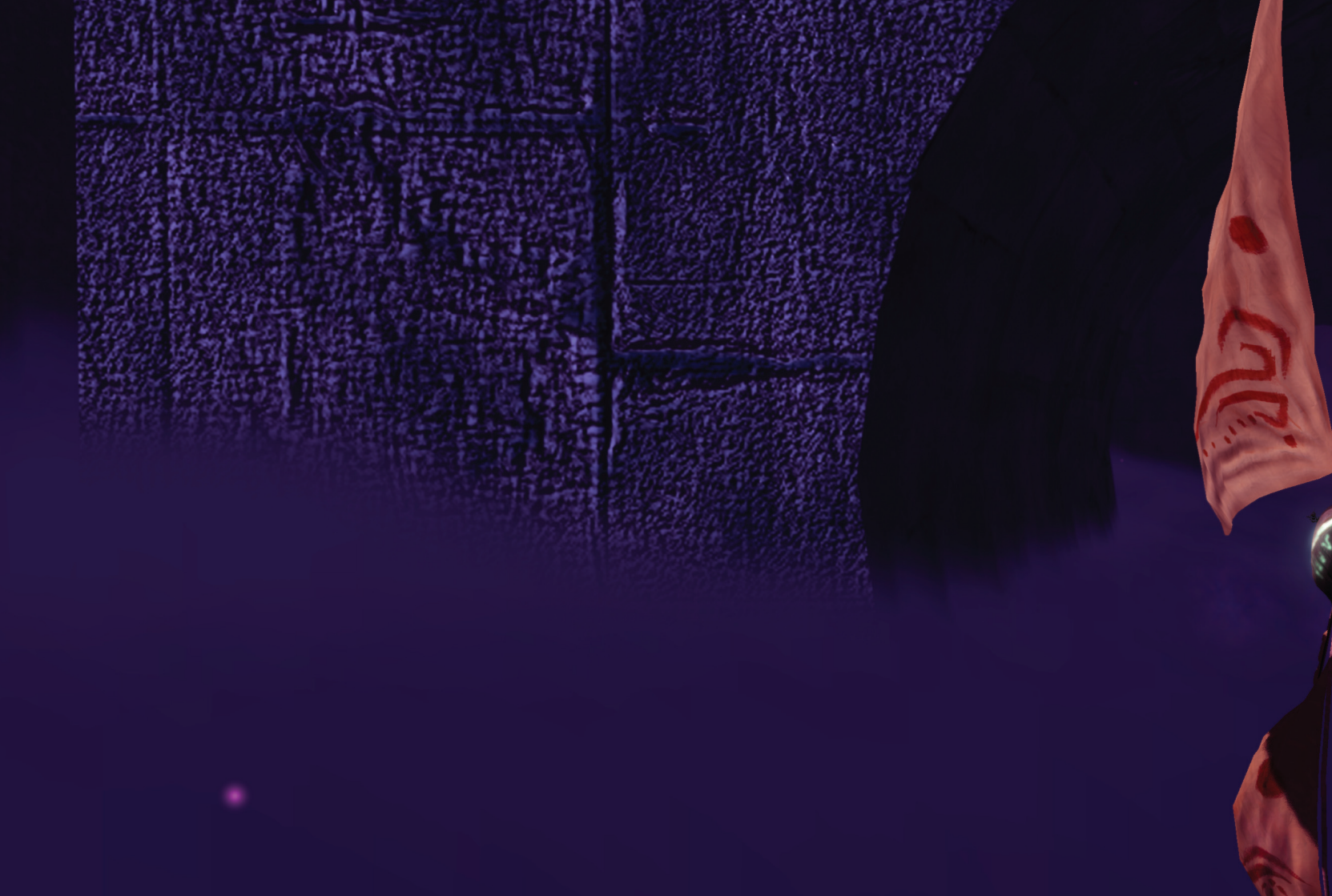
In order to do Skies Adrift a profitable game, we have reach **the Return On Investment breakpoint of 490 000 units sold.**

busi ness

exploitation costs

There is some costs to add but we can't evaluate it before to know the selling figures.
Every games has need to be updated to correct bugs or to improve stability or performances.
In order to fidelize our public, we want to deliver monthly free content depending on the will of the community.
The cost of this updates is evaluate at 5% of the ROI breakpoint, that bring his value from **490 000 to 510 000 units** to be absolutly profitable.





user
experience

user experience

In this part, we will explain how we have identified our users and their needs via questionnaires, focus groups and a persona, and how we have adapted our game to these users via playtests and the design of a tutorial.

user
exper
ience

identifying our users

The role of the UX Designer is to improve the usability of the player's experience. The way of using a product can be different from one person to another, so the first thing we had to do was to define exactly who is our audience. We already knew that Skies Adrift was a mix between two games: "The Legend of Zelda: The Wind Waker" and "Journey", so we decided to get more information about the audience of these two games. By navigating through forums on the internet, we managed to find almost a hundred of persons who defined themselves as a fan of one or two of those games. They filled out a questionnaire which allowed us to get more information on them, and those who lived near Angoulême accepted to participate to focus groups and playtests.

persona

A persona is a fictional example of a person, an archetype representing a specific group of users. The most important reason to create personas is to set a common understanding of the final user, so that a coherent strategy is defined that will result in a game that is user-oriented and meets the user goals. Personas give a name, face, and narrative to the «user» for whom we are designing; they make the concept of the user into an actual person with opinions, feelings and a voice.

With the data collected by the questionnaire, we created a persona representing the target of Skies Adrift.

Alice Robinson
Graduate student in Human sciences
22 years old

She's been playing video games since she was 10. She began playing on PC, then her parents offered her a Gamecube and she bought a Playstation 2 secondhand. When she was young, she loved Final Fantasy, Kingdom Hearts and Zelda games (her favorite game is The Wind Waker, followed by Majora's Mask). She dislikes first-person shooters. Today, she has a decent PC, a PS3 and a 3DS. She has also got her old Gamecube back. Among recent games, she liked playing to Journey, the Batman and Assassin's Creed games a lot. She spends around 6 hours a week playing to video games, and plays to one or two games a month. She owns around 25 games, and spends in average 65 pounds in a year for gaming. She mostly buys games secondhand, except for some big titles that she has waited for a long time. She learns about the next games to come out on specialized games such as Kotaku, and watches trailers to know whether to buy a game or not.

What she likes in video games is their universes, their art direction and the stories they tell. As for cinema, she prefers playing with the original voice-over. Her favorite movies are the Lord of the Rings trilogy, films from Miyazaki and from Jim Jarmusch. On TV, she loves Game of Thrones, Community, Breaking Bad and Stargate. Her favorite comic books are Watchmen and Death Note. She listens to rock mostly, as well as a little jazz and hip-hop. Usually her day consists in going to classes, spending a little time home, then going out to the cinema, reading a book, playing guitar a little or playing video games depending on what she feels like doing. Her college course gives her a lot of homework, so she spends most of her weekends studying at the library.

focus group

According to Krueger (1988), a focus group is a group of interacting individuals having some common interest or characteristics, brought together by a moderator, who uses the group and its interaction as a way to gain information about a specific or focused issue. A focus group is typically 7-10 people who are unfamiliar with each other. These participants are selected because they have certain characteristics in common that relate to the topic of the focus group. The moderator or interviewer creates a permissive and nurturing environment that encourages different perceptions and points of view, without pressuring participants to vote, plan or reach consensus. Group discussion is conducted several times with similar types of participants to identify trends and patterns in perceptions.

Two focus groups of 2 hours with 8 people (recruited with the questionnaire) were conducted in order to have a better

user experience

understanding the expectations of our future users. First, they had to give their opinion about different game mechanics, and the concept of Skies Adrift was then presented to them. Among the main features of the game, they had to say which one seemed the more important to them and why. Those focus groups allowed us to define some desires of our main audience:

- They wanted a very subtle HUD in order to enjoy the contemplation of the universe of the game.
- They wanted to discover the story beyond the universe by small graphic elements in the scenery, so they could have their own interpretation.
- They wanted the smallest possible amount of text.
- They wanted architectural remains, and fauna and flora elements in the cloud sea.
- They didn't want the sailing gameplay to be a simulation of real sailing, they wanted something simpler.
- They wanted to have the possibility to upgrade their ship.

All these desires were respected by the design team.

user
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adapting our game to the users

playtests

Skies Adift was developed with a user-centered design approach. An iterative process of development was used in order to do user testing between each version of the prototype. Changes have been made between each version based on the results of the previous playtest.

Four playtest sessions were conducted, with 5 to 8 different participants each time, recruited with the previous questionnaire. Different methodologies were used for each session, such as Think-Aloud, questionnaires, and video self-assessment. Here are a few examples of changes that have been made thanks to the playtests:

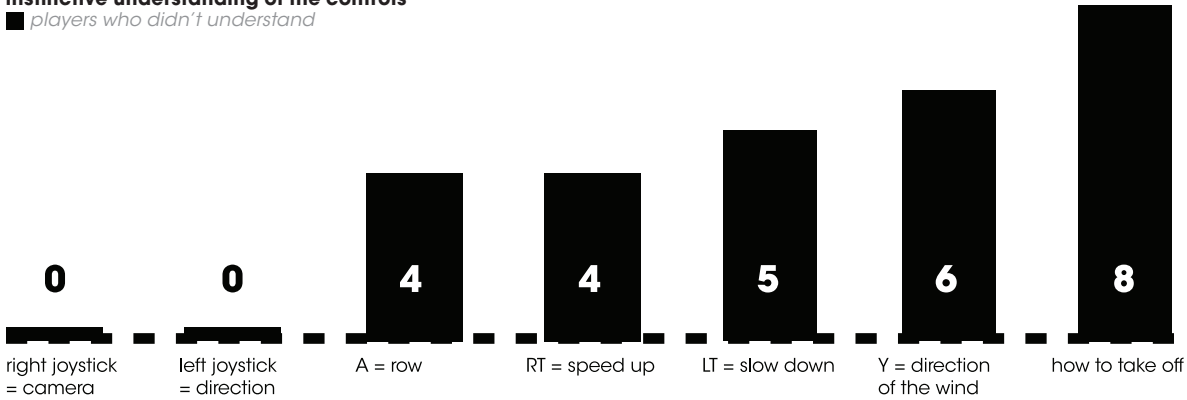
- The players didn't like using the left stick to go forward, it became automatic when the sails are open.
- Most players thought it was not intuitive to open and close the sails with the left and right buttons, so it has been decided to use the triggers instead.
- Players had a hard time to see if they were moving or not, so visual and sound feedback was added.
- A lot of players wanted to have the possibility of turning while they were flying, so it has been changed.
- Most players wanted to have control on the Y axis of the camera, so it has been added.

tutorial

During all the playtest sessions, no explanations were given at the beginning of the test, in order to see what the players would intuitively understand. On the last version of the prototype, a playtest session with 8 people showed these results:

instinctive understanding of the controls

players who didn't understand



A tutorial for the game has been written based on what the players intuitively understand and on what gave them a hard time. Controls are introduced one by one, and pressing a button which hasn't been explained before doesn't have any impact on the game. Every time the player needs to perform an action for the first time, the icon of the required input is displayed on the screen until the action is performed.

Goal 1: Teach the player how to move the boat and the camera

We teach in that order:

1. How to move the camera (Difficulty: *)
2. How to row with the left joystick and the A button (Difficulty: **)
3. How to open and close the sails in order to speed up and slow down (Difficulty: ***)

Proposal of context: Waban has to go somewhere with his boat in order to complete a trivial quest. This small quest also gives some information on Waban's background.

The player has to find where to go by using the camera. She doesn't know where to go until she uses it.

The player must then travel on a tortuous path by rowing. She won't manage to go to the end of the path if she doesn't row.

user experience

After that, the player is taught how to open and close the sails, on a flat cloud sea. For example, she has to follow a flying squirrel which moves at a non constant speed. If she is too far or too close to the fish, it dives into the clouds, and reappears after a while. The player has to follow it at the right distance by managing her speed for two minutes so it leads her to the next point of interest.

Goal 2: The first blue wind

We teach:

1. How to harvest blue wind, which is a secondary objective (Difficulty: *)
2. How the blue wind gauge works (Difficulty: **)
3. How to activate the sonar and how it works (Difficulty: ***)

The player discovers the first blue wind by following the flying squirrel, located so that the player is forced to go through it. If she stays near it for some amount of time before moving, a sign appears on the screen telling her to go through the blue wind.
Going through the blue wind triggers visual and audio feedback implying this is a positive action.

This harvest is followed by a cutscene showing that the untapped power of the ship awakens, and the gauge on the ship is revealed. The ship then emits a sound, and the camera shows an engine far away, which emits the same sound with a beacon of light.

Once the cutscene is over, the player regains the control of the ship. A message appears on the screen telling her to press the B button to activate the sonar. Once the player presses the button, the sonar activates,and a far engine emits a sound. When the player presses the B button again, lots of flying squirrels come out of the clouds and go towards the engine, breaking in their movement an obstacle which was in the player's way (so that she doesn't go to the engine until she has correctly used the sonar).

If the player doesn't go next to the engine, a message appears after some time along the way of "Press B to find where to go"

Goal 3: First navigation challenge

We teach:

1. How to activate the wind rose (Difficulty: *)
2. How to take off (Difficulty: **)

The player, on her way to the engine (still following tenths of flying fishes) discovers her first cloud dune. Once atop the dune, she sees a blue wind high in the sky. Unfortunately, she cannot reach it, since once the dune is climbed, the head wind pushes the ship back down. Next is a second dune to climb. Once the ship has gone up and done the dune (still against a head wind), the player hits an invisible wall: the wind is so strong the ship cannot move forward, and squirrels are sent in the opposite direction. A message appears on the screen telling players to press Y to see the wind direction.
If the player doesn't turn around in less than a minute, she is asked to do so by a new indication.
When she climbs the second dune in the opposite direction, a messages tells her to fully open the sails by pressing RT. Once atop the dune, the player with the sails fully open and with the wind in her back takes off for the first time and grabs the blue wind.

Goal 4: Second navigation challenge, introducing the hookshot

We teach:

1. How to take off many times (Difficulty: *)
2. How to use the hookshot to navigate (Difficulty: **)

Still following the flying squirrels and using the sonar to go towards the engine, the player encounters several navigation challenges. On each occasion, she must manage her speed and use the rose wind, as well as use the hookshot. Every time she must use the hookshot, messages tell her to use the X button to launch the hook, then to have it return to the boat.

Goal 5: First engine and first upgrade

We teach:

1. How to use the hookshot to solve puzzles (Difficulty: *)
2. The main objective of the game (Difficulty: *)
3. How to use the upgrade menu (Difficulty: **)

After going through all the navigation challenges on her path, the player reaches the first engine at last using her sonar. It is a very simple puzzle, that needs an use of the hookshot to be solved. When the player completes it, a cutscene starts allowing the player to understand the impact of this engine upon the Skygate. After the cutscene, it is asked of the player to open the upgrade menu by pressing RB. Once the upgrade is activated, the player goes back to the normal play mode and can see the blue wind gauge has went down to zero.

This tutorial will be implemented in the game and validated by playtests. Playtests will consist in game sessions including this tutorial, followed by the beginning of the game up to the second engine. During those playtests, the understanding of the game mechanics will be checked thanks to observable data such as the time needed to complete an objective, a questionnaire, and video self-assessments.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annexes and special informations

You will find there special thanks to people who helped us in this project, the graphic charter of our graphic design, the presentation of the team, etc.

annexes

special thanks

ENJMIN's teachers & technical staff for their support. Special thanks to Thierry Perreau, José Xavier, Sophie Pierson, Thérèse Sevrin-Renier, Charline Chappelle and Claire Guenault for their help, their patience and their kindness.

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The jury for their valuable advices.

The students from ENJMIN for their many counsels.

Focus group participants & testers for their relevant remarks.

Special thanks to Gary Carr, Jamie Galipeau, Lewis Harvey, Jurie Horneman and Emmanuel Guardiola for their great support.

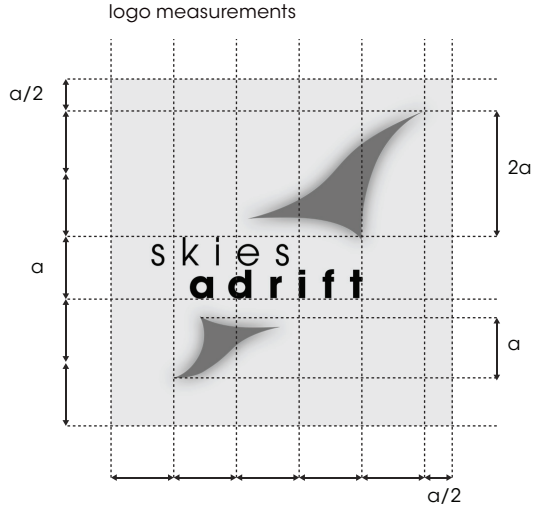
Very special thanks to Mark Vincent.

logo (positive version)

skies
adrift

logo (negative version)

logo measurements



Avant Garde Gothic
book

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Avant Garde Gothic
bold

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annexes

our graphic charter

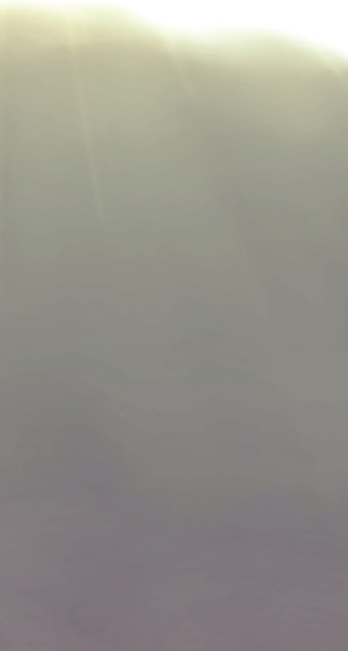
the logo

It's important for us to define how to communicate with *skies adrift*, because if we sell the project or if someone out of the team needs to use our brand, some rules must be respected.
We established two versions of the logo, one for a light background (postive version) and an other for a dark background (negative version). In each case the measurements stay the same. A safe zone (in grey) oblige any other element to stay out from it to keep the visibility of the logo as clear as possible.

typography

For the logo and for each document of the project, we use the Avant Garde Gothic font of Herb Lubalin. Two weight are used : book or bold.

annexes



DLC and companion app

free DLC

Once the game is launched, and until the release of a paid downloadable content, several updates are provided to the players. Those free DLC are distributed on a regular basis except for special events like Halloween or Christmas, which will be slightly different. The game will be on sale and will offer some variations according to the event. Those variations can be activated and disabled through the game menu.
The content of the monthly DLC can vary, we will propose:
- New animals to populate the cloud's sea.
- New navigation challenges.
- An extended version of some of the Ancient's Architecture in the game
For this last one, the idea is to expend some of the Ancient's buildings which go underclouds and adding new information about the background and the mysteries of the universe. Those buildings will be strongly linked to the companion app, which will be develop thereafter.

paid DLC

Approximately one year after the release, we will launch a paid DLC which will expand the adventures of Waban further, once he reached the skygate. This extension will tell how Waban travel to the Promised Land through the clouds.
This DLC will add one to two hours of gameplay.

companion app

The companion app is set for smartphones and tablets. It will be a travel journal.
The app is directly linked to the universe of the game. The first pages of the journal tell the everyday life of Waban, the others pages are blank. The player can write and draw on it, then he can share them with the community.

Navigation is tactile.
The player can tap to open the journal.
Zoom & pinch to zoom.
Swipe to turn a page

The player can also write & draw with his fingers.

Skies Adrift offers a rich universe with vestiges from a forgotten civilization. Ruins of this civilization are filled with fresco and inscriptions leading to the translation of an old language.
The translation of this language is a secondary aspect of the game which is fully developed through the companion app. Each puzzle is complex and must be solved by several players collaborating with each other's. Share information is the key for the community to resolve the mysteries.

The app allows the player to note, share and recover information.
A website will be put in place in order to gather all the information recovered by the community.

As the app is mostly about players providing their own content, the app don't use much assets. We use what we can from the original game to reduce costs (the journal and the drawing on the first pages are already planned for the game, for example).

annexes

annexes

the team presentation by specialities

management

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