Assignment #2 – From Design to Artifact

"The body is our general medium for having a world" – Maurice Merleau-Ponty, *Phenomenology of Perception*. This statement of a notoriously philosophical character could not fit more than in a digital virtual reality platform such as the proposal - *SeapVRzzle* - an immersive game in an underwater environment whose objective is to swim to find lost pieces on the ocean floor to complete a puzzle. Despite Merleau-Ponty's great fear of an observer not being able to reconcile his empiricist and intellectual perspectives, the game mentioned above is imbued with an essence of blending perceptions - exploring, observing, and feeling the environment through which reality virtual provides to find objects necessary for progress - and thinking / reasoning - the memory of the paths already traveled, and objects already observed, placing the piece in the puzzle with the correct configuration.

Taking into account the theory of phenomenology of interaction enunciated by Merleau-Ponty, it is possible to concentrate the ideal perception in a set of five properties: active, shaped by the phenomenological field, direct, mediated through artifacts, and involving the whole body. These five characteristics are, therefore, crucial to provide users with a captivating experience that allows them to dispose of resources exponentially automatically, that is, to quickly learn to handle the interface in question.

In *SeapVRzzle*, perception is active: movement, through swimming, will translate into a change in the configuration and dynamics of the environment, which will also imply a change and activity in the perception measured by the human. For example, if you swim to an area with a higher density of vegetation, you will have to show a greater degree of attention as the puzzle pieces may be camouflaged in these. In *SeapVRzzle*, perception is a consequence of the phenomenological field: the insertion of the user in an unknown, calm, beautiful, and exuberant environment will possibly bring memories, images, and thoughts to his head; more importantly, the immensity of the underwater environment will be the great cause of curiosity in the user, which in turn will be the primary motivation for him to proceed quickly to explore the ocean floor.

In *SeapVRzzle*, the perception is straightforward: nothing too complex; a camera typical of an FPS game, the puzzle in one corner with its progress and the environment shaping itself as the user moves and possibly hints in another corner and a timer. This is to make the user's viewing of the environment as natural as possible or, as they say in the slang of social networks, "no filters" so that he can enjoy a more genuine way of a place that, most likely never visited nor will ever visit in person.

In *SeapVRzzle*, perception is mediated through artifacts: this property will probably be the most noticeable, since it is a virtual reality game in which the main feature is, in fact, the simulation of swimming movement with VR controllers. These, along with the VR headset, are the artifacts that mediate the user's perception of the *SeapVRzzle*. Obviously, as in any situation where you want to portray the real world in the digital world, the realistic simulation of swimming will be a challenge, however, a challenge that will be worth completing as it will give a unique touch of authenticity and immersion.

Finally, in SeapVRzzle, perception involves the whole body: senses - vision - dynamics, configuration, and colors of the environment, hearing - ambient noises i.e. of water, touch - although not entirely real, it is simulated by the commands in the act of swimming and handling the pieces), brain - the emergence of emotions, images, memories and reasoning inherent to the exploration of the environment to find pieces and place them correctly in the puzzle - muscles - simulation of swimming through the movement of the arms, with the VR commands held in the hands (arms, chests, shoulders). The primary objective of *SeapVRzzle* is undoubtedly the gathering and sharpening of cognitive and physical abilities (user characteristics, in the real world) that are reflected in the completion of a very simple challenge - a puzzle (a world of virtual, digital reality), or in other words, the perception in *SeapVRzzle* undoubtedly involves the whole body.

In conclusion, it is necessary to emphasize the importance that Merleau-Ponty's theory of phenomenology and the implications that derive from it had in the initial phase of the development of *SeapVRzzle*, namely in the execution of low and medium-resolution prototypes and mental experiments such as of the Wizard of Oz. The working group behind the development of the VR game took the live body concept so literally that it proactively decided to simulate the underwater environment and solve the puzzle in question in a swimming pool. At first glance, it may seem like a rather absurd idea, but the fact that it brought to the group several fundamental considerations and ideas to validate and improve the interface design and the platform mechanics is undeniable. This real-life simulation allowed a very close perception of what a user would have as first impressions and perceptions when using *SeapVRzzle* for the first time.