

**DESIGNAR: LIVE AND MAKE LIVE — ADAPTIVE STRATEGIES FOR
URBAN REVITALIZATION THROUGH INTERFACE DESIGN AND
UNIVERSITY EXTENSION ACTIONS**

*DESIGNAR: VIVA E FAÇA VIVER — ESTRATÉGIAS ADAPTATIVAS PARA
REVITALIZAÇÃO URBANA ATRAVÉS DO DESIGN DE INTERFACES E AÇÕES
EXTENSIONISTAS*

*DESIGNAR: VIVE Y HAZ VIVIR — ESTRATEGIAS ADAPTATIVAS PARA LA
REVITALIZACIÓN URBANA A TRAVÉS DEL DISEÑO DE INTERFACES Y
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*DESIGNAR : VIS ET FAIS VIVRE — STRATEGIES ADAPTATIVES POUR LA
REVITALISATION URBAINE PAR LA CONCEPTION D'INTERFACES ET DES
ACTIONS D'EXTENSION UNIVERSITAIRE*

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Abstract: This scientific article provides an in-depth account of the university extension experience carried out during the 2024.2 academic semester under the coordination of the Experimental Design Agency of the Unifanor Wyden University Center. The investigation is a direct practical and methodological outgrowth of the master's dissertation developed in the City Sciences program, entitled "Viva E Faça Viver - Estratégias Adaptativas para Revitalização Urbana" ("Live and Make Live - Adaptive Strategies for Urban Revitalization"). The primary objective of this action was to bring the theoretical precepts grounded in Complex Adaptive Systems (CAS) and in urban revitalization theories into the realm of social praxis. This was achieved through the planned development of a digital interface, configured as an application focused on User Experience (UX) Design and User Interface (UI) Design. The tool was designed to act as a Big Data manager focused on Fortaleza's cultural scene, establishing a network of intelligent and dynamic connections among three fundamental agents of the urban fabric: independent local artistic collectives, cultural facilities established in the central region of the city, and the consuming public. The scientific justification for this proposal rests on the architectural and urbanistic understanding that urban centers, caught in a state of seasonal obsolescence and underuse outside business hours, require continuous sources of vital nourishment to mitigate socio-spatial degradation. Through a biological parallel with the behavior of the slime mold *Physarum polycephalum*, it was identified that independent cultural manifestations function as true energetic and metabolic attractors capable of reconfiguring urban space in an adaptive way. The methodology comprised the formal submission of institutional calls for proposals, the selection and rigorous training of a group of student monitors, the execution of qualitative and quantitative field research, in-depth interviews with multiple artistic collectives in the city, and the establishment of an integrated communication strategy through the production of the DEXOCAST podcast. The process culminated in an interactive, navigable prototype in the Figma software and in the complete structuring of the Visual Identity Manual of the "Designar" brand. It is concluded that involving students in an extension project of this magnitude produces a double legacy of immeasurable value, since it promotes a direct socio-spatial and cultural impact on the city while consolidating the methodological learning of Strategic Design, paving a consistent path for the continuation of the research at the doctoral level.

Keywords: Urban Revitalization; Interface Design; Complex Adaptive Systems; University Extension; Visual Identity.

Resumo: O presente artigo científico relata de maneira aprofundada a experiência extensionista vivenciada durante o semestre letivo de 2024.2 no âmbito da coordenação da Agência Experimental de Design do Centro Universitário Unifanor Wyden. A investigação constitui-se como um desdobramento prático e metodológico direto da dissertação de mestrado desenvolvida no programa de Ciências da Cidade, intitulada "Viva E Faça Viver - Estratégias Adaptativas para Revitalização Urbana". O objetivo primordial desta ação residiu em transpor os preceitos teóricos fundamentados nos Sistemas Complexos Adaptativos (CAS) e nas teorias de revitalização urbana para o plano da práxis social. Isso se concretizou por meio do desenvolvimento planejado de uma interface digital, configurada como um aplicativo focado em Design de Experiência do Usuário (UX) e Design de Interface do Usuário (UI). Esta ferramenta foi projetada para atuar como um gestor de Big Data focado no cenário cultural de Fortaleza, estabelecendo uma rede de conexões inteligentes e dinâmicas entre três agentes fundamentais do tecido urbano: os coletivos artísticos independentes locais, os equipamentos culturais estabelecidos na região central da cidade e o público consumidor. A justificativa científica desta proposta ampara-se na compreensão arquitetônica e urbanística de que os centros urbanos, flagrados em um estado de obsolescência sazonal e subutilização fora do horário comercial, demandam fontes contínuas de nutrição vital para mitigar a degradação socioespacial. Através de um paralelo biológico com o comportamento do bolor limoso *Physarum polycephalum*, identificou-se que as manifestações culturais independentes funcionam como verdadeiros atratores energéticos e metabólicos capazes de reconfigurar o espaço urbano de maneira adaptativa. A metodologia compreendeu a submissão formal de editais institucionais, a seleção e o treinamento rigoroso de um corpo de alunos monitores, a execução de pesquisas de campo qualitativas e quantitativas, a realização de entrevistas em profundidade com múltiplos coletivos artísticos da cidade e o estabelecimento de uma estratégia integrada de comunicação por meio da produção do podcast DEXOCAST. O processo culminou na prototipagem interativa e navegável no software Figma e na estruturação completa do Manual de Identidade Visual da marca "Designar". Conclui-se que a inserção dos discentes em um projeto extensionista dessa magnitude gera um duplo legado de imensurável valor, pois promove um impacto socioespacial e cultural direto na cidade ao mesmo tempo em que consolida o aprendizado metodológico do Design Estratégico, pavimentando um caminho consistente para a continuidade da pesquisa em nível de doutorado.

Palavras-chave: Revitalização Urbana; Design de Interface; Sistemas Complexos Adaptativos; Extensão Universitária; Identidade Visual.

Resumen: El presente artículo científico relata de manera profunda la experiencia de extensión vivida durante el semestre lectivo 2024.2, en el ámbito de la coordinación de la Agencia Experimental de Diseño del Centro Universitario Unifanor Wyden. La investigación se constituye como un desdoblamiento práctico y metodológico directo de la tesis de maestría desarrollada en el programa de Ciencias de la Ciudad, titulada "Viva E Faça Viver - Estratégias Adaptativas para Revitalização Urbana". El objetivo primordial de esta acción consistió en trasladar los preceptos teóricos fundamentados en los Sistemas Complejos Adaptativos (CAS) y en las teorías de revitalización urbana al plano de la praxis social. Esto se concretó mediante el desarrollo planificado de una interfaz digital, configurada como una aplicación centrada en el Diseño de Experiencia de Usuario (UX) y el Diseño de Interfaz de Usuario (UI). Esta herramienta fue concebida para actuar como gestora de Big Data enfocada en el escenario cultural de Fortaleza, estableciendo una red de conexiones inteligentes y dinámicas entre tres agentes fundamentales del tejido urbano: los colectivos artísticos independientes locales, los equipamientos culturales establecidos en la región central de la ciudad y el público consumidor. La justificación científica de esta propuesta se apoya en la comprensión arquitectónica y urbanística de que los centros urbanos, sorprendidos en un estado de obsolescencia estacional y subutilización fuera del horario comercial, demandan fuentes continuas de nutrición vital para mitigar la degradación socioespacial. A través de un paralelo biológico con el comportamiento del moho mucilaginoso *Physarum polycephalum*, se identificó que las manifestaciones culturales independientes funcionan como verdaderos atratores energéticos y metabólicos capaces de reconfigurar el espacio urbano de manera adaptativa. La metodología comprendió la presentación formal de convocatorias institucionales, la selección y el riguroso entrenamiento de un cuerpo de estudiantes monitores, la ejecución de investigaciones de campo cualitativas y cuantitativas, la realización de entrevistas en profundidad con múltiples colectivos artísticos de la ciudad y el establecimiento de una estrategia integrada de comunicación mediante la producción del pódcast DEXOCAST. El proceso culminó en la creación de un prototipo interactivo y navegable en el software Figma y en la estructuración completa del Manual de Identidad Visual de la marca "Designar". Se concluye que la inserción de los estudiantes en un proyecto de extensión de esta magnitud genera un doble legado de inmenso valor, pues promueve un impacto socioespacial y cultural directo en la ciudad al mismo tiempo que consolida el aprendizaje metodológico del Diseño Estratégico, allanando un camino consistente para la continuidad de la investigación a nivel de doctorado.

Palabras clave: Revitalización urbana; Diseño de interfaz; Sistemas complejos adaptativos; Extensión universitaria; Identidad visual.

Résumé: Le présent article scientifique rend compte de manière approfondie de l'expérience d'extension universitaire vécue au cours du semestre 2024.2, dans le cadre de la coordination de l'Agence Expérimentale de Design du Centre Universitaire Unifanor Wyden. La recherche constitue un prolongement pratique et méthodologique direct du mémoire de master développé dans le programme de Sciences de la Ville, intitulé « Viva E Faça Viver - Estratégias Adaptativas para Revitalização Urbana ». L'objectif premier de cette action a été de transposer les préceptes théoriques fondés sur les Systèmes Complexes Adaptatifs (CAS) et sur les théories de la revitalisation urbaine vers le plan de la praxis sociale. Cela s'est concrétisé par le développement planifié d'une interface numérique, configurée comme une application centrée sur la conception de l'expérience utilisateur (UX) et de l'interface utilisateur (UI). Cet outil a été conçu pour agir comme gestionnaire de Big Data axé sur la scène culturelle de Fortaleza, établissant un réseau de connexions intelligentes et dynamiques entre trois acteurs fondamentaux du tissu urbain : les collectifs artistiques indépendants locaux, les équipements culturels implantés dans la région centrale de la ville et le public consommateur. La justification scientifique de cette proposition s'appuie sur la compréhension architecturale et urbanistique selon laquelle les centres urbains, saisis dans un état d'obsolescence saisonnière et de sous-utilisation en dehors des heures commerciales, exigent des sources continues de nourriture vitale pour atténuer la dégradation socio-spatiale. À travers un parallèle biologique avec le comportement du myxomycète *Physarum polycephalum*, il a été identifié que les manifestations culturelles indépendantes fonctionnent comme de véritables attracteurs énergétiques et métaboliques capables de reconfigurer l'espace urbain de manière adaptative. La méthodologie a comporté le dépôt formel d'appels à projets institutionnels, la sélection et la formation rigoureuse d'un groupe d'étudiants moniteurs, la réalisation d'enquêtes de terrain qualitatives et quantitatives, des entretiens approfondis avec de multiples collectifs artistiques de la ville et la mise en place d'une stratégie de communication intégrée par la production du podcast DEXOCAST. Le processus a abouti à un prototype interactif et navigable dans le logiciel Figma et à la structuration complète du Manuel d'Identité Visuelle de la marque « Designar ». Il est conclu que l'insertion des étudiants dans un projet d'extension de cette ampleur produit un double héritage d'une valeur inestimable, puisqu'il favorise un impact socio-spatial et culturel direct sur la ville tout en consolidant l'apprentissage méthodologique du Design Stratégique, ouvrant une voie cohérente pour la poursuite de la recherche au niveau du doctorat.

Mots-clés: Revitalisation urbaine; Conception d'interfaces; Systèmes complexes adaptatifs; Extension universitaire; Identité visuelle.

1 Introduction

The contemporary higher education scenario requires academic institutions to adopt a stance that goes beyond the traditional limits of the classroom, demanding the active insertion of their agents into the social and urban dynamics that surround the university. In the bachelor's program in Design at the Unifanor Wyden University Center, this premise is turned into a pedagogical guideline, seeking to structure a learning environment that stimulates critical thinking, intellectual autonomy and the social responsibility of students. Design students are constantly challenged to see a project not merely as an aesthetic artifact or a commercial consumer product, but as a tool for cultural mediation and for transforming collective realities. It is from this perspective that the Experimental Design Agency, affectionately called DEXO, establishes itself in the institution's academic ecosystem. The agency works as a living laboratory and a space for professional immersion in which students find the adequate infrastructure and the conceptual support needed to test the theories absorbed throughout the curriculum against concrete demands coming from the Fortaleza community itself.

The academic relevance of extension actions lies precisely in this capacity to bring tension to and articulate the fundamental tripod of teaching, research and extension. By engaging in projects of this nature, the student body enjoys enriching practical experiences that anticipate the complexities of the job market, while being introduced to

the rigors of applied scientific research. This pedagogical process leaves a deep and indelible legacy in the future designer's education, allowing the development of a keen social sensitivity regarding the impact of design decisions on citizens' well-being. On the other hand, for the faculty, such initiatives represent a unique opportunity to continue their scientific investigations, made possible by institutional incentive grants and by access to equipped laboratories, which strengthens the institution's internal academic production and projects the university's name beyond its geographic walls.

During the 2024.2 academic semester, this panorama of the inseparability of theory and practice took on specific contours when the call for proposals supporting extension and internationalization culminated in the approval of this author, Professor Petrus Moura Barbosa, to assume the coordination and scientific leadership of the Experimental Design Agency. The award of this incentive and coordination grant was a fundamental strategic step toward continuing the pillar project that structured my master's research in the field of City Sciences, whose dissertation defended the theme entitled "Viva E Faça Viver - Estratégias Adaptativas para Revitalização Urbana".

The greater purpose of the experimental agency in this period was to take the macro-urban conceptual framework generated in the master's program and transmute it into micro-scale technological and visual solutions, focused especially on Visual Identity Design and on User Experience and Interface Design (UX/UI). This extension action was designed not merely as the closing of a cycle but, primarily, as the structuring of a robust and empirically tested pre-project for admission to a doctoral program. By involving the student monitors selected through a public call in solving a real urban problem, the agency established a direct communication channel between graduate-level scientific production and undergraduate laboratory practice, showing that strategic design has the properties needed to map, organize and vitalize the complex networks that make up the cultural ecosystem of a metropolis.

2 Justification

The debate on urban planning and the preservation of historic centers has called for deep reflection on the dimension of time and the ephemerality of the social dynamics that shape the built space. The master's research that serves as the foundation for this article offers a severe critique of the way traditional architecture often locks itself into immutable, single-function solutions that do not follow society's transformations over the years. This critical stance finds strong echoes in the formulations of the cybernetic architects of the 1960s, notably the theoretical contributions of Cedric Price and John Frazer. These avant-garde thinkers proposed that buildings and cities should be conceived as open, flexible systems capable of learning and dynamically interacting with the changing needs of their occupants, anticipating an era in which architecture would incorporate parameters from information technology and biology in order to remain functional and responsive.

Turning this critical gaze to the contemporary reality of the central area of the city of Fortaleza, capital of the state of Ceará, an alarming morphological and social contradiction becomes evident. During business hours on weekdays, the urban center pulses intensely, with a continuous flow of workers, consumers and pedestrians filling the public streets in an effervescent commercial dynamic. However, at nightfall and on weekends, this same territory suffers an abrupt emptying, transmuting into a scene of abandonment, silence and social vulnerability. The diagnosis made in the master's research indicates that this seasonal obsolescence stems directly from the almost exclusive use of commercial and administrative typologies in the fabric of the center. As a

direct consequence of this excessive functional specialization, the large and important cultural facilities that enrich downtown Fortaleza, such as the imposing Cineteatro São Luiz, the historic Teatro José de Alencar, the Dragão do Mar Center for Art and Culture, the iconic Praça dos Leões and the pleasant Passeio Público, end up operating as true isolated islands of activity, surrounded by an urban desert devoid of housing and community vitality outside traditional working hours.

To understand and mitigate the chronic decay that affects the central region of metropolises, the research moves away from rigid Cartesian models of urban planning and delves into the complex theoretical approaches of Complex Adaptive Systems (CAS).

From this systemic perspective, the city is not seen as a static machine but as a living organism composed of interdependent networks of agents in constant interaction. Within this theoretical matrix, the cultural facilities of the center and, in particular, the manifestations and performances of independent artistic collectives are raised to the status of “Attractors”. They function as poles that emit energy and attract human flows, acting as true sources of biological nourishment needed to keep the complex urban system in a healthy state of dynamic equilibrium.

This concept establishes a close and thought-provoking analogical connection with the biological behavior of the slime mold known scientifically as *Physarum polycephalum*. As widely discussed and documented in the scientific literature, especially in the article “How Brainless Slime Molds Redefine Intelligence” by the science journalist Ferris Jabr, published in 2012, this single-celled, multinucleate amoeba displays an impressive capacity for information processing and decision-making without possessing a central nervous system. *Physarum polycephalum* manages to solve highly complex geometric mazes and to optimize nutrient transport routes between different food sources in order to ensure the survival and resilience of its colony, forcing the scientific community to rethink the limits of intelligent behavior.

The parallel built in the master's dissertation uses this lesson from biology to show that, just as the slime mold expands and reorganizes its morphological channels motivated by the location of food sources, the urban fabric of a historic center also has an intrinsic capacity to self-organize and adapt if there are continuous sources of artistic and cultural nourishment spread across its territory. The relevance of art and culture thus lies in their capacity to act as this metabolic input able to trigger a positive radial contamination. Occupying a public space with artistic manifestations generates a cascade effect that attracts new users, who in turn demand new services and activities, curbing the feeling of insecurity and degradation through mere human co-presence. This logic is the core of the motto “Live and Make Live” (“Viva e faça viver”): the act of actively occupying the center is the only strategy capable of keeping it systemically alive.

While the investigation conducted in the master's program focused on a macro-urban scale, observing the city's general plan and its structural guidelines, this article uses a close-up lens focused on the micro-urban scale. The goal is to establish an intimate dialogue with the independent artists and local collectives of Fortaleza, seeking to understand up close their everyday realities, their greatest operational pains and the immense latent potential they carry to act as the true attractors of the center's revitalization. By bringing this methodological magnifying glass to Fortaleza's cultural ecosystem, the research seeks to decode the sensibility and visual identity of these artists, equipping the Experimental Design Agency with the essential qualitative information needed to design a technological interface that is truly responsive to the needs of the people who keep the city's culture pulsing.

3 Objective

The general objective of this work is to plan, structure and carry out a continuous extension action through the laboratory activities of the Experimental Design Agency of the Unifanor Wyden University Center during the 2024.2 semester. This action aims to give practical, technological and social applicability to the theses originally raised within the Master's in City Sciences, directing the institution's technical support and physical infrastructure toward strengthening Fortaleza's independent artistic collectives through the detailed development of a digital application interface conceived from the perspective of a large-scale manager of cultural data and connections (Big Data).

Specific Objectives:

1. Mapping and Diagnosis of the Cultural Ecosystem: Carry out a detailed empirical survey to identify, quantify and catalog the artistic collectives and independent artists working in the city of Fortaleza, classifying them according to their respective modes of expression, such as dance, music, body expression, street theater and visual communication, while also mapping their dissemination channels, the financial support networks or public calls they access, the regularity of their performances and the supporting urban infrastructure available to them.
2. UX Research and User-Centered Information Architecture: Develop the information architecture and navigation flows of the projected technological interface, segmenting and deeply understanding the behavioral dynamics of three distinct classes of users that make up the urban complex adaptive system: end consumers seeking cultural activities, artists and collectives acting as service providers and attractors of vitality, and the managers of Fortaleza's downtown cultural facilities that provide the physical infrastructure for the manifestations.
3. Development of Brand Identity and UI Design: Conceive and carefully structure the Visual Identity Manual and the interface style guide (Design System) of the application brand called "Designar", adopting the popular expressions and urban cultural identity of Fortaleza as the fundamental conceptual pillars for creating the system's graphics, colors, logos and typefaces.
4. Promotion of Research and Academic Integration: Train the student monitors who are part of the Experimental Design Agency in advanced Design Thinking methodologies, UX Research and agile prototyping, solidifying a lasting and fruitful channel of dialogue between the academic production of the Unifanor Wyden University Center and the external artistic community.

4 Methodology

The methodological path that guided the development of all the activities carried out at the Experimental Design Agency during the 2024.2 semester was structured on the precepts of action research and Design Thinking, divided into interdependent stages described in a purely textual and chronologically linked manner.

The process began with the institutional procedures for formally submitting the coordination proposal and scientific work plan to the academic coordination of the Design program and to the Extension and Internationalization Program (PEI). Once the scope of the project was validated, the public selection call for student monitors was carefully drafted, stipulating the technical criteria required for admission, the schedule of activities planned for the semester and the digital registration form via Google Forms. The call was disseminated on August 21, 2024 through posts in the program's communication groups on WhatsApp, official announcements via Microsoft Teams and in-person approaches in

classrooms. The registration window closed on August 27, 2024, giving way to the analysis of profiles and the publication of official results on August 28, culminating in an initial technical training session conducted remotely via Teams on August 30, 2024 to align expectations and work tools.

The team's practical immersion in the institution's physical premises was consolidated with the first in-person strategic alignment meeting, held on September 2, 2024 in the rooms of the Experimental Design Agency and in the podcast recording studio. A second meeting took place on September 5, 2024 at the facilities of the Communication Center (NUCOM) to define the final semester schedule and distribute individual and collective tasks.

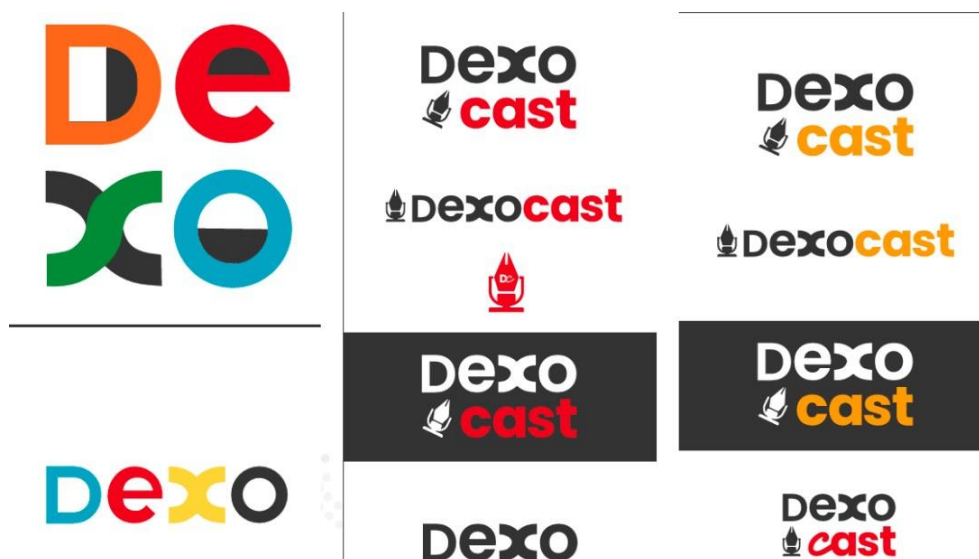
Among the first goals established, the mapping and identification of the campus's technical resources stood out, to make possible the creation of the podcast called DEXOCAST, conceived as the main mass-communication tool for publicizing the laboratory's activities, lectures, workshops and discussion circles. The scheduling of the first interviews was also arranged, together with the organization of the inaugural class for the student community, preparatory actions integrated with ENADE, the creation of institutional profiles on digital media, the sending of corporate e-mails, a professional photo shoot with the agency's members and the creation of a temporary brand identity to standardize the templates for posts and communications on social media.

Figure 1 – Experimental Design Agency - DEXO TEAM



Source: Author's personal archive (2024).

Figure 2 – Experimental Design Agency - DEXOCAST Visual Identity



Source: Author's personal archive (2024).

The academic schedule continued with the Inaugural Class and the official start of the DEXOCAST audio and video recordings on September 9 and 12, 2024. In the meantime, a formal request came from the guest speaker and artist Lívia Mendes to postpone the ENADE-integrated action to September 16, 2024, when the professional, renowned in the local urban muralism scene, taught a practical lettering workshop applied to the anatomy of type for students enrolled in the program's Typography course. Lívia Mendes also recorded her collaboration by taping the second episode of DEXOCAST on September 9. In parallel, the agency's inaugural class took place on September 12, 2024 with the participation of the alumnus Diógenes da Silva, who discussed in depth the concept of Design System in the corporate market, taking part in the podcast recording on the same date.

Including Diógenes was a highly strategic methodological decision made by the coordination to give the agency's monitors the practical grounding needed to componentize and standardize the interface prototype that would be designed, as well as to integrate the rest of the undergraduate students into the routines of the extension project.

Figure 3 – Experimental Design Agency - DEXOCAST with Livia Mendes



Source: Author's personal archive (2024).

Figure 4 – Experimental Design Agency - DEXOCAST with Diógenes da Silva



Source: Author's personal archive (2024).

Figure 5 – Experimental Design Agency - Design System Talk with Diógenes



Source: Author's personal archive (2024).

Figure 6 – Experimental Design Agency - Lettering Workshop with Livia Mendes



Source: Author's personal archive (2024).

The regularity of in-person activities remained firm with the weekly review meeting on September 16, 2024. Between September 16 and 17, the team concentrated its efforts on the initial registration of the mapped commercial partners and artistic collectives, starting the formal approach contacts between September 18 and 19, 2024, which resulted in the completion and submission of the partial report on extension activities on September 20, 2024. The cartographic survey sought to extract from digital networks and informal contacts the largest possible volume of information about local artists, instituting a standard message of institutional presentation of the agency and inviting the mapped agents to interviews and qualitative diagnoses.

On October 3, 2024, the team met in person to draft and validate the briefing form to be applied to the mapped artists. In parallel, the structural planning and information architecture of the experimental agency's institutional website began, autonomously programmed by the monitor Filipe Andrade. On the same date, a new episode of

DEXOCAST was recorded, with the mediation of Professor Petrus Moura, the participation of the monitor Noeme Stefany and the testimony of Professor Rafael Parente, a faculty member linked to the network of Centro Cuca facilities in Fortaleza. The dialogue with Parente was of great methodological importance, as it revealed that the Rede Cuca is the main, and sometimes only, structured support and public funding channel available to young artists from Fortaleza's outskirts to express their languages to the public. This finding showed a severe scarcity of open public calls and funding at other downtown cultural facilities for emerging artists, providing fundamental input for modeling the behavioral characteristics of the Buyer Personas that guided the brand identity and UX project.

The in-depth research phase advanced significantly on October 10, 2024, with a detailed in-person meeting with the leaders and coordinators of the urban dance groups DAE Dance Group and Daemoon Dance Group. The meeting was fully documented through photographic records and high-definition audio recordings, making it possible to transcribe and extract the main functionalities (*features*) required by the artists for the design of the connections application. Subsequently, on October 16 and 18, 2024, new recordings took place in the DEXOCAST studios, led by the monitors Leticia Figueiredo, Débora Mara and Noeme Stefany, interviewing the local independent artists known as Abrão and Becca. The empirical data accumulated in these immersions served as the technical substrate for the team to begin drafting the Visual Identity Guide of the application “Viva Faça Viver”, relying on classic design project methodologies through three complementary analytical stages: an in-depth client analysis (based on the coordinator's master's dissertation), a market analysis (mapping the dynamics of the center's cultural facilities) and a target-audience analysis (interpreting the demands collected from artists and collectives).

Figure 7 – Experimental Design Agency - DAE and Daemoon Dance Group



Source: Author's personal archive (2024).

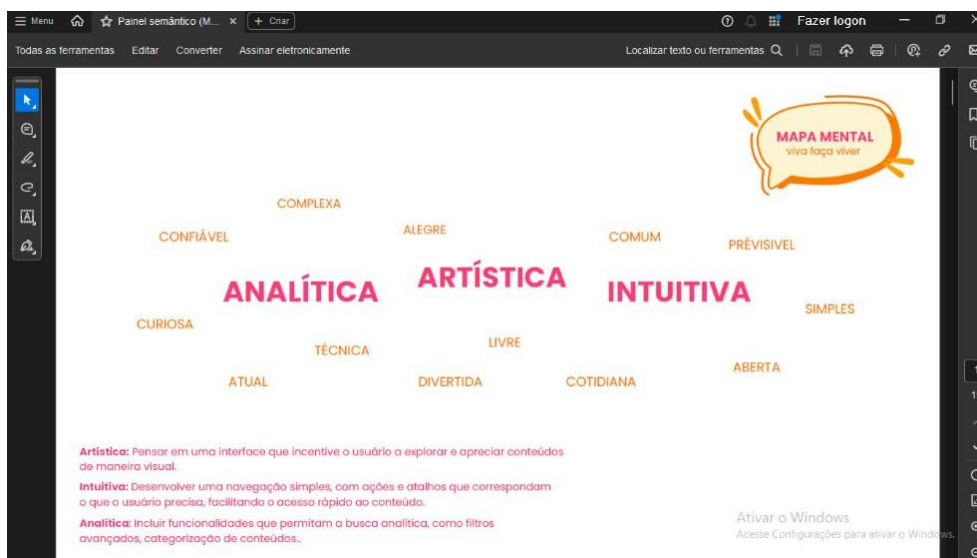
Figure 8 – Experimental Design Agency - Abrão and Becca



Source: Author's personal archive (2024).

From this cross-referencing of data, a *brainstorming* session was structured that produced the mind map of brand attributes, listing the main adjectives attributed by interviewees regarding the social role the interface should play. Next, the mind map of visual expectations was drawn to define the interface's personality traits, consolidating concepts such as artistry, analytical capacity, curiosity, youthfulness, joy, accessibility and a democratic, mass-appeal character.

Figure 9 – Experimental Design Agency - Attributes Mind Map



Source: Author's personal archive (2024).

Figure 10 – Experimental Design Agency - Expectations Mind Map



Source: Author's personal archive (2024).

Figure 11 – Experimental Design Agency - Semantic Panel



Source: Author's personal archive (2024).

The existential purpose of the application was defined as the act of promoting “life” in the city center through artistic decentralization, delimiting a target audience made up of open genders and classes aged eighteen and over with evident cultural affinity. The means of design insertion were delimited to native application platforms, social networks and responsive websites, choosing symbols linked to organicity, biological pulsation, earthy and warm colors interwoven with biological green, and minimalist, contemporary typefaces. A semantic panel, or *moodboard*, was created digitally to materialize these sensations and translate into coherent visual language the stylistic paths adopted by the team.

Simultaneously with the visual development, the agency prepared an exhaustive technical inventory of the main cultural facilities of Fortaleza's historic center, including the Dragão do Mar Center, the Teatro José de Alencar and the Cineteatro São Luiz. The team sought to trace the historical evolution of each of these spaces, identifying the

traditional communication channels they use to speak to the final audience and the bureaucratic mechanisms required to hire and host providers of artistic services. The critical variables pointed out by local users and visitors in deciding whether to visit these spaces were also investigated, considering peak operating hours, the ease of buying or reserving tickets in advance through digital channels, and the accessibility and urban-mobility infrastructure available in the immediate surroundings, such as the distance to commercial bus stops, the supply of public or private parking, and the interconnection with sustainable and complementary transport modes, such as Bicicletar system stations or shared electric scooters. This diagnosis scientifically confirmed the argument defended in the master's dissertation that human circulation and ease of urban access mitigate the feeling of abandonment of the historic center ("life begets life").

The final stages of conceptual development materialized in the careful production of the interface's brand manual, officially named "DESIGNAR: Viva e faça viver" ("DESIGNAR: Live and Make Live"). The structured technical document included rigorous chapters containing the institutional presentation of the brand, the concept of the name, the semiotic decoding of the arrow and mosaic symbols, the technical specifications of the color palette and textures with their respective HEX, RGB, CMYK and Pantone codes, the standardization of the Staatliches Regular and Afacad Flux typeface families, the geometric normalization of the logo in its different structural variations and the rules for application on contrasting backgrounds. On October 25, 2024, the high-fidelity navigable prototype of the interface was formally presented to all members of the experimental agency. Developed collaboratively and interactively within the Figma software, the prototype faithfully simulated the usability flows designed to address the pains of independent artists.

The continuous refinement of this technological product was fed by new rounds of in-person and remote meetings via Microsoft Teams held on October 29, 2024 with the directors and choreographers of the dance collectives Ghetto Fayah and Primadonna, followed by meetings on November 5 and 8, 2024 with the board of the traditional samba school Unidos da Cachorra and with the visual artist and muralist José Victor. The acceptance and usability of the prototype were also tested quickly with the external public through interactivity surveys and polls published on the agency's official Instagram profile.

The close of the semester's extension actions was crowned on November 13, 2024, when all the methodological documentation, the brand manual and the interactive prototype of the application were exhibited to the general public during the official activities of the Unifanor Experience event, with the active and festive participation of the partner artistic collectives that took part in the scientific construction of the project.

5 Results and Discussion

The consolidation of a strategic design project applicable to the management of urban data and cultural connections necessarily involves structuring a solid, standardized and technically rigorous brand identity. In the context of this project, the construction of the Visual Identity Manual of the "Designar" brand represented the culmination of the analytical effort of the Experimental Design Agency, transforming abstract premises about Complex Adaptive Systems and spatial attractors into visual codes that are intelligible and perfectly applicable to digital and printed media. The foundation of this manual required deep immersion in contemporary scientific literature on brand management and design semiotics.

As Cecilia Consolo aptly explains in her classic work “Marcas: design estratégico. Do símbolo à gestão da identidade corporativa” (“Brands: strategic design. From the symbol to the management of corporate identity”), the act of creating a brand goes far beyond the mere production of a pleasant or ornamental icon. The brand acts as the definitive visual materialization of the essence, values, conduct and long-term strategy of an organization or initiative before society. It is the visible sign that organizes public perception and translates complex concepts into immediate messages of high symbolic load. Complementing this structuralist view, Marcos Hiller, in his book “Branding: a arte de construir marcas” (“Branding: the art of building brands”), postulates that branding is characterized as a continuous and holistic process of managing perceptions, whose main objective is to ensure that every point of contact between the brand and its target audience carries a coherent, authentic experience endowed with emotional value. In turn, Alina Wheeler, in her celebrated “Design de identidade de marca: guia essencial para toda a equipe de gestão de marcas” (“Designing Brand Identity: an essential guide for the whole branding team”), stresses the vital importance of the normative manual as the indispensable regulatory technical instrument for safeguarding the integrity and consistency of the brand over time.

The identity manual works as a safe harbor that prevents the visual disfigurement of the brand under the inevitable pressures of different media and graphic reproduction teams, ensuring that the original semantic value designed endures unchanged and efficient in the consumer's mind.

5.1 Brand Manual: Presentation

The Designar brand was born with the explicit purpose of establishing itself as the definitive link between cutting-edge design, local artistic manifestations and the changing morphology of Fortaleza's historic center.

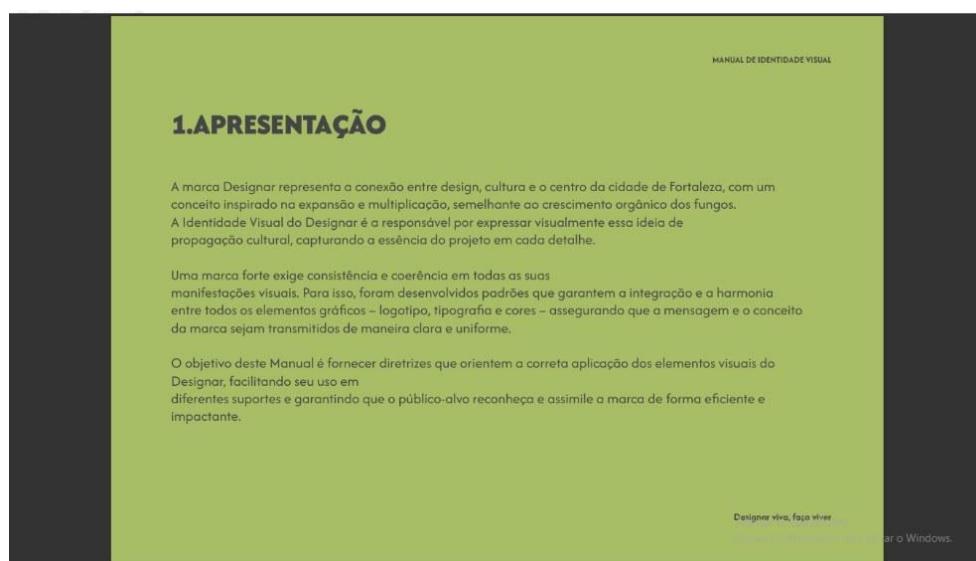
The central concept guiding its graphic manifestation is anchored in the idea of rhizomatic expansion, territorial decentralization and continuous multiplication, establishing a direct morphological analogy with the organic and intelligent proliferation of the fungal colonies explored in the biological foundation of this research.

The visual identity of the Designar ecosystem takes on the role of giving materiality and visibility to this ideal of positive cultural contamination, ensuring that the living and pulsing spirit of the project echoes in every graphic element that makes up the application's interface.

Building a robust and unforgettable visual signature demands uncompromising respect for the norms of harmony, balance and formal pregnancy.

To this end, the Experimental Design Agency structured a set of operational guidelines that unify the logo, the color system and the institutional typography, offering a clear guide that simplifies the correct use of visual elements across various digital and printed communication media, facilitating quick recognition and assimilation by the whole community.

Figure 12 – Brand Manual - Presentation



Source: Author's personal archive (2024).

5.2 Brand Manual: Name

Choosing a brand's name is one of the most critical decisions in the process of positioning and branding, since the phonetic term must carry within itself the narrative synthesis of the project. The verb DESIGNAR, in its original semantic sense in the Portuguese language, carries the intrinsic meanings of “to assign”, “to indicate”, “to specify”, “to name” or “to allocate” something or someone toward a clearly delimited purpose or function.

By establishing a parallel with the scientific bases of the master's dissertation “Viva e Faça Viver”, the theoretical correlation proves perfect and inseparable. Within an urban Complex Adaptive System, reversing the abandonment and degradation of a historic area depends on introducing organizational vectors that order informational chaos and direct the flows of people. The application therefore fulfills exactly the function of “designar”: it assigns to artistic collectives and local independent artists the noble and vital role of energy providers and urban attractors; it indicates to the consuming public and the city's inhabitants the exact geographic location and the times at which culture is germinating in public spaces; and it allocates to the underused cultural facilities of the center a new agenda of community occupation. The name Designar thus works as a verbal and conceptual manifesto that synthesizes the union between the intelligence of interface design and the recovery of the vitality of Fortaleza's territory.

Figure 13 – Brand Manual - Name



Source: Author's personal archive (2024).

5.3 Brand Manual: Arrow Symbol

Integrated into the geometric morphology of the Designar logo, the “Directional Arrow” symbol takes on the role of a semiotic element of spatial orientation and vectoring of movement.

The arrow is a universal sign of clear and dynamic indication, instantly and intuitively communicating the ideas of displacement, progression and heading toward a defined destination.

In the context of urban revitalization theories applied to downtown Fortaleza, this symbol fulfills a conceptual role of extreme technical relevance. To break the chronic isolation that affects the major cultural facilities during nighttime periods and weekends, the digital interface needs to act as an element that induces human flows.

The arrow graphically embodies the processing intelligence of cultural Big Data: it represents the platform's managerial algorithms calculating optimal routes of community engagement, converting abstract data into real directional arrows that guide citizens from the most diverse regions of the metropolis toward the squares, theaters and alleys of the historic center, boosting collective circulation and combating the inertia that favors urban degradation.

Figure 14 – Brand Manual - Arrow Symbol



Source: Author's personal archive (2024).

5.4 Brand Manual: Mosaic Symbol

The second fundamental semiotic component that gives personality to the Designar symbol is the standardization of the graphic pattern in MOSAIC format. This design resource acts as a direct historical recovery and an intentional homage to the very rich handcrafted, architectural and visual tradition that characterizes the popular culture of the Northeast Region and, specifically, the urban landscapes of Fortaleza.

From the standpoint of the visual arts and aesthetic reading, the mosaic is a millennia-old form of artistic expression whose beauty lies in the fact that isolated, small, multifaceted and apparently disconnected fragments of ceramic, glass or stone are able to give life to a unique, monumental, complex work of very high aesthetic value when gathered and ordered under a coherent structural logic.

In the history of Brazilian visual arts, great masters of modernism and urban art used mosaics and tilework as tools for integrating architecture and national identity, giving concrete surfaces the warmth of the organic line and the chromatic plurality of popular culture. In contemporary Fortaleza, the mosaic survives on historic façades, urban art interventions and traditional handicrafts, communicating concepts of resistance, manual skill and cultural diversity.

In transposing this artistic reference to the scientific premises of the master's research and of cultural data management, the visual metaphor of the mosaic reveals its true analytical power. Within the logic of Complex Adaptive Systems (CAS), each individual polygon that makes up the graphic mesh of the Designar mosaic represents a unitary and essential element of Fortaleza's urban ecosystem: a solitary street artist, an independent dance collective on the outskirts, a small band playing original music, a spectator in search of leisure or a public theater in the center. Isolated in the vast fabric of the metropolis, these agents resemble fragmented pieces of a mosaic that has not yet been assembled, facing chronic difficulties of visibility, financial sustainability and collective articulation. The moment the managerial application unifies these fragments through data technology, the isolated pieces fit together perfectly, structuring a cohesive, vibrant and resilient network of cultural connections.

The mosaic, therefore, humanizes the coldness of Big Data, showing that technology can adapt perfectly to the fragmented and singular reading of each artistic manifestation,

celebrating the plurality of Fortaleza's cultural scene without negating the particularities of its pulsing cells.

Figure 15 – Brand Manual - Mosaic Symbol



Source: Author's personal archive (2024).

Figure 16 – Brand Manual - Symbol



Source: Author's personal archive (2024).

5.5 Brand Manual: Colors

The structuring of the Designar brand's institutional color system strictly followed the scientific postulates of Color Theory and the psychology of visual perception, establishing a direct link with the conceptual narratives developed throughout the master's dissertation. The palette consists of three main, perfectly standardized colors:

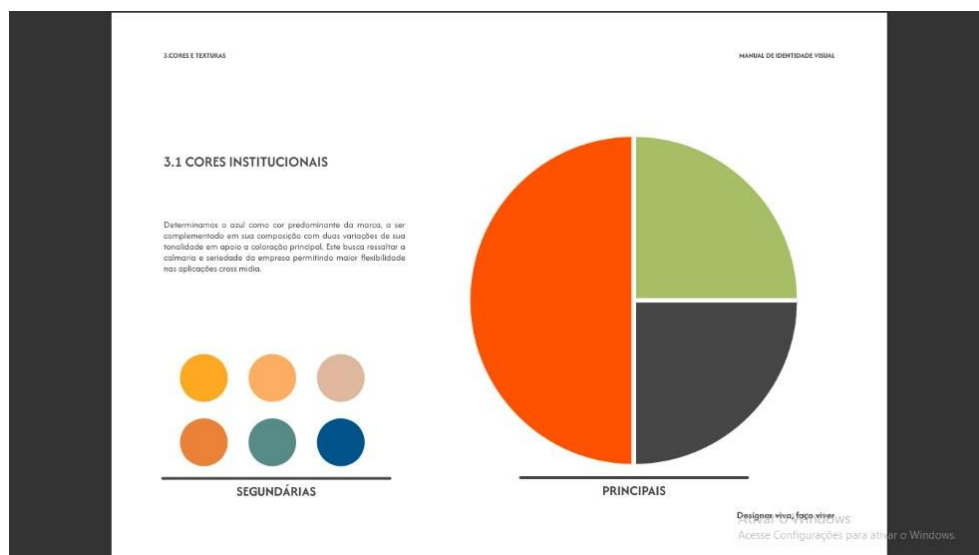
- Vital Orange: Identified by the technical codes HEX: #EA5D11, RGB: 234, 93, 17, CMYK: 1, 74, 99, 0 and PANTONE: 1583C.
- Germination Green: Identified by the technical codes HEX: #ABBE64, RGB: 171, 190, 100, CMYK: 17, 11, 90, 10 and PANTONE: 292CP.

- Concrete Gray: Identified by the technical codes HEX: #484747, RGB: 72, 71, 71, CMYK: 63, 54, 51, 52 and PANTONE: 425C.

The theoretical foundation for this color distribution rests on the need to express visually the clash and synergy between the built urban environment and the living forces that inhabit it. Concrete Gray acts as the neutral, sober and structural foundation of the interface's entire graphic system. It immediately evokes the physical materiality of downtown Fortaleza: the asphalt surfaces, the concrete of historic buildings and the rigidity of the engineered layout of an area that, when devoid of people, becomes cold, inhospitable and static. To counterbalance this mineral rigidity and promote the symbolic revitalization of the space, the manual introduces Germination Green, whose tone refers directly to the organic and biological character that permeates the master's research. Green represents the living urban organism in search of nourishment and growth; it evokes the adaptive and cellular expansion inspired by the slime mold, symbolizing the potential for renewal spreading radially across the territory.

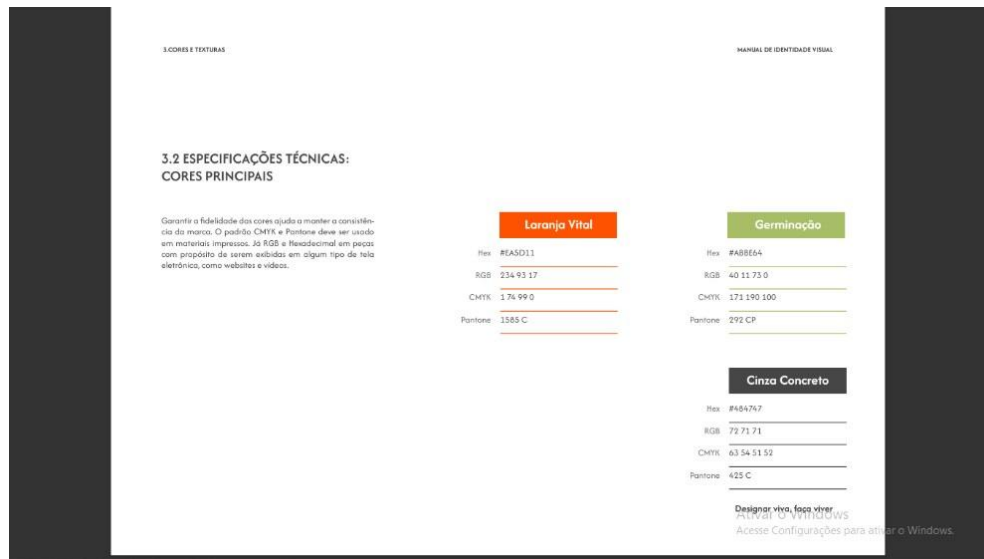
Finally, Vital Orange crowns the color system, acting as the vector of pure energy, enthusiasm and human warmth. Orange stimulates action, sociability and creativity, serving as the definitive visual representation of the artistic movements and independent collective movements that bring the cultural effervescence typical of the Northeast to the public space. In the visual scale designed for the application's screens, a methodological rule of application was determined in which Vital Orange and Germination Green must exert a clear visual and hierarchical dominance over the masses of Concrete Gray. This chromatic hierarchy conveys an immediate message to the user's brain: the pulsing life of citizens and the organicity of artistic manifestations stand out, occupy and reconfigure the gray, dormant base of traditional urban infrastructure, visually fulfilling the commandment to occupy the center in order to keep it alive.

Figure 17 – Brand Manual - Institutional Colors



Source: Author's personal archive (2024).

Figure 18 – Brand Manual - Main Colors



Source: Author's personal archive (2024).

5.6 Brand Manual: Typography

In interface design and brand communication, typography plays the fundamental role of giving voice, rhythm and textual personality to the messages issued by the platform. As Bernhard E. Bürdek prescribes in his reference work “Design: História, Teoria e Prática do Design de produtos” (“Design: History, Theory and Practice of Product Design”), the typographic and formal choices of a project go beyond the mere utilitarian dimension of legibility, becoming part of a complex network of functions of signification and sociocultural communication that activate archetypes and deep psychological perceptions in the observer. Maintaining a rigid and consistent typographic standard helps strengthen the brand's pregnance in the target audience's long-term memory, lending professionalism to the interface.

The typographic structure of the Designar brand relied on careful curation that selected two complementary families available in the Google Fonts library, ensuring full technical stability of rendering in the application's programming code. To guide the student monitors during the graphic creation process, the manual incorporated the classic lessons on the morphology and nature of the letter written by Gerrit Noordzij in his book “The Stroke: Theory of Writing”:

The initial, primary, fundamental form is the simple course of the tool. Only handwriting preserves the characteristics of a single stroke. Handwriting is writing done with a single stroke. In lettering, the forms are more malleable than in handwriting, since they allow retouching of the outline that can gradually improve (or harm) the quality of the forms. Lettering is independent of the tool that conceived it, but this freedom exists only at the expense of the character: in writing composed of overlapping strokes, the forms created from a single stroke are lost like erased footprints on a trail (NOORDZIJ, 2005).

This deep understanding of the anatomy and malleability of the stroke served to ground the necessary distinction between the rigidity required by a digital reading system and the free expressiveness of the artistic manifestations on Fortaleza's streets. In addition, the manual adopts the sensitive and precise conceptual perspective defended by the renowned designer and type artist Martina Flor in her book “The Golden Secrets of

Lettering”, in which she states that the Western alphabet is, at once, the designer's raw material and great limitation, turning the basic structure of letters into a true field of visual experimentation whose non-negotiable ultimate goal is to make the reader able to decode the message efficiently at the end of the reading path.

5.6.1 Typeface Family for Headings - STAATLICHES REGULAR

The main typeface chosen to take on the hierarchy of headings, campaign signatures and the project's logotype was Staatliches Regular. It is a sharply geometric typeface with condensed proportions and only one structural weight in its family. According to the technical analyses of Kate Clair and Cynthia Busic-Snyder in the renowned “Manual de Tipografia: A História, a Técnica e a Arte” (“Typography Manual: History, Technique and Art”), typefaces built on rigid geometric parameters and with limited weights convey sensations of solidity, contemporaneity, institutional strength and industrial precision. Staatliches evokes the analytical, technological and structural archetype of the application, working as the highly pregnant visual anchor that fixes the brand in users' memory thanks to its strong graphic impact in capital letters.

5.6.2 Typeface Family for Body Text - AFACAD FLUX

To meet the demands of running body text, captions, informational texts and microcopy in the mobile interfaces, the choice fell on the Afacad Flux family. This typeface has a geometric design with softly rounded terminals and offers a wide hierarchical range of eighteen distinct weights, from the thinnest (Thin) to the densest and most robust (Bold). Joaquim Fonseca, in his treatise “Tipografia & Design gráfico: Design e Produção de Impressos” (“Typography & Graphic Design: Design and Production of Printed Matter”), stresses that an interface design project with high informational complexity needs typeface families generous in weights to allow the correct organization of visual hierarchy on the screen without causing visual fatigue for the reader. Afacad Flux's friendly design and high legibility at small sizes perfectly fulfill this technical function, welcoming the user with comfort and informational clarity.

During the workshops and dynamics held at the experimental agency, especially in the ENADE lettering action aimed at undergraduate students, the methodological discussions were illuminated by the famous maxims of Jessica Hische in her book “In Progress”, helping to clarify the limits of action of each professional in the graphic field:

The world of letter creation can be broken into a few categories: calligraphers, lettering artists, and type designers. Calligraphers and lettering artists create custom work, while type designers create systems of letters. Some calligraphers are very inventive, but, generally, they choose a few styles to master so that, when hired to produce two hundred wedding envelopes, muscle memory takes over. Calligraphers write words; lettering artists draw them (HISCHE, 2015).

Appropriating these classic definitions allowed the monitors to understand that, while the Designar platform provides the stable engineering of “systems of letters” (through the standardized Staatliches and Afacad typefaces), independent artists and local collectives inject their inventiveness by drawing their own “letterings” and cultural posters, generating a rich, dialogical visual ecosystem perfectly balanced between the precision of technology and the freedom of street art.

Figure 19 – Brand Manual - Typography



Source: Author's personal archive (2024).

5.7 Brand Manual: Logo

The geometric signature of the Designar logo was designed under strict criteria of application flexibility, anticipating the needs of a contemporary multiplatform market in which brands must behave responsively.

5.7.1 Structural Versions

To ensure full physical adaptability of the signature, the manual stipulates three official layout variations.

The Horizontal 01 version is the preferred signature, mandatory for most media, offering a perfect balance between the symbol and the lettering.

The Horizontal 02 version was optimized for specific placements in narrow navigation bars and digital headers.

Finally, the Square or compact version was developed with an exclusive focus on social media avatars, app icons installed on the phone screen (favicons) and small institutional giveaways.

5.7.2 Positive and Negative

Respect for the institutional color scheme is the default rule for protecting the symbolic value of the project.

However, aware that reproduction media may impose severe cost or technology restrictions, such as black-and-white printing of official documents, stamps or laser engraving, the manual standardizes the positive version (logo reproduced entirely in black on a white background) and the negative version (logo reproduced entirely in white on a black or dark background), ensuring that the silhouette of the arrow and the mosaic remains legible.

5.7.3 Application on Backgrounds

Preserving the brand's visual integrity requires strong chromatic contrast between the logo and the background surface.

The manual's guidelines strictly forbid placing the colored logo on backgrounds with a low contrast index or on excessively cluttered and noisy photographic images that interfere visually with reading the outlines of the letters.

In these complex cases of busy background media, the mandatory use of monochrome negative versions or the application of a neutral protective mask is determined, to safeguard the pregnancy and the respect for the visual signature of the ecosystem.

Figure 20 – Brand Manual - Logo Versions



Source: Author's personal archive (2024).

Figure 21 – Brand Manual - Logo Positive and Negative



Source: Author's personal archive (2024).

Figure 22 – Brand Manual - Logo Application on Backgrounds



Source: Author's personal archive (2024).

Figure 23 – Brand Manual - Application and usage suggestion - T-shirts



Source: Author's personal archive (2024).

Figure 24 – Brand Manual - Application and usage suggestion - Stickers



Source: Author's personal archive (2024).

Figure 25 – Brand Manual - Application and usage suggestion - Street art



Source: Author's personal archive (2024).

As a fundamental outgrowth of the discussion and results stage, the technological materialization of the theoretical guidelines of urban revitalization and Complex Adaptive Systems (CAS) was consolidated through the development of the User Experience (UX) Design and User Interface (UI) Design project. This practical stage was made feasible and carried out entirely within the Figma platform, a market-leading tool in the digital product industry, chosen for its ability to allow the creation of dynamic components, usability testing and high-fidelity prototyping in real time. The development and technical governance of this digital environment were led by the student monitors Yasmin Nogueira Ono and Noeme Stefany dos Reis Paulino, who demonstrated full command of the platform. The student Yasmin Nogueira Ono took the lead in the practical architecture of Figma, taking charge of transcribing the methodological guidelines and problem scenarios provided by the project coordinator into navigable screen flows, rigorously applying the visual identity developed in the brand manual.

The backbone of the user experience was structured from the diagnoses made at the level of this author's master's dissertation. The imperative need was identified to establish an authentication and sign-in (login) mechanism on the platform that would offer a high level of credibility and security but, at the same time, would operate as the master key for feeding a Big Data ecosystem. From the perspective of the science of cities and the management of complex networks, it was determined that the primary access method for the end-consumer profile would necessarily be the Individual Taxpayer Registry (CPF).

This software and database engineering choice enables interoperability and direct connection of the platform with the channels, municipal databases and public bodies of Fortaleza. Using the CPF opens the way for intelligent large-scale cross-referencing of data with integrated mobility and urban infrastructure systems, such as the Bilhete Único for public transport, the shared bicycle system (Bicicletar), electric scooters, ride-hailing networks (such as Uber), geolocation and urban traffic tools (Google Maps and Waze), as well as the main ticketing companies and virtual box-office platforms operating in public and independent cultural facilities. For profiles aimed at providers of artistic services (Artists) and physical infrastructure (Cultural Facilities), the system provides for authentication through the National Registry of Legal Entities (CNPJ).

Centralizing registration via CPF and CNPJ turns the DESIGNAR interface into a powerful urban sensor capable of tracking, quantifying and qualifying the decision criteria adopted by the population before, during and after the act of occupying the city center and consuming artistic expressions. Processing these voluminous data (Big Data) makes it possible to map with surgical precision both the critical points of abandonment of the space and the success vectors of cultural interventions. The system was designed to elucidate the following crucial metric variables for adaptive urban planning:

- Consumption and Anticipation Patterns: Identify whether the user bought a ticket in advance or only on the day of the event, and track whether the purchase was made individually or as a combo of multiple tickets for different attractors.
- Logistics and Transport Modes: Monitor which transport modes (bus, subway, car, bicycle or walking) were chosen to travel to the center, measuring how far in advance the citizen needed to set out to reach the cultural facility on time.
- Geography of Human Migration: Map the geographic origin of the consuming public within the metropolitan territory, distinguishing whether the flow of visitors is strictly local (adjacent neighborhoods), regional or made up of floating flows of tourists.
- Simultaneous Traffic Density: Quantify the volume of citizens moving simultaneously toward the same urban facility and track the most predominant road routes.
- Expansion of Cultural Axes: Evaluate, based on the highest-flow routes mapped by the system, the feasibility of expanding street art actions and performances along these connecting axes from the periphery to the center, generating new fronts of work for other independent artists.
- Chaining and Sequencing of Occupation: Find out whether users tend to consume only an isolated show or engage in a sequence of cultural activities in different artistic languages at geographically close facilities within the historic center.

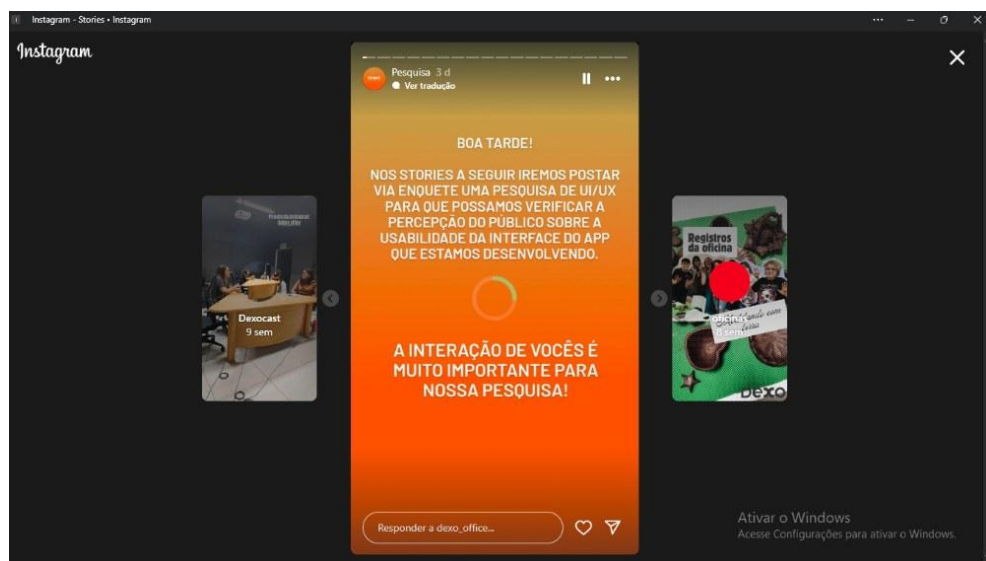
To support this data engine and ensure that the user journey is fluid and intuitive, the experimental agency's team designed in detail the application's screen flow, structured textually from the following interaction stages:

1. Loading Screen (Splash Screen - Phase 01): Presents the interface to the user in its initial startup phase through a fluid animation containing a synchronous loading circle, signaling the application's internal data processing.
2. Loading Screen (Splash Screen - Phase 02): Displays the completion of the technical startup process through the gradual and impactful appearance of the platform's full logo: DESIGNAR, LIVE AND MAKE LIVE.
3. Welcome and Onboarding Screen (Onboarding 01): Introduces the user to the platform environment with the institutional welcome message "Welcome all" placed at the top of the screen. At the center, the official logo stands out, showing the Directional Arrow built in Mosaic. In the lower portion, the text contextualizes the system's purpose: "Explore the cultural heart of Fortaleza! Designar is your guide to discovering events, exhibitions, shows and artistic spaces, all in one place. Get ready to connect with art and culture in a unique and engaging way." Below this block of text there are two action buttons: the "START" command, applied in blue to create an intentional chromatic contrast with the orange background of the visual identity and attract the click, and the "SKIP" command, formatted in white with reduced contrast to signal the option of advancing directly without going through the instructional tutorial.
4. Feature Presentation Screen (Onboarding 02): Displays at the top the all-caps headline "EXPLORE THE CULTURAL MAP! Find events and cultural points near you.", complemented in the lower portion by the explanatory text: "Designar connects you to the most vibrant cultural events and spaces in the city, with a unique proposal for expanding local culture. Explore, take part and feel Fortaleza in a new and creative way!"
5. Feature Presentation Screen (Onboarding 03): Presents in the upper area the title "Personalize your journey! Save your favorite events and create your own cultural diary!", bringing at the bottom of the screen the functional guidelines: "Add events to your diary and take notes about your visits. You can also set reminders so you don't forget any spatial experience."
6. Feature Presentation Screen (Onboarding 04): Highlights at the top the engagement-focused message "SHARE AND INTERACT! Interact with other cultural explorers!", supported at the bottom by the instructional text: "Share your discoveries and recommendations with friends and other users, commenting on the events you visited. Build a cultural network and get inspired by others' experiences."
7. Feature Presentation Screen (Onboarding 05): Closes the introduction cycle with the top command "Ready to connect with Fortaleza's culture? Sign in and start exploring!", displaying in the lower corner the closing of the flow: "With just a few clicks, you can start your journey and explore the best of the city's cultural scene."
8. Gateway Screen: Clears the excess of graphic information and displays at the center the welcoming message "Welcome". In the lower portion of the interface, two buttons structured vertically, one above the other, are centered, containing the primary flow options: "Sign in" (for returning users) and "Sign up" (for new registrations).
9. Registration Profile Selection Screen: Directs the experience toward database personalization, displaying at the top the guiding question in capital letters "HOW WOULD YOU LIKE TO CONNECT TO DESIGNAR? Select your option for a personalized experience!". Three centered buttons are arranged in a vertical stack to segment the type of attractor in the urban complex system: 01. "I am a user", 02. "I am an artist" and 03. "I am a cultural facility".

10. Registration Form Screen: Presents the title “REGISTRATION” at the top and provides the mandatory fields for user validation, cleanly structured in text inputs: 01. User name, 02. CPF (or CNPJ, depending on the profile selected on the previous screen), 03. E-mail, 04. Phone and 05. Encrypted access password.
11. Privacy Policy and Terms of Use Screen: Displays the legal and regulatory information-security guidelines in compliance with current data protection legislation, assuring citizens of governance and ethical handling of the collective information gathered for Big Data intelligence.
12. Main Screen (Home Screen): Sets up the application's central control and navigation panel after authentication. The screen presents a visual architecture divided into scrollable horizontal sections containing: a featured list of cultural events happening right now (real time); a geospatialized listing of open cultural facilities in the center; and a showcase listing the artists and collectives registered on the platform. At the bottom of the interface, the bottom navigation bar (Tab Bar) is permanently fixed, made up of five icons for quick access to the modules of the adaptive system: 01. Home (Start Panel), 02. Map (Geolocation and Routes Interface), 03. Agenda (Calendar and Cultural Diary), 04. Saved (Favorited Events and Attractors) and 05. People (Social Network of Contacts and Interactions among Cultural Explorers).

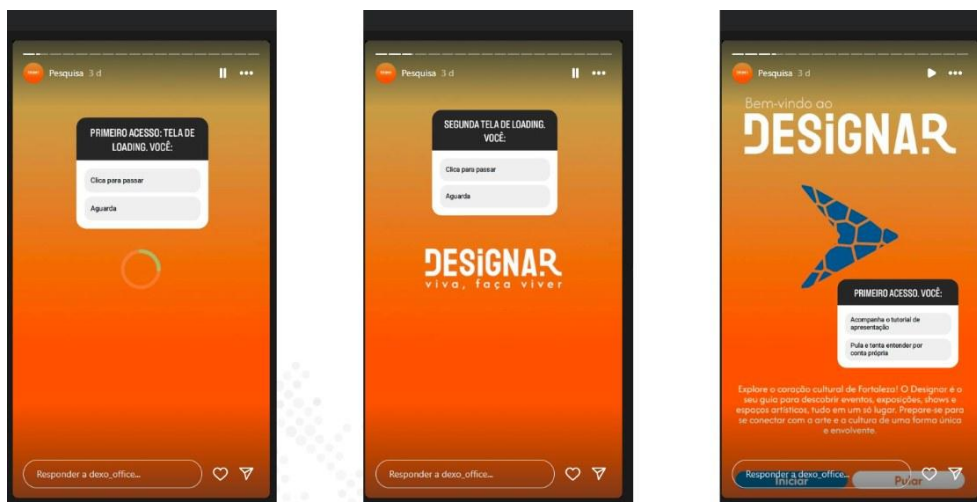
The consolidation of this ecosystem of screens and navigation flows allows the platform to act as the operational center of the urban organism. By capturing the aggregated data generated by these twelve fundamental screens, the application provides public managers and researchers with the analytical inputs needed to coordinate the self-organization dynamics of downtown Fortaleza. Data management of this intelligent network acts directly on the activation of cultural attractors, feeding the system with continuous human flows and ensuring that the central urban organism remains perfectly monitored, adaptive and systemically alive.

Figure 26 – UX Design - Usability - Campaign



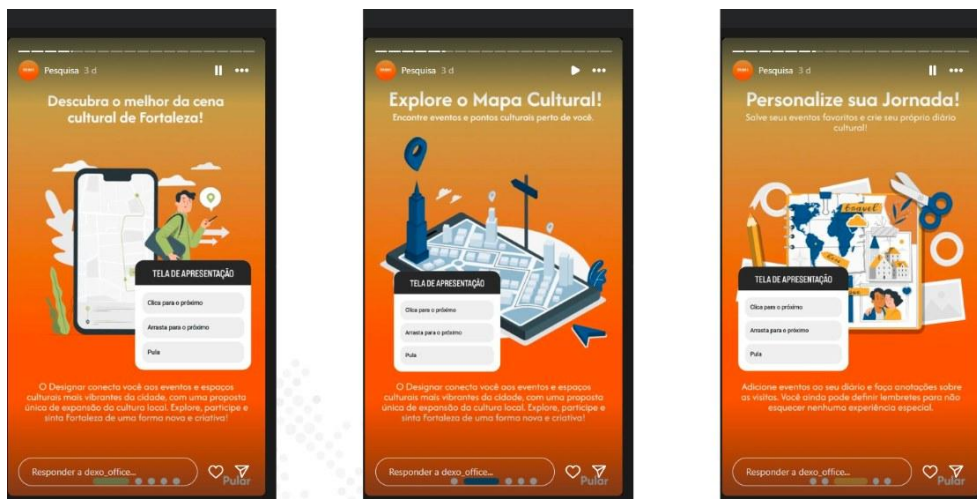
Source: Author's personal archive (2024).

Figure 27 – UX Design - Usability - Welcome 01



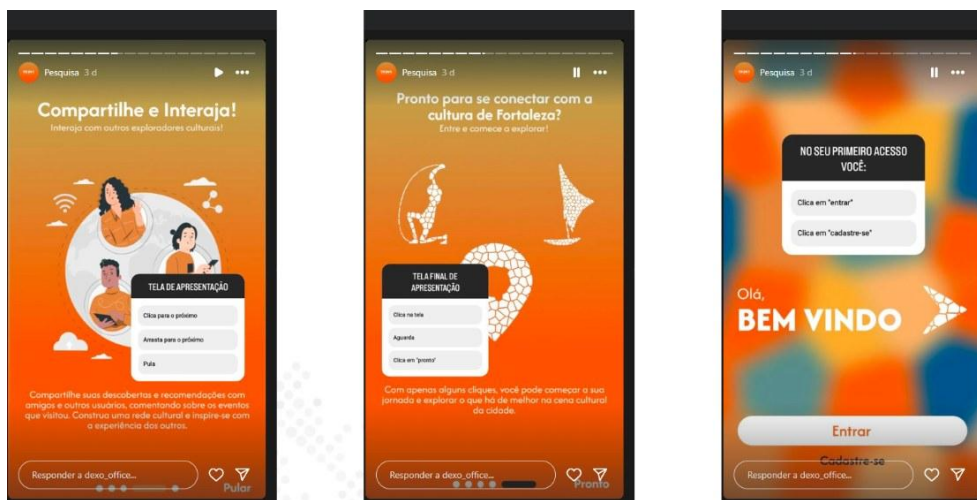
Source: Author's personal archive (2024).

Figure 28 – UX Design - Usability - Welcome 02



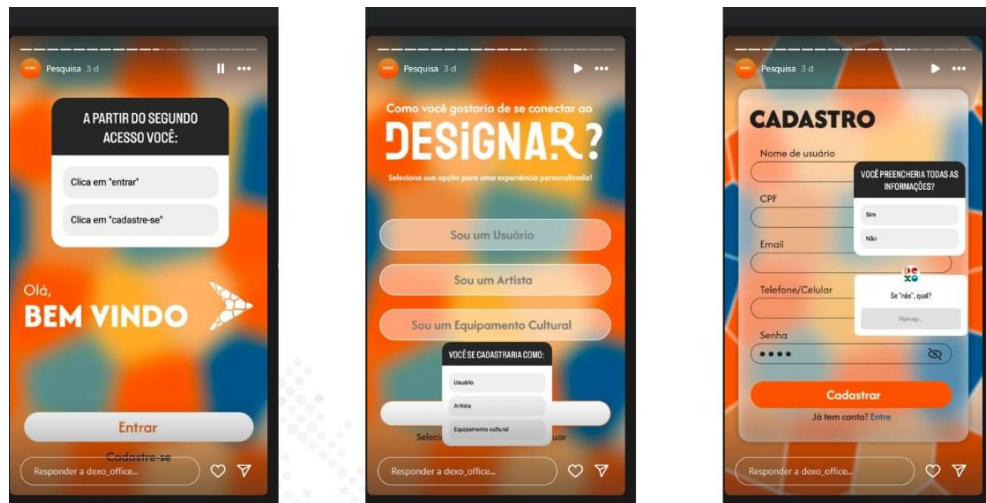
Source: Author's personal archive (2024).

Figure 29 – UX Design - Usability - Welcome 03



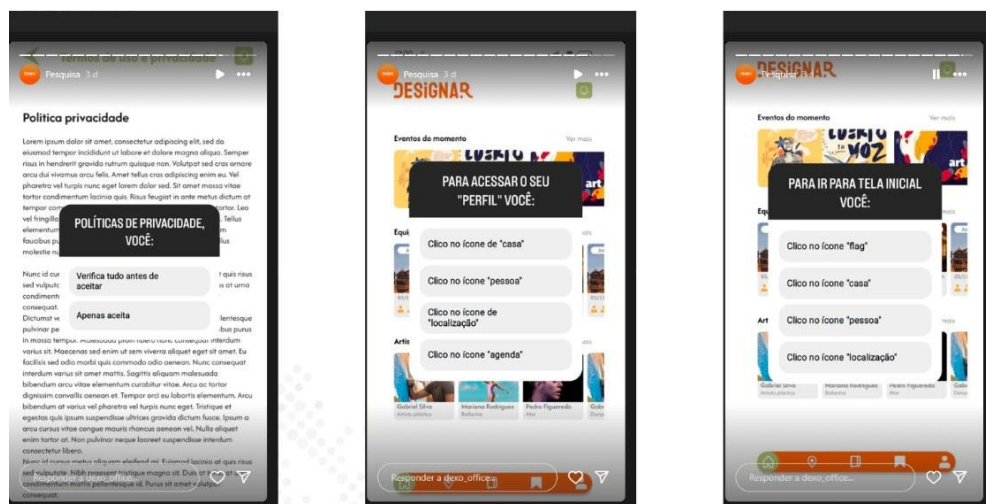
Source: Author's personal archive (2024).

Figure 30 – UX Design - Usability - Registration



Source: Author's personal archive (2024).

Figure 31 – UX Design - Usability - Home



Source: Author's personal archive (2024).

6 Conclusion

The experience lived unequivocally corroborates the relevance of university extension as a mechanism of social and pedagogical transformation. By taking the Unifanor Wyden University Center beyond its walls into the daily life of the Sandbox International School, the premise was validated that the architectural design methodology is not an exclusive prerogative of higher technical education but a universal instrument of critical thinking and structuring of the world. As Gildo Montenegro (1978) explains, creativity is a faculty that can be systematized. The success of the intervention lay precisely in the mediators' ability to demystify “architectural making”, leading elementary school students through logical stages of abstraction, analysis and synthesis. By going through the complete cycle — from the briefing to three-dimensional prototyping, including the practical studio experience on campus —, the students moved from school passivity to design protagonism. The project was not just the delivery of a functional classroom; it was the formation of individuals able to observe their

surroundings, identify flaws and propose solutions based on the scientific method and on ergonomic sensitivity.

The relevance of this research extends beyond the built architectural object. It redefines the role of the contemporary architect in the interface with childhood. From the results obtained, it is concluded that school architecture must be conceived as a participatory process, in which the child is not merely a user but a legitimate co-creator. Overcoming conflicts, such as the debate over lockers, proved that active listening and technical mediation are capable of raising the child's awareness of their own social role, replacing superficial wishes with sustainable and structured needs.

Moreover, the involvement of the students in the Architecture Club and their experience at EMAU as digital fabrication hubs show that the future of the profession is intrinsically linked to the capacity for interdisciplinary dialogue. The future architects trained at UniFanor Wyden emerge from this experience with a renewed vision: they understood that technical excellence is only complete when it meets human subjectivity and that the successful architect is, above all, an interpreter of the social and psychological conditions of others.

Finally, this report opens precedents for future investigations on the pedagogy of space. It is proposed that the methodology applied — based on regular meetings, agile prototyping and academic immersion — be institutionalized as a reference model for other extension actions. The legacy of this research transcends the physical renovation of the classroom: it lies in the seed of constructive autonomy planted in the children and in the civic and professional awareness consolidated in the students. The architectural project, therefore, proved in this experience to be what it should really be: a constant exercise in citizenship, invention and, above all, an act of deep human empathy.

The closing of the extension activities carried out at the Experimental Design Agency of the Unifanor Wyden University Center during the second academic semester of 2024 demonstrated, beyond any doubt, the immense social and scientific relevance of integrating graduate academic research into the laboratory dynamics of the undergraduate program. The successful transposition of the complex theoretical concepts formulated in the master's dissertation in City Sciences to the practical universe of User Experience and Interface Design (UX/UI) proved that strategic design acts as a powerful tool of socio-spatial mediation, capable of decoding and organizing the complex demands of a metropolis such as Fortaleza.

The conception and prototyping of the Designar application, supported by the creation of a rigorous Visual Identity Manual grounded in semiotics and in local culture, fulfill the greater objective of offering a technological and human response to the chronic problem of emptying and degradation that affects Fortaleza's historic center outside business hours. By transforming independent artistic collectives into recognized attractors integrated into an intelligent data network, the project validated the ecological and urban premise that continuous human occupation and cultural promotion are the fundamental metabolic inputs for keeping city centers systemically alive and resilient. Beyond the technological product generated, the project leaves an invaluable pedagogical legacy for the student monitors involved, qualifying them through the lens of social responsibility and scientific inquiry, while consolidating a mature, empirical and methodologically validated doctoral pre-project through direct dialogue between academia and society.

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Contribuição: *Investigação, escrita e desenvolvimento do texto.*

Submitted on: 15.06.2026

Approved on: 11.10.2026

Published on: 12.10.2026

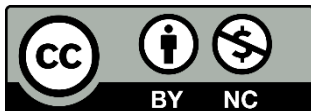
DOI: 10.5281/zenodo.23325236

Funding:

How to cite this work:

BARBOSA, Petrus Moura. Designar: Live and Make Live — Adaptive Strategies for Urban Revitalization through Interface Design and University Extension Actions. **Duna: Revista Multidisciplinar de Inovação e Práticas de Ensino**, Fortaleza, v. 2, n. 2, p. 40–75, abr./jun. 2026. DOI: 10.5281/zenodo.23325236. (ABNT)

Barbosa, P. M. (2026). Designar: Live and Make Live — Adaptive Strategies for Urban Revitalization through Interface Design and University Extension Actions. *Duna: Revista Multidisciplinar de Inovação e Práticas de Ensino*, 2(2), 40–75. <https://doi.org/10.5281/zenodo.23325236> (APA)



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