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Contents

Presentation of the Special Issue

Cultural Innovation in the Basque Country: A Polyhedral View

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1. INNOKLab as a cultural innovation laboratory

The Special Issue entitled "Cultural innovation in the Basque Country: A polyhedral perspective" brings together 6 articles written by members of the research group of the University of the Basque Country (UPV/EHU) "INNOkLab: Laboratory of Cultural Innovation". The articles are, precisely, the result of a reflexive process to delimit a complex but extraordinarily suggestive field of study such as cultural innovation, from an epistemological perspective that understands cultural evolution and cultural change as a constitutive part of the most dynamic socio-technical systems of the present. It is, therefore, a collective effort that attends to the links between innovation and culture from the consideration that the associations and connections that make innovation processes possible are also the result of the transformation of daily routines, identities, symbolic interpretations and emotional repertoires of the actors involved.

Cultural innovation is the least studied dimension by the various disciplines and perspectives that converge in the heterogeneous field of innovation studies. Those studies have paid secondary or subsidiary attention to the cultural dimensions involved in innovation processes, since their main purpose has been the technical explanation of it, preferably in its most tangible and material facet. Even in those research in which cultural factors have been highlighted as levers of innovation processes (Hofstede, 1980; Hofstede, Hofstede & Minkov, 1991), simplified and partial causal relationships have been established between culture and innovation. The main argument is that the capacities and possibilities of innovation would increase as national or organizational cultures adopt modern, dynamic and change-oriented characteristics. Tactical power is given to culture as driver of technological and business innovation and, consequently, it must be managed within a general mechanic of technological, economic and organizational change.

Certainly, the analysis of the links between innovation and culture is not exempt from theoretical and empirical difficulties. The first hurdle is the existence of different theoretical perspectives that deal with this link with different objectives and approaches or even using an unequal definition of both the concept of innovation and the concept of culture itself. Broadly speaking, three main areas of work can be distinguished, focused on the connections between innovation and culture. The first two initially followed parallel paths, while the third proposed to study the intermediate space between the first two perspectives in order to understand the growing cultural relevance of innovation and creativity in contemporary societies.

1. The first group consist of studies on culture of innovation or innovative cultures. In the context of the development of "science societies" –as opposed to "culture societies"–

(Lamo de Espinosa, 1996), completely oriented towards technological progress and innovation, multiple analyses have been carried out in order to assess the innovation level of both countries, territories and cities, as well as companies or organisations. Such analyses have focused their efforts on attending to the way in which the national, regional, local or organizational culture drives or limits innovation (Schein, 1992; Saxenian, 1994; Landry, 2000; Himanen, 2001; Florida, 2002). These studies place culture –preferably cosmopolitan and urban culture– as an explanatory variable of technological innovation capabilities and territorial development. They understanding it as an area that can be managed within organizations so that it contributes to intensification of innovation and technological change. For such perspectives, the cultural codes shared by social groups are understood as resources or nutrients that feed innovation, mainly in its most scientific-technological facet.

2. The second group of the main areas of work is dedicated to the study of innovation in the cultural field. The Schumpeterian perspective of innovation, which has been dominant in studies on the subject for several decades, did not pay any special attention to the innovative dynamics present in the cultural sphere, nor did it contemplate cultural industries and creative activities as spaces for innovation. The first studies that highlighted the relevance of artistic and cultural knowledge as the axis of disruptive thinking and as levers for the generation of new ideas and proposals were carried out from the cultural economy approach and the research about the sources of innovation (Leadbeater & Oakley, 1999). The dynamism and adaptability of the cultural sphere in the new economy, that remained hidden for innovation studies until then (Miles & Green, 2008), aroused widespread interest from the year 2000 onwards (Howkings, 2001). Likewise, the work formulas used in the creative field were highlighted for their effectiveness and transformative capacity, to the point that they had to be imitated and transferred to the technological field (Brown, 2009). This produced a substantial change in cultural policies that were reconverted into innovation policies applied to culture (YProductions, 2008), promoting a new economic sector –the cultural and creative industries (CCI)– that expands the traditional perimeter of the cultural sphere to include a new sort of creative activities and expressions (DCMS, 1998; Cunningham, 2002). Culture thus become a commodity (Brea, 2004; Comaroff & Comaroff, 2009), not only as original artistic work or global cultural objects, but as sophisticated and aestheticized innovative products and services that provide differenciation, economic value and emotional attachment (Lipovetsky & Serroy, 2013; Reckwitz, 2017).

3. The third field of work faces the intersections of the two main areas differentiated so far, focusing on the transversal dimension of social creativity. Within this third line of work, a double character is attributed to creativity. On the one hand, it is taken as a driving force for innovation, while, on the other hand, it is understood as the result of the accumulation of capacities, resources and motivations to innovate in any of the institutional areas in which it is deployed. Thus, the approaches that interpret innovation in culture as commodity and those that analyse the culture of innovation as a resource for organizational transformation and competitive advantage place the germ of the innovative pulse in human creativity and the quest for novelty, which must be captured to be converted into innovation (Wilson, 2018). For that reason, creativity has been glorified and praised to the point of placing it among the hegemonic social values of contemporary capitalism. It has been covered with a symbolic meaning of excellence that acts both as a "social expectation" (a dimension that is capable of generating highly productive results in those environments in which it is deployed), and as a "subjective preference" (the need to express oneself in creative terms that has spread to multiple activities and social fields) (Sanchez Capdequí, 2017). It stands out, therefore, that the logic of dynamic stabilization and acceleration of innovation in which modernity has

been installed pushes the modern subject to become more dynamic (Rosa, 2019). This third perspective, in short, highlights that the imperative to innovate expands as a cultural norm. All of this endowing itself with an instituting character of cognitive frameworks and hegemonic discourses with a high influence on policy makers.

The review of the three main areas refers us to relevant cultural mutations in innovation societies, either because culture is used as a resource, becomes a commodity within artistic capitalism, or new cultural norms are constituted that invoke the imperative of innovate. In any case, what such perspectives point out is that shared cultural codes are subject to constant alterations, adaptations, manipulations and controversies within technologically advanced societies.

2. The INNOKLab research program

In fact, the INNOKLab research program will pay special attention to these three dimensions of cultural innovation due to their transversal and performative nature. In short, we believe that the most effective way to remove the concept of culture from its obscurantism –that cognitive limit that prevents culture from overcoming its condition of hidden fetish to become an object of analysis– does not lie in taking refuge in the aesthetic, hermeneutic or ethnic study of the cultural fact, but rather it consists in opening cultural studies to the consideration of movement and transformation, once the field of culture is incorporated, with all its consequences, into innovation processes and spaces. This implies placing all the attention on the alterations, adaptations, instrumentalizations, tutelages, resistances and cultural controversies that emerge in the face of the acceleration of change and innovation.

To do this, INNOKLab is aligned with a set of theoretical and methodological approaches that we consider especially fruitful for the study of cultural innovation.

1. The "symmetrical anthropology" proposed by Bruno Latour (1991) that tries to overcome the separation between the natural and the social world or between the human and the non-human that is at the core of modern way of thinking. This approach indicates that the objects and artifacts, qualified by Latour as quasi-objects, have agency capacity because they are producers of nature and builders of subjects. The task of the researcher, therefore, is to follow the actors themselves (actants in Latour's language) in the new associations they establish to articulate their activity.

2. Objects as carriers of tradition, memory, history and political meaning. Beyond the instrumental capacity of objects to create networks of actors or to give stability to a set of associations, for Scott Lash (2002), objects are repositories of memory, marks and tradition. From his perspective, in the period of reflexive modernization, the accumulation of informational goods and artifacts is accompanied by an accumulation of dangers, ills, risks and uncertainties that give material and cultural form to our technological forms of life.

3. Socio-technical systems as producers of culture and identity (Martinez de Albeniz, 2021). One of the most interesting aspects of the study of the emerging socio-technical systems in the 21st century is the way in which they incorporate cultural and identity dimensions, adapting and reformulating them for their integration within a common logic. In those socio-technical systems oriented towards innovation and change, there is a tendency to exploit identities and cultural codes within a productive and utilitarian sense that modifies the norms, objectives and resources involved within said socio-technical system.

4. The ideological character of innovation (Godin & Vinck, 2017) that celebrates novelty and connects innovation with progress, but forgets the political and disputed meaning of the phenomenon, ignoring a wide range of aspects that are also part of the technological innovation processes and their impact on social and cultural change. These aspects

include the processes of imitation, resistance, discontinuance, disinnovation, failures, withdrawal, de-adoption and unintended consequences.

5. The commitment to open, creative and innovative research strategies designed to immerse oneself in the emerging phenomena, the unexpected events or what is under construction. "This means creating research events that make it possible, through every type of technical and analytical bricolage, to map the form(s) in which what is unexpected emerges, always in the here and now of a research event/experience open to future potentials that are not determined a priori, materialized and embodied in gestures and micro-gestures of relationship with the human and nonhuman, multi-sensorial and, in any case, hybrid setting, since it is designed from the articulation amongst practices, discourses and representations as well as from the articulation of different disciplines, ranging from sociology to contemporary art and anthropology" (Abad & González, 2022).

3. Summary of the contributions to the Special Issue

The INNOKLab Research Group has been applying this theoretical and analytical perspective to a set of emerging phenomena in the Basque Country. In fact, the monograph has been composed with a vocation to present, rather than represent, some areas in which we believe that culture as a research tool has much to contribute, fundamentally because, from a conventional and restrictive conception of Basque culture, it does not have been addressed to date. The term "Basque culture" is a concept that is highly charged with political and identity connotations. Although Basque culture has experienced moments of effervescence and high doses of popular creativity, it has also been treated as a means of political contention and restrictive identity discourse. In this issue, however, we propose an approach to the creative characters of aspects deeply rooted in Basque political culture –such as language, faith, the farmhouse, folklore or gastronomy– but introducing new elements that force us to pay attention to its most emerging and destabilizing dimensions.

Thus, each of the six articles relates to one facet, among many others, of cultural innovation in the Basque Country on which an autonomous reflection can be made. But taken as a whole, they can also be read as parts of a polyhedral figure without pre-established limits and in movement that refers us to major mutations in regards to cultural change in the Basque Country. In short, we intend to develop a multidimensional and transdisciplinary view of innovations through the analysis of the symbolic codes that they incorporate, as well as the disputes, conflicts and/or contradictions that they entail.

The first of the articles included in the monograph, written by Begoña Abad and Sandra González, entitled *"From compass to radar: an innovative methodological strategy for researching cultural innovation"* addresses, precisely, a far-reaching reflection on the ontological and epistemological displacement that is needed when delving into a subject as complex as cultural innovation. In this sense, the article includes an innovative approach to the cultural research process through the radar metaphor. This refers to an assembly of methodological tools that turn the research process into a procedural, relational and performative event.

Secondly, Eduardo Apodaka, Asier Amezaga and Auxkin Galarraga study the confluence between Artificial Intelligence (AI) and minority languages in the article entitled *"La irrupción de los traductores neuronales en sistemas de actividad lingüística reglada: distorsiones, conflictos, innovaciones"* [The irruption of neural translator in regulated linguistic systems: distortions, conflicts, innovations]. Their work focuses precisely on a large-scale phenomenon such as the growing technology of linguistic activities and its impact on the transmission and learning processes of natural language. Specifically, the article deals with the study of the gradual incorporation of neural translators (which incorporate sophisticated technological systems of AI) in areas such as education. The focus is on the opportunities and challenges it generates for a minority language involved in a rehabilitation process, such as Basque language. The article asks

what practical changes occur when neural translators are introduced in regulated interaction systems whose objective is the development of aptitudes, abilities or linguistic competences in the minority language, as well as the increase and structuring of collective capacities necessary to extend its use. In short, it is a case that falls within a broad line of reflection on the ability of AI to disrupt forecasts and trends on social and cultural change as it enters into interaction and mediation in communication and social life.

The third article written by Asier Amezaga and Onintza Etxebeste, entitled *"Spirituality infrastructure: notes for analysing Arantzazu's ecosystem"* review some of the historical events that hapenned in such an emblematic place for Basque culture and society as Arantzazu. Through the concept of infrastructure, it addresses the study of the materiality of spirituality in said environment, as well as its evolution, displacement and drift towards areas that were initially far from the spiritual, such as sports or social innovation. For this, a review of four fundamental scenes is carried out that allow us to glimpse the different layers and facets of spirituality throughout the history of the Arantzazu's ecosystem: the appearance of the Virgin, the development of a language production laboratory and the Basque political community, the renovation of the basilica and the artistic intervention of the sculptor Jorge Oteiza and the international success of the Aizkorri-Zegama mountain marathon.

The following article by Onintza Etxebeste and Iñaki Martinez de Albeniz, entitled *"The paradox of the Basque farmhouse: the enfolding and unfolding of a cultural infrastructure"* deals with the analysis of the production process of the symbolic-cultural imaginary of the Basque farmhouse. More than an anthropological object or a simple model of organization of the family and domestic economy, the farmhouse is conceived as a framework open to displays and interventions that reformulate its essential image. This implies passing from its notion of archetype or fetish that responds to an identity formulation of an essentialist nature, to the consideration of infrastructure or open prototype with operational potentialities that go beyond emblematic reproduction. With this, the network of technical, semiotic and material relationships and interactions that configure and reconfigure their identity is traced, while opening the possibility of mobilizing, registering and assembling from new languages and disciplines –such as contemporary art– new relationships and associations from the Basque farmhouse.

The fifth article written by Kepa Otaegi and Eduardo Apodaka, entitled *"Iruinkokoa: a case of folkloric innovation in an urban setting"* analyses a case study of innovation in the field of Basque folklore. Specifically, the article asks what is the meaning of folklore, what would be its function nowadays and even if it is possible to speak about folkloric innovation beyond its reconversion into a resource for tourist attraction or dramatization. Avoiding the stagnant vision of folklore in the form of a frozen heritage that can only be reproduced and represented in a traditional format, the Pamplona urban carnival called Iruinkokoa is studied to analyse how folklore becomes a dynamic artifact, capable of adapting to changing times enabling new ways of experimenting and identifying through common values.

Finally, the article written by Iñaki Martínez de Albeniz and Auxkin Galarraga, entitled *"Dilemas paradigmáticos y procesos de innovación en la cultura gastronómica del País Vasco"* [Paradigmatic dilemmas and innovation processes in the gastronomic culture of the Basque Country] deals with the analysis of the evolution maintained by innovation in gastronomy through general cultural frameworks and prevailing interpretive schemes in the gastronomic culture of the Basque Country. Some of the theoretical and conceptual artifacts that have had a notable influence in guiding innovation in this field are reviewed, such as holistic gastronomy, techno-emotional gastronomy, molecular gastronomy, 360º gastronomy and the value chain of gastronomy and food. However, the authors point out that in order to analyse the type of associations that make up innovative gastronomy, it is necessary to look beyond the conventional imaginary of gastronomy related to ingredients, recipes, techniques, dishes, chefs, restaurants, foodies, Michelin stars, etc. For this, they propose the term Gastrology to account for the extended version of current gastronomy that would encompass the various scales that intersect in

everything that is between our intestine and the planet and that are associated to grant public and lasting materiality to innovative gastronomy. Among the different scales that can be differentiated are the nano gastronomic scale that attends to the chemical composition of food, the micro scale of gastronomy or molecular gastronomy, the meso scale in which the definition of "common sense" of gastronomy and, finally, the macro scale that attends to the systemic consequences of our food production and consumption models.

The articles contain, in any case, an invitation to debate, reflection and analysis of cultural innovation in the Basque Country, which we hope will stimulate new contributions and studies on the meanings and paths of cultural change in the 21st century.

Presentación del Número Especial

Innovación cultural en el País Vasco: Una visión poliédrica"

1. INNOKLab como laboratorio de innovación cultural

El presente Número Especial que lleva por título "La innovación cultural en el País Vaco: Una mirada poliédrica" reúne 6 artículos elaborados por los miembros del emergente grupo de investigación de la Universidad del País Vasco / Euskal Herriko Unibertsitatea (UPV/EHU) "INNOkLab: Laboratorio de Innovación Cultural". Los artículos son, precisamente, el resultado de un proceso reflexivo por delimitar un campo de estudio complejo, pero extraordinariamente sugerente como la innovación cultural, desde una perspectiva epistemológica que entiende la evolución y el cambio cultural como parte constitutiva de los sistemas socio-técnicos más dinámicos de la actualidad. Se trata, por lo tanto, de un esfuerzo colectivo que atiende a los vínculos entre la innovación y la cultura desde la consideración de que las asociaciones y conexiones que hacen posible los procesos de innovación son también el resultado de la transformación de rutinas cotidianas, identidades, interpretaciones simbólicas y repertorios emocionales de los propios actores implicados.

La innovación cultural es la vertiente menos estudiada por las diversas ramas y corrientes que componen el heterogéneo campo de los estudios de innovación. Estos han prestado una atención secundaria o subsidiaria a las dimensiones culturales que intervienen en los procesos de innovación, puesto que su principal propósito ha sido la explicación esencialmente técnica de la misma, preferentemente en su faceta más tangible y material. Incluso en aquellos análisis en los que se han destacado los factores culturales como palancas de los procesos de innovación (Hofstede, 1980; Hofstede, Hofstede & Minkov, 1991) se han establecido relaciones causales simplificadas y parciales que conceden un poder táctico a la cultura que debe ser integrada y gestionada dentro de una mecánica general del cambio tecnológico, económico y organizativo.

Ciertamente, el análisis de los vínculos que se establecen entre la innovación y la cultura no está exento de dificultades teóricas y empíricas. El escollo inicial es la existencia de diversas perspectivas de análisis que tratan esta vinculación con objetivos y planteamientos diferentes o incluso incorporando una definición desigual tanto del concepto de innovación como del propio concepto de cultura. A grandes rasgos, pueden diferenciarse tres grandes ámbitos de trabajo centrados en las conexiones entre la innovación y la cultura. Los dos primeros siguieron inicialmente caminos paralelos, mientras que el tercero se ha ocupado por desentrañar el espacio intermedio existente entre las dos primeras perspectivas y de construir puentes teóricos y analíticos que posibiliten comprender la creciente relevancia cultural de la innovación y de la creatividad.

1. En un primer grupo se sitúan los análisis sobre la cultura de la innovación o las culturas innovadoras. Ante el avance de las sociedades de ciencia –en contraposición a las sociedades de cultura– (Lamo de Espinosa, 1996), orientadas por completo al avance tecnológico y a la innovación se han realizado múltiples análisis para poder evaluar los niveles y la capacidad de innovación tanto de los países, los territorios y ciudades, como de las empresas y de las organizaciones. Una parte muy importante de tales análisis han centrado sus esfuerzos por atender a la manera en la que la cultura nacional, regional, local u organizacional favorece o limita la innovación (Schein, 1992; Saxenian, 1994; Landry, 2000; Himanen, 2001; Florida, 2002). Dichos estudios sitúan la cultura –la cultura cosmopolita y urbana preferentemente– como variable explicativa de las capacidades de innovación tecnológica y del desarrollo territorial, a la vez que

la entienden como ámbito susceptible de ser gestionado en el seno de las organizaciones para que esta contribuya a la intensificación de la innovación y del cambio tecnológico. Desde tales perspectivas, los códigos culturales compartidos por los grupos sociales se entienden como recursos o nutrientes que alimentan la innovación, principalmente en su faceta más científico-tecnológica.

2. El segundo de los grandes ámbitos de trabajo lo constituyen los análisis centrados en las dinámicas innovadoras del ámbito cultural. La perspectiva schumpeteriana de la innovación, que ha sido dominante en los estudios sobre la materia durante varias décadas, no prestó ninguna atención especial a las dinámicas innovadoras presentes en la esfera cultural, ni contempló las industrias y las actividades culturales como espacios de innovación. Serían, los estudios sobre la economía cultural y sobre las fuentes de la innovación quienes pusieran el foco en el conocimiento artístico y cultural como ejes del pensamiento disruptivo y como palancas para activar la generación de nuevas ideas y propuestas (Leadbeater & Oakley, 1999). Solamente a partir de los años 2000, el dinamismo y la capacidad de adaptación de la esfera cultural, que había permanecido oculta hasta la fecha para los estudios de innovación (Miles & Green, 2008), despertó un amplio interés. Asimismo, las fórmulas de trabajo empleadas en este ámbito fueron destacadas por su efectividad y capacidad transformadora, hasta el punto de que debían ser imitadas y trasladadas al ámbito tecnológico (Brown, 2009). Con ello se produce un cambio sustancial en las políticas culturales que se reconvirtieron en políticas de la creatividad y de la innovación en cultura (YProductions, 2008), promocionando un nuevo sector –las industrias culturales y creativas (ICC)– que trasciende a lo que tradicionalmente se había entendido como ámbito cultural (DCMS, 1998; Cunningham, 2002). La cultura y lo cultural devienen, así en mercancía (Brea, 2004; Comaroff & Comaroff, 2009), no solo de obras artísticas originales o de productos culturales globales de carácter masivo, sino de productos y servicios innovadores sofisticados y estetitizados (Lipovetsky & Serroy, 2013; Reckwitz, 2017) que aportan diferenciación, valor añadido y vinculación emocional.

3. El tercer ámbito de análisis se sumerge en las intersecciones de los dos ámbitos principales diferenciados centrándose en la dimensión transversal de la creatividad social atribuyendo a esta categoría un doble carácter. Por un lado, es interpretada como fuerza motriz de la innovación, mientras, por otro lado, se entiende como resultado de la acumulación de capacidades, recursos y motivaciones para innovar en cualesquiera de los ámbitos institucionales en los que se despliega. Así, las corrientes que interpretan la innovación en la cultura como mercancía y aquellas otras que analizan la cultura de la innovación como recurso de la transformación organizativa y de la ventaja competitiva sitúan el germen del pulso innovador en la creatividad humana, entendida esta como la búsqueda innata de originalidad y novedad, que debe ser capturada para ser reconvertida en innovación (Wilson, 2018). Así, la creatividad ha sido glorificada y elogiada hasta ubicarse entre los valores sociales hegemónicos del capitalismo contemporáneo. Ha sido cubierta de un manto simbólico de excelencia que actúa tanto como "expectativa social" (una dimensión que es capaz de generar resultados altamente productivos en aquellos entornos en los que se despliega), como de "preferencia subjetiva" (la necesidad de expresarse en términos creativos que se ha extendido a múltiples actividades y sectores sociales) (Sanchez Capdequí, 2017). Se destaca, por lo tanto, que la lógica de estabilización dinámica y de aceleración de la innovación en la que se ha instalado la modernidad empuja al sujeto moderno a dinamizarse (Rosa, 2019). Esta tercera perspectiva, en definitiva, destaca que el imperativo de innovar se expande como norma cultural. Todo ello dotándose de un carácter instituyente de marcos cognitivos y poderes discursivos con una alta influencia sobre las políticas y las líneas programáticas de los decisores públicos.

La revisión de los tres ámbitos principales nos remite a relevantes mutaciones culturales en las sociedades de la innovación, sea porque la cultura es utilizada como recurso, deviene en mercancía en el seno del capitalismo artístico, o se constituyen nuevas normas culturales que invocan el imperativo de innovar. En todo caso, lo que tales perspectivas señalan es que los códigos culturales compartidos están sometidos a constantes alteraciones, adaptaciones, instrumentalizaciones y disputas en el seno de las sociedades tecnológicamente avanzadas.

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2. El programa de investigación INNOKLab

El programa de investigación de INNOKLab presta especial atención a estas tres dimensiones de la innovación cultural por su carácter transversal y performativo. En suma, consideramos que la forma más efectiva de sacar el concepto de cultura su oscurantismo –ese límite cognitivo que impide que pase de su condición de fetiche oculto a objeto de análisis–, no radica en refugiarse en el estudio estético, hermenéutico o étnico del hecho cultural, sino que consiste en abrir los estudios culturales a la consideración de culturas en movimiento, una vez que las dimensiones culturales se incorporan, con todas sus consecuencias, en los espacios y procesos de innovación. Ello implica, situar toda la atención sobre las alteraciones, adaptaciones, instrumentalizaciones, tutelas, resistencias y controversias culturales que emergen ante la aceleración del cambio y de la innovación.

Para ello, INNOKLab se alinea con un conjunto de aproximaciones teóricas y metodológicas que consideramos especialmente fructíferas para el estudio de la innovación cultural.

1. La "antropología simétrica" planteada por Bruno Latour (1991) que intenta superar la separación entre el mundo natural y el social o lo humano que se encuentra en el núcleo del pensamiento de la modernidad. Dicho planteamiento señala, que los objetos y artefactos, calificados por Latour como cuasi-objetos, poseen capacidad de agencia porque son productores de naturaleza y constructores de sujetos. La labor del investigador, por tanto, es seguir a los actores mismos (actantes en el lenguaje de Latour) en las nuevas asociaciones que establecen para articular su actividad.

2. Los objetos como portadores de tradición, memoria, historia y significado político. Más allá de la capacidad instrumental de los objetos de crear redes de actores o de dar estabilidad a un conjunto de asociaciones, para Scott Lash (2002), los objetos son repositorios de memoria, huellas y tradición que están incorporadas a los mundos de la vida. Desde su perspectiva, en el periodo de la modernización reflexiva la acumulación de bienes y artefactos informacionales, se acompaña por una acumulación de peligros, males, riesgos e incertidumbres que dan forma material y cultural a nuestras formas de vida tecnológicas.

3. Los sistemas socio-técnicos como productores de cultura e identidad (Martinez de Albeniz, 2021). Uno de los aspectos más interesantes del estudio de los entramados socio-técnicos emergentes en el siglo XXI es la forma en la que incorporan dimensiones culturales e identitarias, adaptándolas y reformulándolas para su integración dentro de una lógica común. En aquellos entramados socio-técnicos orientados a la innovación y el cambio se tiende la instrumentalización de las identidades y los códigos culturales dentro de un sentido productivo y utilitarista que modifica las normas, objetivos y recursos implicados en el seno de dicho sistema socio-técnico.

4. El carácter ideológico de la innovación (Godin & Vinck, 2017) que celebra la novedad y conecta la innovación con el progreso, pero que olvida el sentido político y disputado del fenómeno, obviando un amplio abanico de aspectos que también forman parte de los procesos de innovación tecnológica y de su impacto en el cambio social y cultural. Entre estos aspectos cabe señalar los procesos de imitación, resistencia, discontinuidad, desinnovación, fracasos, retirada, desadopción y consecuencias imprevistas.

5. La apuesta por estrategias y diseños de investigación abiertos, creativos e innovadores pensados para sumergirse en lo emergente, lo inesperado o lo que está en construcción. "Se trata de crear eventos de investigación que permitan, a través de todo tipo de bricolaje técnico y analítico, cartografiar la(s) forma(s) en que emerge lo inesperado, siempre en el aquí y ahora de un evento/experiencia de investigación abierto a futuras potencialidades no determinadas a priori, materializado y encarnado en gestos y microgestos de relación con lo humano y lo no humano, multisensorial y, en todo caso, híbrido, ya que se concibe desde la articulación entre prácticas, discursos y representaciones, así como desde la articulación de diferentes disciplinas, que van desde la sociología al arte contemporáneo y la antropología" (Abad & González, 2022).

3. Resumen de las contribuciones al Número Especial

El Grupo de Investigación INNOKLab ha venido aplicando la perspectiva teórica y analítica presentada a un conjunto de fenómenos emergentes en el País Vasco. De hecho, el monográfico se ha compuesto con una vocación de presentar, más que representar, algunos ámbitos en los que se considera la cultura como herramienta de investigación tiene mucho que aportar, fundamentalmente porque, desde una concepción convencional y restrictiva de la cultura vasca no se habían abordado hasta la fecha. Así, cada uno de los seis artículos corresponde a una faceta, entre otras muchas, de la innovación cultural en el País Vasco sobre la que cabe hacer una reflexión autónoma. Asimismo, tomadas en su conjunto, las aportaciones realizadas en este número también pueden ser leídas como partes de una figura poliédrica sin límites preestablecidos y en movimiento que nos habla sobre un cambio de tendencia en lo que respecta al cambio cultural. En definitiva, nos proponemos desarrollar una mirada multidimensional y transdisciplinar sobre las innovaciones a través del análisis de los códigos simbólicos que estos incorporan, así como las disputas, conflictos y/o contradicciones que acarrean.

El primero de los artículos que componen el monográfico, elaborado por Begoña Abad y titulado *"From compass to radar: an innovative methodological strategy for researching cultural innovation"* aborda, precisamente, una reflexión de envergadura sobre el desplazamiento ontológico y epistemológico que se precisa al adentrarse en una temática tan compleja como la innovación cultural. En este sentido, el artículo recoge un planteamiento innovador del proceso de investigación cultural a través de la metáfora del radar. Con ello se hace referencia a un ensamblaje de herramientas metodológicas que convierten el proceso de investigación en un evento procesual, relacional y performativo.

Por su parte, el artículo aportado por Eduardo Apodaka y Asier Amezaga que lleva por título *"La irrupción de los traductores neuronales en los sistemas de actividad lingüística reglada: distorsiones, conflictos, innovaciones"* [The irruption of neural translator in regulated linguistic systems: distortions, conflicts, innovations] se centra precisamente en un fenómeno de gran envergadura como es la creciente tecnologización de las actividades lingüísticas y su impacto en los procesos de transmisión y aprendizaje del lenguaje natural. En concreto, el artículo aborda el estudio de la paulatina incorporación de los traductores neuronales (que incorporan sofisticados sistemas tecnológicos de inteligencia artificial) en ámbitos como la educación y sobre las oportunidades y desafíos que genera para una lengua minoritaria en proceso de rehabilitación como el euskera. El artículo se pregunta qué cambios prácticos ocurren cuando se introducen los traductores neuronales en sistemas de interacción reglados que tienen como objetivo el desarrollo tanto de las aptitudes, habilidades o competencias lingüísticas en la lengua minoritaria como el aumento y la estructuración de las capacidades colectivas de uso de la lengua en proceso de revitalización. En definitiva, se trata de un caso que se enmarca dentro de una amplia línea de reflexión sobre la capacidad de la IA para trastocar previsiones y tendencias sobre el cambio social y cultural a medida que entran en interacción y mediación en la comunicación y vida social.

El tercer artículo escrito por Asier Amezaga y Onintza Etxebeste, titulado *"Spirituality infrastructure: notes for analysing Arantzazu´s ecosystem"* se adentra en los diversos

acontecimientos históricos acaecidos en un lugar tan emblemático de la cultura y de la sociedad vasca como es Arantzazu. A través del concepto de infraestructura aborda el estudio de la materialidad de la espiritualidad en dicho enclave, así como su evolución, desplazamiento y deriva hacia ámbitos en un principio alejados de lo espiritual como el deporte o la innovación social. Se realiza para ello una revisión de cuatro escenas fundamentales que permiten vislumbrar las diferentes capas y facetas de la espiritualidad a lo largo de la historia del ecosistema de Arantzazu: la aparición de la Virgen, el desarrollo de un laboratorio de producción de la lengua y la comunidad política vasca, la renovación de la basílica y la intervención artística del escultor Jorge Oteiza y el éxito internacional de la maratón de montaña Aizkorri-Zegama.

El siguiente artículo de Onintza Etxebeste e Iñaki Martinez de Albeniz, titulado *"The paradox of the basque farmhouse: the enfolding and unfolding of a cultural infraestructure"* aborda el análisis del proceso de producción del imaginario simbólico-cultural del caserío vasco. Más que un objeto antropológico o de un simple modelo de organización de la economía familiar y doméstica, el caserío se concibe como un entramado abierto a despliegues e intervenciones que reformulan su imagen esencial. Ello implica pasar de su noción de arquetipo o fetiche que responde a una formulación identitaria de carácter esencialista a la consideración de infraestructura o de prototipo abierto con potencialidades operativas que van más allá de la reproducción emblemática. Con ello, se rastrea la red de relaciones e interacciones técnicas, semióticas y materiales que configuran y reconfiguran su identidad, a la vez que se abre la posibilidad a movilizar, registrar y ensamblar desde nuevos lenguajes y disciplinas –tales como el arte contemporáneo– nuevas relaciones y asociaciones desde el caserío vasco.

Por su parte, el artículo elaborado por Kepa Otaegi y Eduardo Apodaka, titulado *"Iruinkokoa: a case of folkloric innovation in an urban setting"* ["Iruinkokoa: un caso de innovación folclórica en un entorno urbano"] analiza un caso de estudio de innovación en el ámbito del folclore vasco. En concreto, el artículo se pregunta qué sentido tiene el folclore, cuál sería su función en la actualidad e incluso si cabe hablar de innovación folclórica más allá de su reconversión en recurso para la atracción turística o la teatralización. Evitando la visión estanca del folclore en forma de patrimonio congelado que solo puede ser reproducido y representado en un formato tradicional, se estudia el carnaval urbano pamplonés denominado *Iruinkokoa* para analizar cómo el folclore se convierte en un artefacto dinámico, capaz de adaptarse a los tiempos de cambio constantes que habilita nuevas formas de experimentar e identificarse a través de los valores comunes.

Por último, el artículo elaborado por Iñaki Martínez de Albeniz y Auxkin Galarraga, titulado *"Dilemas paradigmáticos y procesos de innovación en la cultura gastronómica del País Vasco"* aborda el análisis de la evolución mantenida por la innovación en gastronomía a través de los marcos culturales generales y esquemas interpretativos imperantes en la cultura gastronómica del País Vasco. Se revisan algunos de las artefactos teóricos y conceptuales que han tenido una influencia destacada a la hora de orientar la innovación en este ámbito, tales como la gastronomía holística, la gastronomía tecno-emocional, la gastronomía molecular, la gastronomía 360º y la cadena de valor de la gastronomía y la alimentación. No obstante, los autores señalan que para poder analizar el tipo de asociaciones que configura la gastronomía innovadora se precisa mirar más allá del imaginario convencional de la gastronomía compuesta por ingredientes, recetas, técnicas, platos, chefs, restaurantes, foodies, Estrellas Michelin, etc. Proponen, para ello, el término Gastrología mediante el cual poder dar cuenta de la versión extendida de la gastronomía que abarcaría las diversas escaladas que se entrecruzan en todo aquello que está entre nuestro intestino y el planeta y que se asocian entre sí para otorgar materialidad pública y duradera a la misma. Entre las diferentes escaladas pueden diferenciarse, la escala nano gastronómica que atiende a la composición química de los alimentos, la escala micro de la gastronomía o gastronomía molecular, la escala meso en la que se despliega la definición de "sentido común" de la gastronomía y, por último, la escala macro que atiende a las consecuencias sistémicas de nuestros modelos de producción y consumo de alimentos.

Los artículos contienen, en cualquier caso, una invitación al debate, la reflexión y el análisis de la innovación cultural en el País Vasco que esperamos estimule nuevas aportaciones y estudios sobre los sentidos y recorridos del cambio cultural en el Siglo XXI.

References / Referencias

Abad, B., & Gonzalez, S. (2022). From compass to radar: an innovative methodological strategy for researching cultural innovation. *European Public and Social Innovation Review, 7*(2).

Brea, J. L. (2004). *El tercer umbral: Estatuto de las prácticas artísticas en la era del capitalismo cultural.* Cendeac.

Brown, T. (2009). *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation.* Harper Collins.

Comaroff, J. L., & Comaroff, J. (2009). *Ethnicity, Inc.* University of Chicago Press.

Cunningham, S. (2002). From Cultural to Creative Industries: Theory, Industry and Policy Implications. *Media International Australia, 102*, 54-65.

DCMS. (1998). *Creative Industries Mapping Document.* Department of Culture, Media and Sport.

Florida, R. (2002). *The Rise of the Creative Class: And How It´s Transforming Work, Leisure, Community and Everyday Life.* Basic Books.

Godin, B., & Vinck, D. (Eds.). (2017). *Critical Studies of Innovation: Alternative Approaches to the Pro-Innovation Bias.* Edward Elgar.

Himanen, P. (2001). *The Hacker Ethic and the Spirit of the Information Age.* Random House.

Hofstede, G. (1980). *Culture´s Consequences: International Differences in Work-Related Values.* SAGE.

Hofstede, G., Hofstede, G. J., & Minkov, M. (1991). *Cultures and Organizations. Software of the Mind: Intercultural Cooperation and Its Importance for Survival.* McGraw Hill.

Lamo de Espinosa, E. (1996). *Sociedades de cultura, sociedades de ciencia.* Nobel.

Landry, C. (2000). *The Creative City: A Toolkit for Urban Innovators.* Earthscan.

Leadbeater, C., & Oakley, K. (1999). *The Independents: Britain´s New Cultural Entrepreneur.* Demos.

Lipovetsky, G., & Serroy, J. (2013). *L´esthétisation du monde: Vivre à la âge du capitalisme artiste.* Gallimard.

Martinez de Albeniz, I. (2021). From Francoism to franchise: Basque identity as a socio-technical network. *Journal of Spanish Cultural Studies, 22*(4), 519-537.

Miles, I., & Green, L. (2008). *Hidden Innovation in the Creative Industries.* Nesta.

Reckwitz, A. (2017). La estetización y el dispositivo de la creatividad: El régimen social de la novedad estética. En C. Sánchez Capdequí (Ed.), *La creatividad social: Narrativas de un concepto actual* (pp. 373-374). Centro de Investigaciones Sociológicas.

Rosa, H. (2019). *Resonance: A Sociology of Our Relationship to the World.* Polity.

Sánchez Capdequí, C. (2017). Creatividad: ¿Hasta dónde instituyente, hasta dónde instituida? En C. Sánchez Capdequí (Ed.), *La creatividad social: Narrativas de un concepto actual* (pp. 7-17). Centro de Investigaciones Sociológicas.

Saxenian, A. (1994). *Regional Advantage: Culture and Competition in Silicon Valley and Route 128.* Harvard University Press.

Schein, E. H. (1992). *Organizational Culture and Leadership.* Jossey-Bass.

Wilson, E. O. (2017). *The Origins of Creativity.* Penguin.

YProductions. (2008). *Innovación en cultura: Una aproximación crítica a la genealogía y usos del concepto.* YProductions.

Research Article

From compass to radar: An innovative methodological strategy for researching cultural innovation

De la brújula al radar: Una estrategia metodológica innovadora para investigar la innovación cultural

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Abstract: In response to the absence of a deep reflection on methodological innovation, this article sets out to approach the most appropriate strategy for investigating cultural innovation. In this regard, underlying this article there is a conceptual revision of two key terms: culture and innovation. The former is expanded towards more open and creative visions, and the latter is redefined from a linear and accumulative conceptualisation to an open and creative process. In order to build a new methodological approach based on this revision, we focus on presenting an onto-epistemological turn that implies a move from a research process in a linear progression, to an innovative cultural research process understood as an event that is processual, relational, and performative. By way of conclusion, the article proposes a creative and innovative research device that is open to the multiple configurations in which individuals and groups inhabit, build and experience culture in innovative ways.

Keywords: cultural innovation; methodological innovation; onto-epistemological turn; linear research process; processual research process.

Resumen: Ante la falta de una reflexión profunda sobre innovación metodológica, este artículo se propone abordar la estrategia más adecuada para investigar la innovación cultural. En este sentido, subyace en este artículo una revisión conceptual de dos términos clave: cultura e innovación. El primero se expande hacia visiones más abiertas y creativas, y el segundo, se redefine desde una conceptualización lineal y acumulativa hacia un proceso abierto y creativo. Para construir un nuevo enfoque metodológico a partir de esta revisión, presentamos un giro onto-epistemológico que implica pasar de un proceso de investigación en progresión lineal, a un proceso de investigación cultural innovador entendido como un evento procesual, relacional y performativo. A modo de conclusión, el artículo propone un dispositivo de investigación creativo e innovador, abierto a las múltiples configuraciones en las que individuos y grupos habitan, construyen y experimentan la cultura de forma innovadora.

Palabras clave: innovación cultural; innovación metodológica; giro onto-epistemológico; proceso de investigación lineal; proceso de investigación procesual.

1. A journey through the hidden details of methodological innovation

In this article we share the unease felt by many researchers confronting the absence of a deep reflection on methodological innovation in the social sciences. Amparo Lasén and Elena Casado (2014, p. 156) assert that this reflection is an urgent issue that cannot be postponed given what the authors interpret as a lack of adjustment between the commonly used method and research techniques (both quantitative and qualitative) and the emergent social practices in the present socio-historical context. More concretely, we could say that the current state of the debate is at the very least insufficient since when it does take place, it largely focusses on the purely technical adaptation[1] of the techniques in use, or on their adoption[2] and transfer from one field of application to another.

Without denying the contribution of the two modalities, true methodological innovation would be that which recovers epistemology as the starting point and the horizon of realisation since otherwise "epistemology is diluted when methodology becomes technique, minimising the situated and socio-historical character of all social practice, including research" (Lasén & Casado, 2014, p. 158). There are two implicit arguments in this assertion: on one side, an in-depth consideration of the meaning of innovation; and on the other, recognition of the performative, when not political, character of methodology. It is worth dwelling briefly on these arguments.

In all ages, there are fetish/password terms that serve to legitimise those who use them as legitimate participants in a "socialised linguistic network" (Pacho, 2009, p. 33). Julián Pacho (2009) reminds us that "in the first half of the XIX century the terms 'development' and 'evolution' were in fashion and served as a password; in the second half of the same century, they were replaced by 'progress' and 'sciences' in the plural". For this author, the term innovation has emerged as the fetish word of the XXI century, due to its inflationary use in all fields and in all instances of public and private institutional power, economic management and also knowledge management[3]. Inflationary use is not incompatible with radical ambiguity in the term's definition, or with the absence of such a definition or some type of reflection on it. Stated differently, the term's fetishization does not always prove enlightening since this is quite often not accompanied by any conceptual and semantic delimitation of a term that is in itself already slippery and ambiguous.

With the aim of remedying this course of action, in what follows we present a basic and possibly shared definition of the term. Hence, by innovation we understand the introduction in theory or in practice of a new object, whether this be a concept, a process, a techno-object or a form of application or development of each one of the foregoing (Pacho, 2009, p. 33). The mention of theory and practice refers to the articulation between invention (innovation in relation to new ideas, designs and approaches) and application (innovation with regard to the exploitation and diffusion of these ideas, concepts and designs…). Also implicit is the positive axiology that is attributed to innovation by making it the equivalent of "benefit", "improvement" and even

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[1] "Claims for innovation which are adaptations are when an author claims an established method has been adapted or changed" (Wiles et al., 2010, p. 14).

[2] "Claims for innovation relating to adoption are when an author claims they are taking a method into a new discipline or sphere […] or a novel combination of method is used, for instance use of quantitative, textual and visual analyses in combination" (Wiles et al., 2010, p. 14).

[3] The inflationary use of the term can be confirmed by the results of introducing the term in any search engine. If we refine the search using the terms innovation+methods or methodology, the number of results obtained increases substantially. That being said, the recurring presence of the term should not be understood solely as a reflection of intellectual aspiration. It can also be seen as a response induced by the logic of knowledge and research production in so-called academic capitalism (Slaughter & Leslie, 1997). Such production extols the figure of the academic entrepreneur and innovator subjected to the permanent trial of her/his contribution to the chain of value, to productivity in the framework of a rapid science oriented to obtaining and distributing outputs directly aimed at resolving concrete problems (efficiency); a science/research that uses controllable quantitative criteria (although external to the requirements of the discipline itself) to evaluate the quality of the research (calculability): indicators of impact, number of publications associated to the research project, etc.; and finally, a science/research based on anticipating the future (predictability) based on present-day knowledge (Abad & Davila, 2020).

"progress" since ultimately innovation always has a favourable outcome of some kind (Taylor & Coffey, 2008, p. 8). The positive axiology cited contributes to obviating the fact that progress and improvement, when present, are the result of a long chain of trial-and-error processes that discard "those innovations that are not compatible (and, therefore, virtually synergetic) with the rest" (Pacho, 2009, p. 38). Innovation, and methodology as well, is thus presented with a markedly unidirectional, teleological, technical and procedural bias, since a final result retrospectively determines and directs everything that precedes it. Lineal interpretation constituted by a prior decision that is concretised in a succession of successful phases, developed by means of techniques of refinement, adaptation and adoption; a process that advances in lineal progression obviating the routes, advances and retrocessions that are discarded as non-conclusive and focusing on the static abstractions of this process, which is thus converted into a mere concatenation of isolated events (Woolgar, 1991).

The second argument mentioned above, referring to the performative character of the methodology, involves accepting that the method (as a constitutive part of the latter) is something more than a set of valid procedures for approaching a given reality, for obtaining a specific type of data. It is not exclusively technical, much less innocent. The method is performative, it helps to produce realities as Karen Barad (2007, p. 91) reminds us when she notes that "making knowledge is not simply about making facts but about making worlds, or rather, it is about making specific worldly configurations" (cited in Krehl, Thomas & Bellingham, 2020, p. 1). John Law uses the term method assemblage to underscore this idea: "method assemblage is a continuing process of crafting and enacting necessary boundaries between presence, manifest absence and Otherness" (Law, 2004, p. 144). A game of absence/presence for understanding the most significant dimension of methodological innovation, called inception (Willes et al., 2010): a new and revised conceptual, epistemological schema that, when put into practice, introduces some modification into the form of seeing/researching a phenomenon.

Consideration of the three forms of methodological innovation outlined above enables us to detect a certain hierarchical relation between them; or better put, a relationship of displacement from innovation as mere transference (adoption) or simple improved extension (adaptation), to innovation as a constitutive aspect of an "other" methodological approach (inception). In this, the process of innovation goes beyond a simple change of position that seeks to achieve a better and more systematically exhaustive extraction of data and information; that is to say, beyond an activity that is purely extractive of meanings (Barnett, 2014, p. 284)[4]. Methodological innovation understood in this widened sense supposes "an involvement and openness to experience" (Barnett, 2014, p. 284); an openness to experience in which such meanings emerge and are constructed.

2. Detailing method assemblage: from arboreal knowledge to rhizomatic knowledge

From the perspective of method as something more than a neutral procedure that not only describes but also produces the reality that it tries to investigate by detecting patterns, underlining and enlarging some while silencing others, it is interesting to know the specific forms in which method assemblage is conjugated in order to understand the onto-epistemological displacement that is entailed in all innovation understood as inception.

The conception of reality that has been associated for centuries with the method of the social sciences is based on the supposition of a reality understood "as a set of fairly specific, determinate,

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[4] With respect to the cultural field that concerns us here, this shift also implies a re-conceptualisation of the articulation between culture and innovation that would adopt three forms that correspond in a certain way to the methodological innovation we have set out: innovative culture (in allusion to the use of the term innovation in its version as refinement or improvement that makes cultural products expand, arousing market interest); culture of innovation (in reference to the creation and transfer of practices, discourses and programs aimed at generating a climate of social and cultural innovation); cultural innovation (identification of the cultural sphere as a space of knowledge production based on an exercise of onto-epistemological creativity) (Piazuelo Lamote de Grignon & YProductions, 2008).

and more or less identifiable processes" (Law, 2004, p. 5); "that there are definite processes out there that are waiting to be discovered" (Law, 2004, p. 6)[5]. For its part, the method, its procedures, and rules are perceived as the certain and reliable instrument for approaching that reality that waits to be discovered/uncovered. In this sense, "method hopes to act as a set of short-circuits that link us in the best possible way with reality and allow us to return more or less quickly from that reality to our place of study with findings that are reasonable secure, at least for the time being" (Law, 2004, p. 10). The method acts here as a compass that orientates the research process, making the person who initiates it responsible for both the point that s/he takes as a reference on the horizon and the path followed to approach it, while reality is a structure, a territory that we can interpret, represent and cut out by selecting what proves meaningful (what we want to make visible, make known).

The selection is made according to an initial stimulus, a purpose that acts as a compass, a device that always points to the goal, the attainment of the established objectives, the achievement of results that, acting as evidence, make it possible to coherently answer the initial stimulus. This is linked to a form of knowledge that Deleuze and Guattari termed arboreal in relation to a process described as "as linear, static, and 'tree-like' in its installation of a hierarchy of genealogical structures that continue to subdivide phenomena through formal principles of identity" (1987, p. 7). It produces answers where there should be questions and tries to create order and structure, breaks and discontinuities in the form of metric (e.g., tables and charts) and linguistic representations (e.g., taxonomies) where continuity is the norm (Abad & Davila, 2020).

In terms of research, we are facing a lineal and chronological process that identifies the problem, analyses data, evaluates and provides solutions with a predictive value; a process in which it is the research procedure itself that is of value inasmuch as it connects cause and effect (Torrance, 2019, pp. 736-737), providing "findings of research to be immediately 'useful' in the context of (so-called) evidence-based policy making, the 'what work' movement, and 'scientifically based research'".

It is not surprising that the only innovation conceivable in this framework is that pointing to improvements of adaptation and refinement in the development of the procedure itself, without going into deeper questions, or into its epistemological foundations. To address these foundations would involve recalling that this model sets out from a conception of reality as "independent of our actions and especially of our perceptions […] a reality that is out there beyond ourselves" (Law, 2004, p. 24; emphasis in the original); a static, permanent reality that is predictable in its patterns of relation and configuration that waits inertly and passively to be discovered, uncovered (Woolgar, 1991, p. 84) and represented[6] in a research process that is reduced, in essence, to tracing the outlines, levels and slopes that shape it[7] (Martin & Kamberelis, 2013).

The arboreal form of knowledge shows its limitations when it comes to understanding (or simply describing) the more complex and diffuse aspects of reality, those that appear and

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[5] This conception is understood on the basis of a binary logic of thought in which the subject and the object appear clearly differentiated.

[6] Representation is only possible, on one side, from the radical separation between a knowing subject and a knowable object and, on the other, from its conception as a carbon copy or reproduction of what is previously given (Martin & Kamberelis, 2013), which corresponds to the view of "the truth" dominant in Western philosophical thought; a conception that holds that the truth represents a relation of correspondence between a (discursive) proposition and an extra-discursive reality so that "in this view, thought is about a realm completely independent of human action and expresses things as they are in themselves, that is, free of human interpretation" (Alcoff, 1991, p. 14). It is worth keeping in mind that this is no more than a fiction aimed at hiding the inscription made on the object by the interpretation of the person investigating it. It cannot, therefore, be understood as an act of discovery in the strict sense as the representation is mediated by the gaze of the person making it.

[7] The method deployed in the research process delimits, names and gives visibility to what can be objectified. In a certain way it shapes "what is" (the limits of its presence). But by proceeding in this way, we also define the contours of what is absent, what is incidental, what is intermittent and, by means of all this, we define the otherness of what cannot be objectified so easily by means of the traditional assemblage method.

disappear following a logic that is hard to predict. Because reality presents itself to us shaped by aspects that escape from order, clarity and predictive certainty. And when they do become predictable, this is as a result of our effort to adjust their confusing and discontinuous nature, their rules of appearance/ disappearance, to the rules of order and clarity of our methods (Law, 2004).

In fact, the data, their conceptualisation, are prior to their construction, emergence and appearance: we know what to do with them, how to analyse them, how to present them and how to increase their validity even before any encounter with the data themselves (Koro-Ljungberg, 2016, p. 45). We treat data the same way as Procrustes[8] treated the travellers who arrived at his guesthouse: we break them, stretch them, shorten them… until they are made to fit onto the bed/map of our research.

Breaking with this logic of the order/pattern/map involves innovating beyond adaptation and even adoption, understood as procrustean practices: it means innovating to go beyond the standardisation implicit in these practices, not as a mere form of providing an outlet for a mere intellectual desire, but instead as "the attempt to respond to certain problematizations that are emerging within the social field" (Shumack & Tuckwell, 2010, p. 6). In fact, as John Law reminds us, "if we want to think about the messes of reality at all then we're going to have to teach ourselves to think, to practice, to relate, and to know in new ways. We will need to teach ourselves to know some of the realities of the world using methods unusual to or unknown in social science" (Law, 2004, p. 12).

This new way of thinking points towards the rhizomatic knowledge developed by Deleuze and Guattari (1987). As the physical and biomedical sciences have explained to us very well, the reality/world/universe is not a discreet set of units that remain in a fixed and static order so that the research must focus on describing and representing the identity (essence) that defines them based on their position in precise space/time coordinates. On the contrary, the reality/world/universe is defined by flow, movement, change and displacement characterised "not as a pregiven reference or fixed category, but as a life form in movement characterized exactly by its being-in movement" (Wentzen & Mattingly, 2018, p. 150; cited in Salazar, 2022 p. 14). This movement does not assume the course of an arrow and as a result it cannot be understood as evolution but as involution, a concept that "captures well the entangled pushing and pulling of 'organisms constantly inventing new ways to live with and alongside one another'" (Hustak & Myers, 2012, p. 87; cited in Salazar, 2022, p. 15).

Reality in movement, fluid reality, that which emerges through a process of relational becoming, acquires the form of a rhizome: an assemblage or mangle in which "human interactions, thoughts, language, discourse, matter (materiality) and nature are all occupants of the world […] and all have equal status in this world's flat topology" (Greene, 2013, p. 751). The rhizome concept enables us to visualise a flat typology, a structure of horizontally interconnected nodes in constant growth: "There are no points or positions in the rhizome, such as those found in a structure, tree, or root. There are only lines" (Deleuze & Guattari, 1987, p. 8) and "these lines are organized as ephemeral horizontal relations that are always proliferating. Multiplicity celebrates plurality, proliferative modes of thinking, acting, and being rather than unitary, static, binary, and totalizing modes" (Martin & Kamberelis, 2013, p. 670). The research process that attempts to converge with the characteristics of the rhizome must be "forward moving, backward thinking, rhizomatic, iterative, and emergent endeavour, itself constantly on the move" (Childers, 2012, p. 752).

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[8] In Greek mythology Procrustes was a bandit and innkeeper in Attica who offered shelter to travellers. While the traveller slept, Procrustes tied him to the four corners of the bed. If the victim was tall and his body exceeded the limits of the bed, he sawed off the parts that protruded: the feet, the hands, the head… In the opposite case, he dislocated them with hammer blows and stretched them to make them fit. This is the origin of the concept of the "Procrustean bed" used to refer to a forced standardisation, or to an act of self-deception in the attempt to make everything match perfectly and appear before the spectator's eye according to our wishes.

If the compass served us as a metaphor of navigation to understand the arboreal research process and mode of knowledge, we can now refer to the radar with similar aims: the radar emits enough information (although not predictable beforehand) to advance without colliding with the elements (also in movement) that are encountered along the way, with the result that it "can help a researcher map possible directions but also to inquire about the unexpected" (Agee, 2009, p. 432). The radar refers to a movement whose components branch out in different directions, shaping "an ontology of becoming(s) rather than being. Reality is viewed as a continual process of flux or differentiation even though this fact is usually masked by powerful and pervasive illusory discourses of fixity, stability, and identity that have characterized most of western philosophy and theory since at least the Enlightenment. This ontology of becoming(s) enables (even urges) us to see things differently – in terms of what they might become rather than as they currently are" (Martin & Kamberelis, 2013, p. 670). Therefore, there is no map (territory) prior to journeying, or it is not the only form of representing reality[9].

This opens the door to methodological innovation where the data are seen as emergent. They question us, they hail us, they unsettle us so as to oblige us to revise the idea of finding, discovery and serendipity from a view of the datum as a process that becomes visible (as on the radar) through the acts of seeing, listening, performative interaction (a capacity now assigned to the data themselves): "We conceptualize data as a wave, as flow, as liquid; ever-changing, inconstant, unreliable, non-interpretable; as a dark forest. Data is already there and here, only partially accessible. Data may not need to be collected but may be lived, sensed, and done. […] Rather than conceptualize data as a potential source of information, we are interested in data for what it produces, how it moves and for how it can be lived and sensed by researchers, and how data makes us as people and researchers" (Benozzo, Bell & Koro-Ljungberg, 2013, p. 309).

In short, the metaphor of navigation using a radar (as well as the rhizomatic form of knowledge that it tries to make visible) refers us to a research process understood as an event that is processual (as it involves becoming), relational (involving the different human and non-human forces that intervene in its objectification) and performative (involving practices that contribute to the production of the event, its data and its moments). A research process that is creative, innovative and open to the specific configuration of the relations amongst representations, practices and discourses.

3. Exploring new routes: traditional practices under erasure

Adjusting to the rhizomatic form of knowledge leads us to think that "traditional methodological practices ought to be 'twisted and bent' (Spivak, 1993, p. xiv), contorted and placed under erasure even as they guide us" (Childers, 2012, p. 753). Winding, twisting, folding, even turning, are all actions that refer to a disruptive view of the regulating practices and concepts that operate in language according to a binary either/or type of logic, rather than as "a more cloudy distribution of circulating and ending possibilities" (Childers, 2012, p. 753). The disruptive reading that opens the door for us to certain possibilities goes hand-in-hand with the acceptance of two related principles: 1) vital monism that points to the continuum between nature/culture; and human/non-human; 2) post-humanist nomadism that decentres the figure of the human as the sole and original agent in the creation of meaning in order to understand it as part of a process of becoming in relation with the world (Braidotti, 2015; Barad, 2007).

Both principles are postulated facing the hierarchical dualism articulated by Cartesian objectivism that "for a long time explained questions related to knowledge in terms of an individual mind separated from the body and carnality confronting the external world" (Carrasco Segovia & Castro Varela, 2020, p. 67), so that the emphasis was placed on reason over other experiences that were considered to be "non-rational" or "pre-rational", and the notion of agency was limited to its humanist consideration. It is worth recalling that according to the traditional

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[9] In any case, it is the action that shapes both the territory and the map insofar as it is the dynamic product of that action.

humanist conception, which we can here equate with the arboreal form of knowledge, agency is understood to be an innate characteristic of a subject whose characteristics of freedom, will, intentionality, autonomy and reason enable her or him to act in and on the world (Mazzei, 2013, p. 733) based more on volition (desire and reasoned will) than on any conditioning that might be imposed on will itself. In this way, the attribution of agency presupposes the existence of human subjects (bearers and generators of information/knowledge) "who speak for themselves; subjects capable of knowing others; and subjects in charge of their desires and identifications" (Lather, 2009, p. 17). Human subjects are the site of agency, knowledge and the praxis of research.

The materiality of reality is always the object of knowledge, lacking agency insofar as it is only the product of human agency, the sole voice legitimised to represent those without voice, or stated differently, what is withheld from the discursive and non-discursive patterns that surround it and constitute it (Haraway, 1999)[10] . The methodological implication of this binary and representational essentialism involves assuming that people (authentic subjects of the research) "who speak (from a conscious center) give us (the researchers, also authentic) rational, coherent truths that serve as foundation (data) for data analysis and interpretation" (Youngblood Jackson, 2013, p. 742). Analysis and interpretation that, as essentialising practices, seek order and regularity, patterns of similarity and familiarity amongst the different aspects of reality under scrutiny so that these aspects can be defined in their common, shared, stable essence, and thus be named under a single code/category, "categories that supposedly possess coherent essences and consistent traits for theme-building and subsequent meaning-making […]. Thus, the practice of coding data that essentializes people and their experiences—and that leads to representations of the real and true knowledge—is an epistemological project flavored with humanism" (Youngblood Jackson, 2013, p. 742).

Based on this epistemological proposal, a methodological strategy (from the technical design of the research to the analytical procedure) is constructed that pivots on the centrality of the subject and her/his voice. The centrality of the subject and her/his voice is produced from the moment at which the voice (and presence) of the participants is taken as a datum/evidence/representation of a meaning (truth) that is there to be subjectively (re)constructed, (re)presented and transmitted by a rational, autonomous subject who is the source of will, thought and action. A subject that projects in her/his voice (speech, whatever the form it adopts, or whatever the form in which it is related/narrated) the authentic nature of her/his being[11]; to be sure, this is mysteriously captured by the listener/researcher thus strengthening the fiction of a meaning understood as a property/quality that is portable from one subject to another by the sole mediation of speaking (or in its case, narration).

It seems obvious to think that problematizing binary and representational logic entails a basic exercise of problematization of the language that has been acquired, learnt, taken for granted – "our mother tongue" or "our language with history" (Spivak,1993, p. 69 cited in St Pierre, 1997, p. 175) – to produce a different knowledge and produce it in a different form: "a different strategy of sense-making, one that might elude humanism's attempts to order what can never be contained". And in this new way of proceeding, we start by decentring the subject and the voice starting from a different (or widened) concept of agency, now understood as "an entanglement of research-data-participants-theory-analysis, as opposed to an innate attribute of an individual human being. In other words, agency to change the world and be changed by the world emerges within the intra-actions of multiple people and things and does not pre-exist those encounters" (Mazzei, 2013, p. 734). From here on, research designs are focused on the research event: an entanglement of living beings, objects, spaces, times and materials[12] that are

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[10] For a broader view of the ethical and political (not to say epistemological) implications that underlie the binary and representational logic of this schema of distancing, see: The problems of speaking for others (Linda Alcoff, 1991, Cultural Critique, 20, pp. 5-32).

[11] It is worth asking why what is said is more highly valued, as evidence, than what is written, drawn or done.

[12] Karen Barad reminds us that things and subjects are not the only materials, but also discourses, what is thought, what is imagined, what is possible and what is impossible.

reconfigured, interwoven, related and rearticulated on the basis of their interactions[13]. Therefore, we are facing research designs in which the search for symbolic meaning that a subject attributes to reality and to her/his experience is combined with an understanding of the event in which the intra-action takes place[14] ; that is, the assemblage between agencies that gives rise to meaning based on contingent articulation, situated spatiotemporally, of the connections between what is rational, symbolic and what is precognitive, irrational or lacking apparent meaning. All of this with the aim of capturing the continuous flow of everyday life and experience: shared experiences, daily routines, fleeting encounters, bodily movements, precognitive triggerings, practical skills, affective intensities, lasting impulses, unexceptional interactions… aspects/moments in which there are other forms of meaning, or no cognitively attributed symbolic meaning (Vannini, 2015, p. 4). In this way research designs are created that open the door to the recovery of moments of waiting or in-between moments[15]; moments that, in spite of their centrality for the emergence of serendipity, discovery, the emergence of meaning… are traditionally considered non-events and are therefore rejected, denied and combatted as they lack symbolic meaning and develop in a marginal time unfolded on the dead margins of the field work (Abad & Davila, 2020). In sum, events are examined because considered in their totality, and not only as a situation for extracting information based on the profiles of individuals, they inevitably emphasise not the instrumental levels, the drafts of actions and scripts and a priori conditions, but instead the possibility of alternative futures, the failures of representations, the contingencies of interventions and the effervescence with which things really happen (Vannini, 2015, p. 7). As a result, the idea of a datum is transformed from what is "given" to what is "emergent", relationally constituted in the research activity itself.

In light of what has been expounded, research designs should reject any separation between materiality and sociability, assuming a basic principle of relational materialism: each thought, each action, each encounter, each word emerges from a substratum of materiality that enables such phenomena to occur, and consequently our understanding of the material (nature) and the meaning (culture) must be inextricably connected (Vannini, 2015). The first consequence of all of this is the urgency of considering, in each research project, that all the practices, whether scientific, technological, creative, social, clinical or analytical, are natural cultural practices through which the material and the meaning are interwoven so that the methodological and technological design will have to be formulated from the outset from this position. At the same time, the specific qualities of each research practice constitute the specific form in which nature and culture come to interact so that the research designs will be creative, imaginative, open to the agency of otherness and to the connection between nature (materiality) and culture (meaning) (ibid, 2015).

Hence creativity, from the perspective of methodological innovation, includes an amalgam of resources and devices that range from inception to adaption and adoption: from the generation of prototypes that stimulate interactions (Michael, 2012) to the performative adaption of classical ethnography (Alexander, 2013; Denzin, 2003) and story completion (Lupton, 2021).

There is a common shared substratum in all these proposals of innovation that have been mentioned: the centrality of performativity. John David Dewsbury (2000, pp. 481, 490) reminds us that while representational theories study the mind and its operations (thoughts, ideas, motivations, urges, values, beliefs, attitudes, etc.) as prior conditions for taking action, non-representational models exclusively examine thought in action, concentrating on unpremeditated actions and interactions that are impulsive, semi-impulsive, non-introspective, pre-objective and

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[13] Here, we understand research events as systems/networks of action and, in this sense, full of transitivity: subject-subject; subject-object; object-object. It is this transitivity that enables us to understand agency as dispersed or distributed.

[14] Following Karen Barad (2003, 2007) we can understand the intra-actions in terms of relations and intersections, where the elements of meaning that emerge prove to be the consequence of the interwoven state of the different capacities of agency, in this way making it possible to theorise the social and the natural as a whole.

[15] To broaden the idea of field work shaped on the basis of the moments of waiting and/or in between moments, see the concept of waiting field of Dawn Mannay and Melanie Morgan (2015, pp. 174-175).

habitual (thought/discourse under construction). Because people, perspectives and things come into being in and because of events, that is, by being performed, which serves to underline the difficulty entailed in setting out from previously defined individual and structural profiles. This is because the subject is not something previously defined and constructed that patiently waits to be appropriated. It is the product of its invention, the consequence of its adaptation to a situation/event. The performativity of the experience, of the thought in action, is inevitably an experience embodied in a corporality that is not solely a container of knowledge, nor a mere object to be represented. Bodies are part of the assemblage of the event, subjects of knowledge that deploy their affective and sensorial potential in performativity (Dewsbury, 2000, pp. 482-485). There are two consequences that we can extract from this affirmation: on one side, research designs should cease to "read" the body, and its infinite representations, as if it were a text marked by the inscriptions of the person who sees, reads or interprets it; on the other, these designs should consider the body as an inscriber based on its capacity to move and affect other people and things. From the body as an inscribed text to the body as an inscribing agent, the performative experience, the research event, becomes multi-sensorial or, at least, revisits the hierarchy of the senses: from the primacy of the eye/sight, which gives rise to a body-screen unfolded in a dual space since the observing I is situated in a different space, normally opposite to that of the object of observation, to the deployment of other senses that give volume and texture to the body and its affects (Raquejo, 2020, p. 164).

4. Conclusion

In spite of their thematic differences the texts that make up this monograph share an interest in revisiting two terms that appear to be of key importance at the present socio-historical moment: culture and innovation. Regarding the first, there continues to be a conceptual tension that explodes the concept of culture, dispersing it towards more open and creative views. Out of this tension arises the revision of the second of the proposed concepts. Thus, innovation in the cultural field ceases to be understood solely as lineal and accumulative progress, and comes to be seen as an open and creative process.

Like dominoes that fall in an orderly way due to the momentum of one pushing against another, the revision of concepts that become analytically fundamental requires, at the least, rethinking the onto-epistemological bases from which their analytical potential is understood, which inevitably leads to the necessary reconsideration of the methodological strategy most suited to the onto-epistemological revision undertaken.

This has been the final aim of this article: to capture the role of the domino effect. With this aim we have dwelt on the presentation of two forms of knowledge that involve two strategic approaches to research: arboreal knowledge that advances in a lineal progression to discover (in the sense of uncovering, drawing back the veil covering it) what is "given"; and rhizomatic knowledge that is unfolded in research events performed in the here and now, enabling us to encounter what is new, unexpected, emergent… in sum, what we didn't know we were looking for.

In both cases an appeal is made to the logic of discovery as the final and necessary aim of the research. But this is done with differentiating nuances that point to different modes of conceiving methodological innovation, or at least to specific forms of combining those modes. In the first case, discovery is valued in terms of uncovering what already existed in its unique and fixed form, although remaining hidden, to which end we faithfully follow the methodologically established route, and adjustments (adoption and adaptation), when these occur, are assumed to be improvements in the procedure that enable a faithful map of the finding to be sketched[16]; a valuable finding that is produced in the progressive deployment of the search procedure. In the

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[16] A logic of representation that is legitimised the better the map fits the territory, making the representation into a carbon copy or reproduction of reality.

second case, the discovery is read as serendipity, a concept that according to the proposal of Robert Merton (1948, p. 506) is defined as "a pattern that involves the unanticipated, anomalous and strategic datum which exerts pressure upon the investigator for a new direction of inquiry which extends theory". Discovery is outlined here as the capacity to notice something while on the move, or to take note of something that was not sought after or was not expected, or the ability and sagacity to see everything that was not expected to be seen in such a way, or to hear what is transmitted on the margins of the voice and textuality[17]. To achieve this requires promotion of the conditions and opportunities for generating open, creative and innovative research designs, closer to the logic of inception/invention. This means creating research events that make it possible, through every type of technical and analytical bricolage, to map[18] the form(s) in which what is unexpected emerges, always in the here and now of a research event/experience open to future potentials that are not determined a priori, materialised and embodied in gestures and micro-gestures of relationship with the human and nonhuman, multi-sensorial and, in any case, hybrid setting, since it is designed from the articulation amongst practices, discourses and representations as well as from the articulation of different disciplines, ranging from sociology to contemporary art and anthropology.

References

Abad Miguélez, B., & Davila Legerén, A. (2020). Infortunio de la investigación social cualitativa en la era del capitalismo académico. *New Trends in Qualitative Research*, *4*, 82-95. https://doi.org/10.36367/ntqr.4.2020.82-95

Agee, J. (2009). Developing qualitative research questions: a reflective process, *International Journal of Qualitative Studies in Education*, *22*(4), 431-447. https://doi.org/10.1080/09518390902736512

Alcoff, L. (1991). The problem of speaking for others. *Cultural Critique*, *20*(Winter, 1991-1992), 5-32. https://doi.org/10.2307/1354221

Alexander, B. K. (2013). "Etnografía performativa. La representación y la incitación de la cultura". In Norman K. Denzin & Y. S. Lincoln (Comps.), *Manual de Investigación Cualitativa* (Volumen III, pp. 94-153). Editorial Gedisa.

Barad, K. (2003). Posthumanist performativity: toward an understanding of how matter comes to matter. *Signs: Journal of Women in Culture and Society*, *28*(3), 801-831.

— (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press.

Barnett, A. (2014). The Creative Analytic Paradigm and Generative Social Research within the Context of the Early-Years/Kindergarten Physical Learning Environment. *American Journal of Educational Research*, *2*(5), 283-290. http://pubs.sciepub.com/education/2/5/8/index.html

Benozzo, A.; Bell, H., & Koro-Ljungberg, M. (2013). Moving Between Nuisance, Secrets, and Splinters as Data. *Cultural Studies ↔ Critical Methodologies*, *13*(4), 309-315. https://doi.org/10.1177/1532708613487878

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[17] At this moment the practice of rhizomatic research is drenched in new nuances as it is formulated in terms of metis. By metis the ancient Greeks understood a form of knowledge suitable for praxis in changeable, living, confusing and complex settings; a form of knowledge in which, from the cunning and artful position of the person who, in this case, carries out research; fantasy, imagination, creativity, prudence and sagacity are combined in order to develop a practical knowledge attached to the painstaking analysis of situations and settings of realisation and, of course, a willingness to revisit the initial goals should this be necessary.

[18] We have moved from the noun (map=result of the research) to the verb that underscores the process and the action (mapping). To give an example, we move from analysing the apprenticeship (result), to additionally consider the process of learning.

Braidotti, R. (2015). *Lo posthumano*. Editorial Gedisa.

Carrasco Segovia, S., & Castro Varela, A. (2020). Más allá de la máquina antropocéntrica: hacia una educación e investigación posthumanistas (pp. 67-81). In J. M. Sancho Gil, F. Hernández Hernández, L. Montero Mesa, J. de Pablos Pons, J. I. Rivas Flores & A. Ocaña Fernández (Coords.) *Caminos y derivas para otra investigación educativa y social.* Editorial Octaedro.

Childers, S. M. (2012). Against Simplicity, Against Ethics: Analytics of Disruption as Quasi-Methodology *Qualitative Inquiry*, *18*(9), 752-761. https://doi.org/10.1177/1077800412453015

Deleuze, G., & Guattari, F. (1987). *A thousand Plateaus: Capitalism and Schizophrenia* [trans. Brian Massumi]. University of Minnesota Press.

Denzin, N. K. (2003). The call to performance. *Symbolic Interaction*, *26*(1), 187-207. https://doi.org/10.1525/si.2003.26.1.187

Dewsbury, J. D. (2000). Performativity and the event: enacting a philosophy of difference. *Environment and Planning D: Society and Space*, *18*, 473-496. https://journals.sagepub.com/doi/pdf/10.1068/d200t

Greene, J. C. (2013). On rhizomes, lines of flight, mangles, and other assemblages. *International Journal of Qualitative Studies in Education*, *26*(6), 749-758 https://doi.org/10.1080/09518398.2013.788763

Haraway, D. (1999). Las promesas de los monstruos: una política regeneradora para otros inapropiados/bles, *Política y sociedad*, *30*, 121-163 [Translated by Elena Casado. Reproduced with the permission of Routledge, Inc., from C. Nelson, P. Treichíer and L. Orossberg (Eds.), (1991), Cultural Studies. London and New York] https://revistas.ucm.es/index.php/POSO/article/view/POSO9999130121A

Hustak C., & Myers, N. (2012). Involutionary momentum: Affective ecologies and the sciences of plant/insect encounters. *Differences*, *23*(3), 74-118. https://doi.org/10.1215/10407391-1892907

Koro-Ljungberg, M. (2016*). Reconceptualizing Qualitative Research. Methodologies without Methodology*. Sage Publications.

Krehl, M., Thomas, E., & Bellingham, R. (2020). The vitality of theory in research innovation. In M. Krehl, E. Thomas & R. Bellingham (Eds.), *Post-Qualitative Research and Innovative Methodologies* (pp. 1-16). Bloomsbury Publishing.

Lasén, A., & Casado, E. (2014). *Mediaciones tecnológicas. Cuerpos, afectos y subjetividades*. Universidad Complutense y Centro de Investigaciones sociológicas.

Lather, P. (2009). Against empathy, voice and authenticity. In A. Jackson & L. Mazzei (Eds.), *Voice in Qualitative Inquiry: challenging conventional, interpretive and critical conceptions in qualitative research* (pp. 17-26). Routledge.

Law, J. (2004). *After Method. Mess in social science research*. Routledge.

Lupton, D. (2021). 'Things that matter': poetic inquiry and more-than-human health literacy. *Qualitative Research in Sport, Exercise and Health*, *13*(2), 267-282. https://doi.org/10.1080/2159676X.2019.1690564

Mannay, D., & Morgan, M. (2015). Doing ethnography or applying a qualitative technique? Reflections from the "waiting field". *Qualitative Research*, *15*(2), 166-182. https://journals.sagepub.com/doi/10.1177/1468794113517391

Martin, A. D., & Kamberelis, G. (2013). Mapping not tracing: qualitative educational research with political teeth. *International Journal of Qualitative Studies in Education*, *26*(6), 668-679. http://dx.doi.org/10.1080/09518398.2013.788756

Mazzei, L. A. (2013). A voice without organs: interviewing in posthumanist research. *International Journal of Qualitative Studies in Education*, *26*(6), 732-740. https://doi.org/10.1080/09518398.2013.788761

Merton, R. K. (1948). The bearing of empirical research upon the development of social theory. *American Sociological Review*, *13*(5), 505-515. https://doi.org/10.2307/2087142

Michael, M. (2012). De-signing the object of sociology: toward an 'idiotic' methodology. *The Sociological Review*, *60*(S1), 166-183. https://doi.org/10.1111/j.1467-954X.2012.02122.x

Pacho, J. (2009). La paradoja de la innovación. Aspectos axiológicos y espistémico-culturales. In M. J. Maidagán, I. Ceberio, L. Garagalza & G. Arrizabalaga (Eds.), *Filosofía de la Innovación. El papel de la creatividad en un mundo global* (pp. 13-44). Editorial Plaza y Valdés.

Piazuelo Lamote de Grignon, C., & YProductions. (2008). *Innovación en Cultura: Una Aproximación Crítica a la Genealogía y Usos del Concepto*. YProductions.

Raquejo, T. (2020). Caminar con arte. Mapas colectivos del entorno. In T. Raquejo (Coord.*), El arte de corporeizar el entorno. Prácticas artísticas para una pedagogía del sentir* (pp. 155-172). Editorial Aula Magna, McGraw-Hill Interamericana de España S.L.

Salazar, N. B. (2022). Anthropologies of the Present and the Presence of Anthropology. *Etnografia*. 2(16), 6-24. https://doi.org/10.31250/2618-8600-2022-2(16)-6-24

Shumack, K., & Tuckwell, J. (2010). *Mapping as Assemblage for Cultural Research*. University of Western Sydney, Institute for Culture and Society. Occasional Paper Series, *1*(5), 1-18. https://researchdirect.westernsydney.edu.au/islandora/object/uws:11240/datastream/PDF/view

Slaughter, S., & Leslie, L. (1997). *Academic Capitalism. Politics, Policies and the Entrepreneurial University*. Johns Hopkins UP.

Spivak, G. C. (1993). *Outside in the teaching machine*. Routledge.

St. Pierre, E. (1997). Methodology in the fold and the irruption of transgressive data. *International Journal of Qualitative Studies in Education*, *10*(2), 175-189. https://doi.org/10.1080/095183997237278

Taylor, C., & Coffey, A. (2008). *Innovation in Qualitative Research Methods: Possibilities and Challenges.* Cardiff School of Social Sciences, Paper 121, 1-25. https://orca.cardiff.ac.uk/id/eprint/78184/1/wp121.pdf

Torrance, H. (2019). Data as Entanglement: New Definitions and Uses of Data in Qualitative Research, Policy, and Neoliberal Governance. *Qualitative Inquiry*, *25*(8), 734-742. https://doi.org/10.1177/1077800418807239

Vannini, Ph. (2015). *Non-Representational Methodologies. Re-Envisioning Research.* Routledge.

Wentzer, T. S., & Mattingly, C. (2018). Toward a new humanism: An approach from philosophical anthropology. *Hau: Journal of Ethnographic Theory*, *8*(1–2), 144-157. https://www.journals.uchicago.edu/doi/pdf/10.1086/698361

Wiles, R., Pain, H., & Crow G. (2010). *Innovation in qualitative research methods: A narrative review*. University of Southampton; ESRC National Centre for Research Methods. NCRM Working Paper Series 03/10, 1-32. https://eprints.ncrm.ac.uk/id/eprint/919/1/innovation_in_qualitative_research_methods.pdf

Woolgar, S. (1991). *Ciencia: abriendo la caja negra*. Anthropos Editorial.

Youngblood Jackson, A. (2013). Posthumanist data analysis of mangling practices. *International Journal of Qualitative Studies in Education*, *26*(6), 741-748. http://dx.doi.org/10.1080/09518398.2013.788762

Research Article

La irrupción de los traductores neuronales en sistemas de actividad lingüística reglada: Distorsiones, conflictos e innovaciones

The emergence of neural translators in regulated language activity systems: Distortions, conflicts and innovations

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Resumen: La inteligencia artificial basada en redes neuronales está suponiendo una revolución en la tecnologización de las actividades lingüísticas de todo tipo. El procesamiento o la comprensión del lenguaje natural y el reconocimiento automático de habla y sus aplicaciones van a modificar las relaciones y actividades lingüísticas y la comunicación en general. Presentamos en este artículo el planteamiento y primeros pasos de una investigación en curso sobre el impacto de la Inteligencia Artificial y, en particular, sobre los desafíos y oportunidades de una sus aplicaciones, los traductores neuronales en el caso de una lengua minoritaria en proceso de revitalización, el euskera. El estudio se centra en sistemas de actividad funcionales y reglados que tienen por objetivo expreso tanto las competencias y hábitos lingüísticos como las capacidades colectivas para el uso vivo de la lengua vasca. Se examina el impacto, las distorsiones e innovaciones que está tecnología está produciendo y las que puede producir en un futuro cercano atendiendo a la tensión entre objetivos, normas y recursos.

Palabras clave: traductores neuronales; euskera; revitalización de lenguas minoritarias; sistemas de actividad reglada.

Abstract: Artificial intelligence based on neural networks is assuming a revolution in the technologization of linguistic activities of all kinds. The processing or understanding of natural language and the automatic recognition of speech and its applications will change language relations and activities and communication in general. In this article we present the approach and first steps of an ongoing research on the impact of artificial intelligence and, in particular, on the challenges and opportunities of its applications, neural translators in the case of a minority language in the process of revitalization, the Basque language.The study focuses on functional and regulated activity systems that explicitly target both language skills and habits and collective capacities for the live use of the Basque language. It examines the impact, distortions and innovations that technology is producing and those that it can produce in the near future in the light of the tension between objectives, standards and resources.

Keywords: neural translators; basque; revitalization of minority languages; regulated activity systems.

1. Introducción

En este artículo presentamos el planteamiento general y los primeros pasos de una investigación en curso sobre el impacto de la Inteligencia Artificial (en adelante, IA) y, en particular, sobre los desafíos y oportunidades de una sus aplicaciones, los traductores neuronales (en adelante, TN). Aunque el objeto general del estudio es el impacto de los TN en el uso y valor (o estatus) social de una lengua minorizada, el euskera, en el contexto de las políticas, prácticas e iniciativas para su revitalización, la investigación se centra en sistemas de actividad funcionales y reglados y examina el impacto, las distorsiones e innovaciones que esta tecnología está produciendo y las que puede producir en un futuro cercano.

Nos preguntamos qué ocurre cuando se introducen los traductores neuronales en sistemas de interacción reglados que tienen como objetivo y parte fundamental de su desarrollo tanto las aptitudes, habilidades o competencias lingüísticas en la lengua minoritaria como el aumento y la estructuración de las capacidades colectivas de uso de la lengua en proceso de revitalización.

Para ello, consideramos prioritario ser sensibles a los cambios prácticos que la interacción con estas tecnologías y su mediación en la comunicación y vida social están produciendo en las competencias, recursos y capacidades lingüísticas. Sobre esa base pretendemos construir un marco de reflexión acerca de cómo afectará a la definición, desarrollo, objetivos, medios, etc., de la revitalización del euskera, tanto en general como en sectores y actividades más concretos (sanidad, educación, etc.).

El proyecto en el que se integra este estudio prevé tres fases: una inicial en la que se realizará una aproximación al estado actual mediante entrevistas, coloquios y debates con expertos en IA que trabajan en el desarrollo de traductores y con profesionales de ámbitos de uso donde se pueden dar los conflictos mencionados (educación secundaria, universidad, sanidad, medios de comunicación, traducción, etc.). En una segunda fase se seleccionarán varios sistemas de actividad y se diseñará, junto con los actores, modelos abiertos de intervención en el uso de los traductores, con el objetivo de experimentar nuevos usos, nuevas reglas y nuevas capacidades. En la tercera fase se realizarán las intervenciones, se analizarán los resultados y se sistematizarán modelos de innovación basados en la investigación.

En este contexto, este artículo expone los resultados iniciales de la primera fase, además de dar cuenta de las reflexiones iniciales acerca del diseño metodológico y teórico. Aunque estemos en los pasos iniciales de la investigación, se ha desarrollado un ejercicio de reflexión sobre las disrupciones o rupturas, tensiones e innovaciones derivadas de los TN, sobre el aumento de capacidades que desbordan los sistemas de actividad, sus normas, objetivos y medios, y sobre las adaptaciones innovadoras de dichos sistemas.

El articulo está estructurado tal y como se detalla a continuación. En el segundo apartado explicaremos brevemente en qué consiste la IA basada en redes neuronales y aprendizaje profundo. En los siguientes apartados, abordaremos el impacto de los TN en las lenguas minoritarias o de bajos recursos, y en el proceso de revitalización del euskera. Por último, discutiremos el enfoque teórico más adecuado para la investigación.

2. Inteligencia Artificial, Redes Neuronales y Procesamiento de Lenguaje Natural

La IA es un amplio campo de investigación científica y aplicación tecnológica que aúna el estudio y la construcción de "entidades inteligentes" (Russell & Norvig, 2010, p. 1). La capacidad de procesamiento de información y de cálculo de la IA ha superado la simple rutina de seguimiento de reglas o heurísticos y el cálculo estadístico, gracias sobre todo al desarrollo de la inteligencia computacional, el aprendizaje automático (machine learning) y el aprendizaje profundo que, en síntesis, permiten el desarrollo de sistemas inteligentes complejos capaces de aprender en y de su propio desempeño. Entre las aplicaciones más relevantes de la inteligencia computacional y el aprendizaje automático encontramos, precisamente, las redes neuronales.

En cuanto al desarrollo tecnológico, la IA es uno de los ejemplos más relevantes de los que Clayton Christensen (1997) denominó innovación disruptiva. Aplicado a las tecnologías,

Christensen se refería a la capacidad de una tecnología para crear valor desde segmentos de mercado infravalorados o incluso de abrir nuevos mercados rompiendo con las previsiones y los marcos comúnmente aceptados. La IA, el aprendizaje profundo y las redes neuronales tienen ese efecto no solo desde el punto de vista económico. Los efectos sociales, psicológicos, culturales, etc., de estas innovaciones tecnológicas están aún muy lejos de ser comprendidos, pero hay pocas dudas sobre la capacidad de la IA para trastocar previsiones y tendencias sobre el cambio social y cultural, y para seguir incrementando su valor e impacto exponencialmente.

Por todo ello, el campo de la IA, más allá del desarrollo tecnológico, implica estudios sobre procesos cognitivos y conductuales, así como numerosas controversias filosóficas, éticas y científicas. Sociólogos y filósofos como Eric Sadin (2017, 2020), Geertze Lovink (2019), Bernad Stiegler (2001, 2015), Yuk Hui (2020) o Domingue Cardon (2018) entre muchos otros, han analizado desde un punto de vista crítico y pesimista los cambios que han derivado del complejo formado por las TIC, Internet y la Inteligencia Artificial. Han dado continuidad a una antigua línea de pensamiento filosófico sobre técnica y tecnología que agrupa a Heidegger, Günther Anders, o Lewis Mumford y nos habla de un cambio de gran escala, un cambio de época o civilización.

Otros han puesto el acento en los cambios que las innovaciones tecnológicas van a producir en las capacidades cognitivas y sociales (Bridle, 2020; Carr, 2019; Lash, 2005; Wolf, 2018). Y otros muchos han publicado estudios globales desde la crítica de la economía política de la IA, la infraestructura terrestre de la nube, los derechos protegidos y privados, el acceso universal, lo común de la lengua, etc. (Srnicek, 2019; Srnicek & Williams, 2017; Steinhopff, 2021).

Los cambios tienen, por supuesto, un carácter ambivalente y dan lugar a valoraciones antagónicas: se puede hacer hincapié en la parte negativa del impacto en las competencias personales o en las formas de vida actuales, o en la adaptación colectiva y personal más o menos resiliente, o en la celebración de las nuevas capacidades, potencias y comodidades tecno-sociales. Se tome la posición que se tome, hay algo que no podemos ignorar: muchas de esas innovaciones tecnológicas se han extendido con una inmensa rapidez y han superado todo tipo de "obstáculos previsibles" gracias a las virtualidades o affordances que los usuarios han sabido encontrar desde sus primeras interacciones con esas tecnologías –es el caso de los teléfonos móviles y de su evolución, desde un teléfono portátil al dispositivo multifuncional, híbrido de ordenador y teléfono, que es hoy en día. Esta es la perspectiva inicial con la que nos acercamos a los traductores basados en redes neuronales, dado que las redes neuronales vienen "cargadas" de affordances.

Las redes neuronales son sistemas o modelos de computación que desarrollan combinaciones de parámetros, de modo que pueden darnos la combinación más idónea o ajustada al resultado deseado. La unidad básica, denominada metafóricamente "neurona", es una unidad de cálculo, una suma ponderada de los datos o parámetros de entrada a la que se aplica una función no lineal. Las redes están compuestas por varias neuronas y varias capas (que hacen aumentar la "profundidad" de la red), de manera que se hacen cálculos sobre los resultados de los cálculos anteriores, corrigiendo o ajustando esos mismos resultados. Las neuronas están constantemente colaborando entre sí y mediante el algoritmo de "propagación hacia atrás" o "retro-propagación" pueden volver sobre los cálculos y conexiones realizados en la red y reformularlos para obtener mejores resultados.

La capacidad de computación de las redes hace que mediante combinaciones de los datos iniciales sean capaces de encontrar información "oculta" y puedan "adaptarse" (es decir, usar los nuevos datos en los calculo posteriores) y mejorar su rendimiento. Por eso mismo se habla de entrenamiento de las redes, de aprendizaje de máquina, de aprendizaje profundo (el aprendizaje automático a través de la retro-propagación en múltiples capas), etc. Es decir, las redes "aprenden" de sus "experiencias", mejoran su rendimiento y se adaptan a nuevas demandas y situaciones.

Pero como hemos apuntado más arriba, más allá del funcionamiento técnico y de la arquitectura de las redes neuronales, está la pregunta sobre sus utilidades (dejamos a un lado su

historia social, para qué fueron diseñadas en principio y cómo han evolucionado). Las redes neuronales se están aplicando en actividades concretas como diagnóstico médico, cálculo financiero, robótica, control de sistemas automáticos, predicción de procesos, reconocimiento de patrones (de personas o de vehículos), minería de datos, etc. En general, para diagnósticos, pronósticos, o toma de decisión en situaciones complejas. Y, en cuanto a aplicaciones técnicas destacan el procesamiento de imágenes y el procesamiento de lenguaje natural (en adelante, PLN).

El procesamiento de lenguaje natural da nombre a todas las tareas implicadas en la interacción entre máquinas y seres humanos mediante el lenguaje natural. Para que las máquinas puedan usar las lenguas naturales deben ser capaces de procesar y analizar grandes cantidades de "dato lingüístico natural". Tras dos periodos de PLN en que el procesamiento se basaba en la aplicación de normas y cálculo estadístico, hoy en día el PLN se basa en general en redes neuronales. La extensión y mejora de las redes neuronales está siendo meteórica, en el caso de la traducción, por ejemplo, la primera publicación sobre aprendizaje profundo aplicado a la traducción es de 2014 (Bahdanau, Cho & Bengio, 2014), pronto se popularizó y se hicieron mejoras en su arquitectura, en 2017 se presentó el modelo Transformer de aprendizaje profundo (Vaswani et al., 2017), un año después se presentaba el traductor en euskera MODELA.

El PLN engloba la comprensión y generación de lenguaje natural (NLU y el NLG respectivamente en su acrónimo en inglés). Áreas de este último son los sistemas de reconocimiento del habla (ASR), como los integrados en los asistentes de voz de Google o Amazon o los chatbots, y los sistemas de síntesis del habla capaces de leer un texto (TTS) y los modelos de producción de textos, como el conocido GTP-3 de OpenAI (Generative Pre-trained Transformer 3). Entre las tareas que realizan estos sistemas están la minería de textos, extracción de información, la realización de resúmenes, análisis y clasificación de documentos, creación de diccionarios, el filtrado de informaciones, análisis de sentimientos, inferencia de textos, y muchos más. Y, por supuesto, la traducción entre lenguas naturales.

Toda esta tecnología de IA y su rápido desarrollo han dado lugar a numerosas previsiones y elucubraciones acerca de lo que está por llegar. Los traductores neuronales no se limitarán al modelo actual (aplicaciones integradas o no en servicios de Internet, etc.). Las tecnologías de PLN tienden a ensamblarse en sistemas más complejos con utilidades múltiples como la traducción directa de entrevistas en video-llamada, o subtitulación automática de contenidos audiovisuales, o traducción con la misma voz del locutor en varios idiomas[1].

En ese sentido, se pueden prever varias tendencias: se extenderán los chatbots en numerosos trabajos y servicios, aumentará la comprensión emocional o empática en la evaluación y resolución de situaciones; las interfaces se irán "invisibilizando" e "inmaterializando" gracias a la nanotecnología, el diseño emocional o integrado, o la utilización del cuerpo como interfaz o joystick; los servicios y monitorizaciones se individualizarán , con un posible efecto de hiperindividualización de control de parámetros de salud o biométricos; extensión de la "conversación" entre máquinas, interconexiones en sistemas cada vez más complejos (domotización, automatización de plantas de producción, etc.)

Como tendencia general, Eric Sadin (2020, p. 88) ha señalado que "todos los objetos y todas las superficies nos hablarán" o que cada vez serán más los dispositivos tecnológicos que decidirán por las personas, anticipando incluso sus "deseos". Los chatbots, los asistentes virtuales o todo tipo de objeto y máquinas dotados de IA mantendrán conversaciones, discusiones, nos aconsejarán, indicarán qué hacer, o simplemente nos prescribirán, con o sin nuestro conocimiento consciente, cursos de acción. Todas esas relaciones, como hemos dicho, se harán en lenguaje natural, lo cual, se pronostica, afectará a nuestras competencias cognitivas y lingüísticas. Este es

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[1] Google IA presentó en 2019 Translatotron, programa que traduce reproduciendo la voz original y que se puede aplicar automáticamente a retransmisiones en vivo. Véase: https://ai.googleblog.com/2019/05/introducing-translatotron-end-to-end.html

un tema polémico y recurrente desde la integración de la informática y las TICs en la vida cotidiana y en la educación. Son muchas las preguntas que los investigadores se plantean respecto a los cambios que estas tecnologías acarrearán en el futuro: ¿Qué le ocurrirá a la lectura-escritura y a las habilidades cognitivas ligadas a esas competencias lingüísticas? ¿Qué ocurrirá si solo mantenemos relaciones orales con nuestro entorno tecnológico? ¿Cómo afectará a la memoria o al razonamiento el uso intenso de dispositivos y aplicaciones que realizarán las tareas cognitivas por nosotros? ¿Cuáles son, cuáles serán, las nuevas habilidades digitales? ¿Cómo y quién las capitalizará? El alcance de nuestra investigación está lejos de poder responder a estas cuestiones, pero es este tipo de especulación de donde parte la investigación que presentamos.

3. Las lenguas ante la digitalización y la IA

La IA supone nuevas formas de aprendizaje y entrenamiento de las habilidades y competencias cognitivas tenidas por básicas, formas que según algunos autores pueden debilitar esas competencias (Bridle, 2020; Carr, 2011, 2014), reforzar otras e incluso hacer surgir nuevas competencias (Reed, 2020; OECD, 2021). Un ejemplo clásico es el de lectura o la comprensión lectora, asociada a su vez al pensamiento crítico, la empatía o la reflexión. Algunos estudios señalan que en una generación se perderá la capacidad de leer un texto (Crawford, 2015), una tendencia cuyos síntomas se constatarían en el aumento de déficits de concentración o el analfabetismo funcional debidos a la pérdida de la cultura de la lectura (Wolf, 2018, 2008).

De todas formas, la mediación tecnológica o tecnologización de las lenguas no es nueva, no partimos de lenguas "a-tecnológicas", la lengua natural es de hecho una lengua mediada por tecnologías "socio-lingüísticas" (desde útiles como diccionarios o gramáticas, a espacios e instituciones sociales como los medios de difusión y comunicación que han estandarizado lenguas o jerarquizados modos de hablar…). Así como Walter J. Ong (2002) propuso estudiar las relaciones entre oralidades pre-escritura y nuevas oralidades, creemos que este tipo de estudios deben enfocarse en las innovaciones y disrupciones en los modos de vida tecnológicos (Lash, 2005), sin presuponer estados lingüísticos pre o a-tecnológicos, sino analizando las transformaciones y derivas de la lengua en sus formas de tecnologización.

Nos encontramos, de todas formas, ante una situación de incertidumbre que afecta a las competencias lingüísticas y al valor y uso social de las lenguas particulares. Tal como ocurrió con la imprenta y la cultura del libro, el acceso a la digitalización y la IA se ha convertido en una necesidad para las comunidades lingüísticas. La presunción básica y generalizada es que no habrá vida social o cultural, ni desarrollo económico o tecnológico sin mediación digital y que el acceso a esa mediación es y será un campo de tensiones. La competencia entre lenguas en los mercados culturales audiovisuales, tecnológicos o, incluso, académicos, anuncia una fuerte jerarquización y capitalización de las lenguas, además de dependencias y conflictos multinivel (por ejemplo, acerca de la propiedad de los productos y obras realizadas mediante IA, o sobre el acceso de la ciudadanía a unas tecnologías que serán imprescindibles en muchas facetas de la vida social y personal).

La preocupación por la digitalización no es exclusiva de las lenguas minoritarias. En el caso del castellano, una de las lenguas con más hablantes del mundo, los proyectos e iniciativas inciden en esa línea. En 2019, la RAE en colaboración con Telefónica y las grandes empresa tecnologías (Google, Amazon, Microsoft, Twitter y Facebook) puso en marcha el proyecto LEIA, para impulsar el «buen uso de la lengua española en el universo digital y, especialmente, en el ámbito de la inteligencia artificial y las tecnologías actuales» (RAE, 2019). En 2021 la Biblioteca Nacional de España y el Barcelona Supercomputing Center (BSC, 2021) presentaron MarIA, el primer sistema de IA masivo y experto capaz de comprender en lengua española. En marzo de 2022 el Gobierno español aprobó el Proyecto Estratégico para la Recuperación y Transformación Económica (PERTE) "Nueva economía de la Lengua" para aprovechar el «potencial del español y de las lenguas cooficiales como factor de crecimiento económico y competitividad internacional en áreas como la inteligencia artificial, la traducción, el aprendizaje, la divulgación cultural, la

producción audiovisual, la investigación y la ciencia». En la memoria ejecutiva se argumenta que cada vez son más las aplicaciones «donde el uso intensivo de las tecnologías de la información y de la comunicación, procesamiento del lenguaje natural y la traducción automática resultan críticas para dotar a la ciudadanía de nuevos servicios avanzados y optimizar procesos productivos» (Gobierno de España, 2020, p. 3).

La tensión entre las oportunidades y los riesgos de la IA y el PLN se agudizan en el caso de las lenguas minoritarias o de bajos recursos. A la falta de recursos ante la globalización de la producción audiovisual o de los mercados culturales en general, se le suman las dificultades para el acceso a la IA o la dependencia de grandes plataformas y empresas tecnológicas. Sin embargo, al mismo tiempo, la IA también puede ayudar en la difusión de productos culturales más allá de la comunidad de hablantes o colaborar en la revitalización lingüística en la propia comunidad.

Estos cambios tecnológicos no se han producido al margen de cambios de carácter, sociales, culturales, económicos, etc. Estos cambios han modificado sensiblemente el contexto en el que durante las últimas décadas se han desarrollado los proyectos e iniciativas de revitalización lingüística (Lewis & Royles, 2018, p. 504), que habían sido pensados en marcos sociales menos tecnologizados y menos individualistas (Lewis & McLeod, 2021). En este contexto, se ha hablado de la muerte digital de las lenguas, una lengua que no tiene cabida en el mundo digital no podrá sobrevivir, perderá toda su fuerza vital y desaparecerá (Kornai, 2013).

Aunque en 2013 András Kornai se referiría sobre todo a la presencia de las lenguas en Internet, los retos de la IA son los mismos: las lenguas que no accedan a la IA corren el peligro de perder funcionalidad, prestigio, o uso y competencia entre las nuevas generaciones. Kornai concluía que la gran mayoría de los idiomas del mundo (hasta un 95 %) ya habían perdido la capacidad de ascender al campo digital (Kornai, 2013). En 2012, el informe de META-NET, Alianza Tecnológica Multilingüe de Europa, preveía que el euskera, junto con otras 21 lenguas europeas, estaban en peligro de extinción digital (Rehm & Uszkoreit, 2012). Sin embargo, desde entonces la IA ha provisto de herramientas que podrían servir para evitar la desaparición de las lenguas ante la presión de la digitalización[2], al tiempo que se han ido elaborando nuevos indicadores lingüísticos en Internet (Bromham et al., 2021; Pimienta, 2021; Prys et al., 2021).

4. Situación sociolingüística y nivel de digitalización del euskera

La población de habla vasca se extiende por un territorio bajo dos administraciones estatales y varias administraciones sub-estatales con diferentes situaciones, leyes y políticas lingüísticas (Comunidad Autónoma Vasca, Comunidad Autónoma de Navarra, en territorio español y la Comunidad de aglomeración del País Vasco en territorio francés). Según la VI Encuesta Sociolingüística (Gobierno Vasco, 2016) unas 750 000 personas saben euskera, 28,4 % de la población mayor de 16 años, pero solo un 16,5% lo usa intensivamente. En los últimos 25 años el uso ha aumentado 3 puntos, pero en los diez últimos no ha variado. La UNESCO clasifica la lengua vasca como vulnerable en su Atlas de lenguas en peligro (Moseley & Alexandre, 2010)[3].

El Gobierno Vasco ofrece una serie de indicadores para hacer un seguimiento a la vitalidad digital del euskera y su uso, así como del desarrollo de la IA en euskera: uso en redes sociales, webs de referencia en euskera, oferta lingüística en aplicaciones móviles, servicios web, herramientas básicas y sistemas operativos, usuarios de Wikipedia en euskera, etc., (Gobierno Vasco, s.f.). Según esos indicadores, en el año 2020 el 14% de los usuarios –especialmente los jóvenes— utilizó el euskera en redes sociales, solo un 5 % de los mensajes de Twitter fueron en

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[2] Véase, por ejemplo, el Kit de herramientas para idiomas minorizados y de bajos recursos de Col·lectivaT y el Centro Sefardí de Estambul, en https://language-toolkit.readthedocs.io/es/latest/index.html. Para una síntesis de la situación digital de las lenguas minoritarias y regionales de Europa, veáse Miriam Gerken (2020), Facilitating the implementation of the European Charter for Regional or Minority Languages through artificial intelligence, disponible en: https://rm.coe.int/min-lang-2022-4-ai-and-ecrml-en/1680a657c5

[3] Esa clasificación se debe en parte a la inmersión lingüística en la escuela, ya que vulnerables son aquellas lenguas que son habladas por la mayoría de las generaciones más jóvenes, pero restringidas a ciertas áreas (e.g. la familia o la escuela).

euskera (frente a un 80 % en castellano, un 11 % en francés o un 4% en inglés), Wikipedia cuenta con unos 400.000 artículos en euskera (por número de artículos el euskera ocupa el puesto 34 entre las lenguas de Wikipedia), por último, de los servicios Web, plataformas, APPs, sistemas operativos y herramientas básicas más usadas en Europa la mitad está disponible en euskera.

El volumen de mercado que nos indican los datos anteriores ha hecho que la inversión y los esfuerzos por avanzar en la digitalización del euskera, liderados por las instituciones públicas y el movimiento social y se enmarquen en las políticas e iniciativas por la revitalización del euskera. El desarrollo de la digitalización del euskera ha sido liderado por el dinamismo y la implicación de varios agentes, que han sido los que, entre otras muchas aportaciones, han desarrollado los traductores neuronales. En una breve exposición de la situación del euskera ante la IA y del desarrollo de las tecnologías lingüísticas en euskera en los últimos veinte años, I. Leturia y J. Aztiria analizan varios proyectos[4], la mayoría financiados por el Gobierno Vasco a través de convocatorias específicas (Etortek, Elkartek, etc.). En todo ese camino, dicen, han colaborado Vicomtech, Tecnalia, los grupos de investigación Ixa y Aholab de la Universidad del País Vasco (UPV/EHU) y la Fundación Elhuyar (Leturia & Aztiria, 2021, p. 84)[5]. Estos son, pues, los principales traductores en el área de Tecnologías de la Lengua del País Vasco:

- Ixa Taldea, grupo de investigación de la UPV/EHU creado en 1988, trabaja en PLN aplicado a la revitalización y normalización del euskera y otras lenguas de bajos recursos. Ha desarrollado numerosos procesadores, recursos y aplicaciones (el corrector ortográfico Xuxen, el traductor automático Matxin, la red lexical Euskal WordNet, etc.)[6].
- Aholab, grupo de investigación de la UPV/EHU creado en 1995. Trabaja en procesamiento de habla (reconocimiento, conversión a texto, etc.)
- Hitz Zentroa, centro de investigación de la UPV/EHU, fundado en 2019 por Ixa Taldea y Aholab, referente europeo en investigación básica en PLN.
- Vicomtech es un Centro Tecnológico especializados en tecnologías digitales. Es el grupo que, además de numerosos planes y proyectos institucionales, ha desarrollado el traductor neuronal del Gobierno Vasco, Itzuli.
- Elhuyar es desde 2002 una Fundación dedicada fundamentalmente a tecnologías de la lengua, pero tiene sus raíces en el grupo Elhuyar creado en 1972 por alumnado voluntario de la Escuela de Ingeniería de la Universidad de Navarra, en San Sebastián, con el objetivo de desarrollar herramientas para el uso del euskera en ciencia y tecnología. Hoy en día, además del trabajo en ciencia y euskara, ofrece servicios para la aplicación del conocimiento avanzado. Elhuyar es famosa por su el diccionario Elhuyar de 1996 digitalizado en 1999. En tecnologías del habla y traducción ha desarrollado, entre otros proyectos, un sistema de reconocimiento de habla, Aditu, capaz de hacer transcripciones y subtítulos automáticamente, está en trabajando en un asistente inteligente (altavoz inteligente), Mycroft.eus, capaz de interactuar en euskera y el software libre o traductor neuronal Elia. En 2022, Elhuyar ha convertido la unidad de I+D que se encargaba de los servicios lingüísticos en Orai, centro de investigación, desarrollo e innovación especializado en PLN y dirigido a la industria.

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[4] Los proyectos analizados son Hizking 21, Anhitz, Berbatek, Be2Tek, ElkarOla, BerbaOla, Modela, Quales, Módena, Tando, DLNP4 DeepText, que se han desarrollado en colaboración con y con la colaboración con Vicomtech y Tecnalia, los grupos de investigación Ixa y Aholab de la Universidad del País Vasco (UPV/EHU) y la Fundación Elhuyar.

[5] Recientemente, en julio de 2021, se ha constituido el Centro Vasco de Inteligencia Artificial, BAIC (Basque Artificial Intelligence Center) fundamentalmente un clúster de empresas para la promoción de la investigación aplicada en IA, https://www.baic.eus/. Y en abril de 2022 el Gobierno Vasco ha aprobado el Plan de Acción de las Tecnologías de la Lengua 2021-2024, Gaitu, compuesto de proyectos concretos de la Administración.

[6] Se puede consultar la producción del grupo en https://www.ixa.eus/produktuak?language=eu

5. Los traductores neuronales en euskera

El desarrollo de la traducción neuronal en euskera se inició en 2015 con un proyecto denominado TAdeep del grupo Ixa Taldea. Anteriormente Ixa Taldea y Elhuyar habían creado Matxin un traductor automático entre euskera y castellano, con las tecnologías disponibles en la época. En 2017, se puso en marcha el proyecto MODELA en el que participaban varios agentes (Ixa Taldea, Elhuyar, Vicomtech, Ametzagaña e Isea Coop. de la Corporación Mondragon) con el fin de aplicar el aprendizaje profundo en un traductor de euskera. En un año, en 2018, se presentó el traductor MODELA, basado en deep learning, que fue el primer servicio de traducción neuronal en euskera abierto al público general (Cortés, 2017; Cortés & Jauregi, 2019). Desde entonces se han puesto a disposición del público cuatro traductores neuronales desarrollados en el País Vasco, con algunas diferencias técnicas, y basados en distintos corpus lingüísticos: Itzuli, Batua y Elia.

- Batua, desarrollado por Vicomtech, 2019, traduce entre cuatro idiomas (euskara, castellano, inglés, francés), basado en tecnologías deep learning y transformer.
- Itzuli, traductor del Gobierno Vasco, también de Vicomtech. Se ha usado como base el corpus digitalizado de la administración vasca. Como el anterior traduce entre los cuatro idiomas mencionados y está basado en mejoras del sistema MODELA.
- Elia, traductor automático multilingüe de Elhuyar, 2019. Trabaja en cinco idiomas (euskera, castellano, francés, inglés y catalán).

En cuanto a los datos de uso, y a modo de ejemplo, en el año 2021 el traductor ELIA tuvo 588.983 usuarios, 2.022.069 visitas, se instaló la aplicación en 18.809 dispositivos móviles, se hicieron 15.188.937 solicitudes de traducción y fueron más de 387 millones las palabras traducidas: un 51,3% de castellano a euskera, un 19,4% de euskera a castellano y un 29,3% entre otras combinaciones (el traductor ofrece traducciones en cuatro idiomas: euskera, castellano, francés e inglés).

Pero además de los traductores desarrollados en el País Vasco, las grandes empresas tecnológicas como Google o Microsoft han ido incluyendo en sus traductores al euskera. Ello ha sido posible gracias a traducciones cruzadas, con otro idioma como mediador, y ha hecho posible extender los traductores tanto en las redes, en Internet, como en aplicaciones y dispositivos que traducen directamente conversaciones y textos.

Como hemos dicho, en los últimos años a medida que los traductores se han ido popularizando han provocado tensiones en muchos sectores. El "don de lenguas" que ofrecen rompe o distorsiona las normas, objetivos, rutinas y estructuras de actividades configuradas para la revitalización de la lengua vasca, actividades y espacios concebidos para vivir en euskera o para su difusión. Durante el último año hemos recogido informaciones y opiniones sobre dichas tensiones en varios sectores de actividad[7]: medios sociales de comunicación en euskera, educación y universidad, traducción profesional o servicios de salud[8]. Exponemos brevemente la información más relevante por sectores.

- Durante las últimas décadas han surgido numerosos medios sociales de comunicación en euskera, con el fin de dotar a la comunidad de hablantes de medios locales, cercanos y en euskera. Muchos de estos medios se encuentran con que sus páginas web o sus redes sociales son traducidas por los usuarios o llegan a los usuarios traducidas, no siempre con la calidad deseable. No es una opción que hayan hecho los propios medios, escapa a su control ya que los traductores están disponibles en aplicaciones e integrados en muchas páginas web o redes sociales (el ejemplo de Twitter es bien conocido), de modo

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[7] En entrevistas con informantes directos, en coloquios y mesas redondas sobre el tema donde hemos participado como ponentes u oyentes, en artículos de prensa, en conversaciones informales, etc.

[8] Hay otros ámbitos en los que hay un compromiso efectivo o meramente normativo con la revitalización del euskera y en los que se está introduciendo la mediación de la traducción automática: la enseñanza para adultos del euskera, administración de empresas, planes de normalización en el mundo laboral, relaciones con la administración, servicios públicos, etc.

que podemos acceder a páginas que se traducen según las consultamos a la lengua que hayamos elegido o en la que tengamos configurado el dispositivo. Dado que el objetivo fundacional de esos medios era la normalización de la comunicación social en euskera, ¿qué deben hacer? ¿Pone la traducción automática en cuestión, el carácter y objetivos de estos medios? ¿Deben reinventarse para mantener su objetivo?[9] Josu Aztiria (2022) propone varias hipótesis de trabajo que pueden darnos una idea de las alternativas y de las decisiones que tendrán que ir tomando los medios. Pueden optar por ofrecer todo el contenido del medio en varios idiomas mediante la traducción automática, pueden ofrecer traducciones de contenido de forma asimétrica, puede ofertar productos diferenciados y adaptados en otros idiomas, o pueden incluir subescritura y doblaje masivo de los contenidos audiovisuales en euskera. También pueden optar por generar proyectos comunicativos conjuntos con redes internacionales en la que cada medio comunicaría en su idioma. En definitiva, se trataría de impulsar medios que trabajan originalmente en euskera promoviendo la comunicación en euskera dentro de la comunidad de lengua, pero aprovechando la traducción automática para ampliar su público, sin perder el control sobre el estilo o la calidad de los contenidos traducidos[10].

- En el ámbito educativo, el profesorado de educación media y universitario se ha percatado que es cada vez más habitual que el alumnado redacte los trabajos en castellano y use los traductores automáticos para entregar los trabajos en euskera. Esta tendencia hace temer que pronto, estos trabajos no sólo se traducirán, sino que también podrán ser "confeccionados" en procesadores de texto capaces de generar artículos, informes, etc. El problema es doble. Por una parte, una de las grandes apuestas para la normalización del euskera ha sido su integración en todo el sistema escolar mediante la inmersión lingüística, de modo que la actividad docente también tiene como objetivo la capacitación del alumnado en el uso competente de la lengua. ¿Se deben aceptar o dar por buenos trabajos traducidos automáticamente? ¿En qué casos? ¿Es posible integrar en la formación o en el currículo escolar los traductores y las demás aplicaciones de la IA? Ya que la prohibición de su uso no parece una opción viable, ¿cómo superar la tensión actual entre objetivos y medios? Por otra parte, vista la tendencia al uso de traductores en todos los ámbitos de la vida no parece exagerado afirmar que todos seremos "traductores" o usuarios de dispositivos que realizarán las traducciones directamente. En esos casos, ¿qué sucede con los sesgos ideológicos, o de género que estos traductores introducen? Tanto en un caso como en el otro, el conocimiento crítico de la IA y sus aplicaciones tendrá que ser incluido en el currículo educativo como competencias y habilidades socio-cognitivas y relacionales con las que trabajar (Moorkens, 2018; Sandoval, 2018).

- La traducción automática puede ayudar a mejorar la comunicación entre pacientes y servicios de salud, así como a implantar un servicio que pueda funcionar en varias lenguas independientemente de las competencias lingüísticas de los trabajadores o usuarios del servicio. No hace falta incidir en la importancia de una comunicación clara, sensible o empática en el ámbito de la salud. Los traductores automáticos parecen prometer una solución económica y directa en un mundo en el que cada vez son más las interacciones entre multilingües. Aun así, lo que parece una mediación menos intrusiva

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[9] Son algunas de las cuestiones y opiniones que se platearon en un coloquio organizado por Hekimen, asociación de medios sociales en euskera, sobre los riesgos y oportunidad de la traducción automática, "Itzulpen Automatikoa: aukerak eta arriskuak" (Andoain, 24 de febrero de 2022). Participaron en el coloquio unos veinte medios (Hekimen lo forman 50 medios de comunicación).

[10] Por ejemplo, el contenido, originalmente en euskera, de las páginas web de las revistas de Elhuyar zientzia.eus y aldizkaria.elhuyar.eus se puede leer en seis idiomas (euskera, castellano, francés, inglés, catalán y gallego). El usuario puede pedir el texto en uno de esos idiomas y el traductor realiza la traducción en el momento. Véase en https://zientzia.eus/ y https://aldizkaria.elhuyar.eus/

–no mediada por una tercera persona— también puede producir un efecto de despersonalización y de estandarización, una comunicación "fría" y una delegación de competencia o una dependencia de la capacidad de la máquina. Actualmente el grupo Ixa Taldea está poniendo en marcha en el Servicio Vasco de Salud (Osakidetza, CAV) un modelo adaptado de traducción automática. Para ello han desarrollado la herramienta Itzulbide, que permite la traducción de texto libre de los informes e historias clínicas (Perez de Viñaspre, 2020). En teoría, con esa herramienta cualquier sanitario podrá escribir y leer los informes en el idioma que desee. El problema, una vez más, es la estandarización de los textos y la competencia real en los idiomas oficiales: el 50% de la plantilla de Osakidetza es bilingüe, pero de esta manera, indican las voces críticas, el peso de la normalización lingüística recae en las elecciones personales de los trabajadores y no se actúa sobre el sistema de relaciones ni se oferta claramente una atención en euskera.

- La traducción es, por supuesto, una de las actividades profesionales más afectadas por los traductores automáticos (Álvarez, 2018). Incluso hay quien considera que acabará con la traducción como actividad profesional. De momento, son quienes se dedican a la traducción quienes están adaptando su tarea a las nuevas herramientas: cursos, talleres y guías de post edición (Hu & Cadwell, 2016; Forcada, 2017; Sánchez & Ric, 2020; Iñaurrieta & Aranberri, 2021), estudios sobre las competencias necesarias para integrar la traducción automática en su labor (Mellinger, 2017; Pym & Torres, 2019), reflexión o investigación sobre el impacto de los traductores en ámbitos concretos como la administración (Arrrasate, 2021), Wikipedia (Alegría et al., 2013) o sanidad (Soto et al. 2019), o sobre las diferencias entre la post edición profesional y no profesional (Aranberri et al., 2014; Schumacher, 2020).

6. Orientando la investigación

Los comentarios anteriores están en buena parte realizados desde un marco teórico en construcción que consta de varias capas: primero, tiene en cuenta los modelos o sistemas socio-técnicos segundo, las tensiones entre las competencias y disposiciones de los sujetos, las normas del sistema de actividad y las capacidades de los dispositivos, de las máquinas. Como hemos dicho, se trata de estudiar las innovaciones en cualquier aspecto del sistema de actividad en conjunto o redes de interacciones que han sido explícitamente organizados con atención a unos fines, el aprendizaje o el uso del euskera, y unas normas que regulan los medios para eso fines.

La principal característica de la IA es posiblemente su capacidad de aprendizaje. Los sistemas o redes de IA mejoran su capacitación y, como en el caso de los traductores, se "entrenan" o son entrenados en habilidades concretas y específicas, es decir, para unas tareas y para unos objetivos que o bien han sido explicitados o bien han surgido en las interacciones con usuarios o/y entre máquinas. En este último caso, un modelo socio-técnico bien conocido como la Teoría del Actor-Red (ANT) de Bruno Latour podría guiar la investigación (Latour, 2005). En ese caso nos preguntaríamos por las redes y agenciamientos o ensamblajes de elementos heterogéneos, por las interacciones múltiples, por su capacidad de generar agencia, por los cambios y "traducciones" de y en la red, etc. Pero, como hemos indicado, nos encontramos más bien en el primero de los casos: los sistemas de actividad a los que nos referimos han sido organizados intencionalmente, con unos objetivos y reglas explícitos. Son producto de la intención, la decisión, la planificación y la disponibilidad de recursos.

Nos movemos, por tanto, en la estela de la Teoría de la Actividad de Vigostky y Leontiev, siguiendo de cerca a la Teoría de Sistemas de Actividad de Yjrö Engeström (Engeström, Miettinen & Punamäki, 1999; Engeström, 2005; Daniels et al., 2010; Sannino et al., 2009). Aunque, se hará un uso crítico del modelo desde las aportaciones de la ANT.

En los modelos iniciales de Vigostky y Leontiev la actividad se entendía como un sistema de sujeto, objeto y mediador, un conjunto de acciones interrelacionadas para conseguir un objetivo. El mediador era el instrumento o recurso (el artefacto). Engeström introdujo en el modelo otros

componentes y, principalmente, las interacciones y retro-acoplamientos entre elementos, pero manteniendo la importancia de los motivos y de la conciencia. Las personas no son reducidas a nodos o agentes determinados por las interrelaciones del sistema (Nardi, 1996). Las actuaciones de las máquinas y de las personas no son del mismo orden. Se trata de una cuestión que se distancia de la ontología plana de la ANT, pero no de la idea de que todos los componentes pueden producir efectos no-intencionales e imprevisibles.

Según el modelo de Engeström, el sistema de actividad estaría formado por seis elementos, sus relaciones y sus interacciones: un par sujeto-objeto mediado por el instrumento o artefacto y la comunidad, una serie de normas y una división del trabajo. La interacción entre los elementos produce el resultado intencional por el que se ha puesto en marcha la actividad. Cada uno de los elementos debe ser especificado: el objeto es el sentido y la intención, es decir, el objetivo; el instrumento es cualquier mediación (desde el lenguaje a las máquinas e incluso otros sistemas socio-técnicos); la comunidad es el contexto social con toda su complejidad; la división del trabajo o las normas se refieren a las formas de organización social del sistema de actividad. El sujeto se asimila al individuo, pero debe recordarse que tal como postulaba Vigostky, el individuo "psicosocial" es el resultado de la incorporación y subjetivación de lo social en un cuerpo con necesidades.

Todo eso nos da una foto fija del sistema, un modelo muerto. Son precisamente la orientación intencional y las interacciones las que dirigen la mirada a las dinámicas del sistema en términos de éxito o fracaso, de tensiones y de adaptaciones y mutua transformación de los elementos. En este sentido, del mismo modo que se puede producir un ensamblaje o una adaptación "armoniosa" entre los componentes del sistema, al introducir un nuevo componente o al transformar uno anterior también se pueden dar conflictos, tensiones, fracturas, disrupciones, resistencias y cambios reactivos que reformulen los objetivos, las normas, las competencias, etc. De ahí puede derivarse la reestructuración de todos los componentes y la reorganización de todo el sistema.

Las innovaciones y creaciones se derivan, por tanto, de las relaciones cambiantes internas y externas del sistema. Usando un vocabulario propio, podemos organizar dichas dinámicas en dos ejes: el eje de las disposiciones y el de los dispositivos. En el primer eje encontramos, las interacciones entre las normas-comunidad-división del trabajo, que son los elementos que en el modelo aparecen en la base (de un diagrama triangular) y el instrumento (en el vértice). Hay, por tanto, un sujeto, un elemento activo e intencional que es también un producto o resultado y mediación de la base y el vértice. Es decir, el sujeto es la incorporación de normas, habilidades, estatus, responsabilidades, etc., en una actividad con instrumentos. El segundo eje nos lleva al otro lado del diagrama: en este caso las interacciones entre la base (normas, comunidad, división del trabajo) y el vértice (el instrumento) se realizan en el "objetivo" y se objetivan en el resultado y/o en los dispositivos (que exteriorizan los conocimientos y normas sociales). De este modo, nos acercamos al sistema de actividad como praxis: al actuar intencionalmente, el sujeto no solo modifica un estado del mundo, se modifica a sí mismo y, a su vez, se modifica el sistema de actividad entero. El sujeto es subjetivación de competencias, habilidades y/o disposiciones, y el sistema entero es una objetivación en dispositivos, resultados o productos de relaciones y conocimientos sociales.

Esto nos permite investigar cómo en diferentes sistemas reglados los traductores producen transformaciones disfuncionales y no normativas, cómo se reaprende frente a ellas, y cómo se reorganizan los sistemas de forma proactiva y reactiva integrando el nuevo elemento y desarrollando nuevas competencias, normas u objetivos para trabajar con el elemento disruptivo.

¿Qué sucede cuando el "artefacto" es un traductor neuronal mediador de relaciones entre el sujeto (normativas-fines/comunidad) y el objeto (comunidad-división funcional de trabajo)? ¿Cambiarán las normas? ¿Los sujetos, es decir, las disposiciones subjetivas? ¿El objeto, los productos, los servicios? ¿La comunidad? ¿La organización?

Los dos ejes anteriores se corresponden con dos tipos de conflicto entrecruzados: el conflicto entre, por un lado, los nuevos hábitos (en principio nuevas acciones o usos lingüísticos, de escritura, etc.) y, por otro, las normas funcionales y los objetivos de los sistemas de actividad en cuestión; y el conflicto entre las competencias psicosociales (disposiciones) y los recursos técnicos y estructurales (dispositivos).

Ambos conflictos están interconectados, ensamblados. En nuestro caso, las competencias psicosociales entran en conflicto con los recursos técnicos (con el uso de los traductores) solo porque no se ajustan a las normas y objetivos de los sistemas de actividad que hemos mencionado. Los usuarios, están construyendo, nuevas capacidades socio-técnicas, sistemas socio-técnicos de actividades con nuevas capacidades (en la acepción de capability). Pero hay que tener en cuenta que en el caso de la IA "usuario" es tanto el sujeto como el instrumento: los traductores automáticos y los usuarios humanos se están entrenando mutuamente.

7. Conclusión

Los sistemas de actividad en los que pone su atención esta investigación son un terreno cambiante y fluctuante en el que podemos aventurar que se redefinirán objetivos y normas por la irrupción de un instrumento que demanda nuevas habilidades y nuevas competencias. Ello dará lugar a nuevas capacidades (en este caso, lingüísticas) que afectarán a la vida social de las lenguas, a las relaciones entre ellas, o a la revitalización de lenguas minoritarias. Es de prever que esos cambios serán fruto de conflictos cognitivos, normativos, sociales, etc. Estos conflictos son en sí procesos de transformación, pero no procesos lineales de desarrollo u optimización de los sistemas. La entrada de un nuevo recurso como el traductor neuronal podría producir tres escenarios. En un primer escenario, al entrar en un sistema de actividad previamente organizado y regulado, es de prever que distorsionará el propio sistema y lo transformará hasta reorganizarse un nuevo "conjunto socio-técnico" dotado de nuevas capacidades. La investigación futura tendrá que aclarar cómo se produce esa reorganización. En segundo lugar, se encontrarán resistencias e intentos de hacer perdurar el sistema tal como estaba instituido. Dado que las resistencias no son también nichos de actividad innovadora, la investigación deberá observar qué aportan esas resistencias al desarrollo de los traductores y a la innovación en el uso de lengua. Por último, surgirán propuestas claramente intencionales e innovadoras tendentes a generar nuevas competencias y nuevas capacidades. Al igual que en los anteriores, en este tercer se abrirá una línea de investigación sobre el valor ambivalente de las reacciones ante los traductores y de los cambios multidimensionales que producirán.

Los tres escenarios mencionados dan prioridad a un tipo de desarrollo y reacción y a las consiguientes líneas de investigación. En el primer caso, priman los dispositivos (la IA y los traductores) y su deriva más sistémica, en el segundo, la resistencia reactiva de la institución, de sus normas y discursos; en el tercero, la innovación reflexiva desde el sentido de la actividad: la revitalización del euskera, que hasta ahora pasaba por las disposiciones y competencia lingüística de las personas y de las capacidades de los conjuntos sociales o técnicos.

La investigación pretende, por medio de la experimentación, la especulación y la imaginación, colaborar en el último escenario. Pero es previsible que en la mayoría de los casos se muevan conflictivamente entre los diferentes escenarios. De esta manera, tratará de investigar cómo son y serán los nuevos ensamblajes o agenciamientos técnico-lingüísticos. ¿Qué capacidades socio-técnicas, qué ensamblajes disposición-dispositivo, surgirán en y para la revitalización social/la vida social del euskera y de las lenguas con las que vivirá?

Referencias

Alegria, I., Cabezón, U., Fernández de Betoño, U., Labaka, G., Mayor, A., Sarasola, K., & Zubiaga (2013). Reciprocal Enrichment between Basque Wikipedia and Machine Translation. En I. Gurevych & J. Kim. (Eds), *The People's Web Meets NLP. Theory and Applications of Natural Language Processing* (pp. 101-118). Springer. https://doi.org/10.1007/978-3-642-35085-6_4

Álvarez, M. (2018). Los desafíos digitales en el mercado de la traducción. *Caracteres. Estudios culturales y críticos de la esfera digital, 7*(2), 193-215.

Aranberri, N., Labaka, G., Diaz de Ilarraza, A., & Sarasola, K. (2014). Comparison of post-editing productivity between professional translators and lay users. En S. O'Brien, M. Simard & L. Specia (Eds.), *Proceedings of the Third Workshop on Post-Editing Technology and Practice (WPTP - 3)* (pp. 20–33). Association for Machine Translation in the Americas. https://aclanthology.org/2014.amta-wptp.2

Arrasate, M. (2021). Itzultzaile automatiko neuronala EAEko Administrazioan, *Senez, 52*, 189-212.

Aztiria, J. (2022). Itzulpen automatikoa: euskara hutsezko hedabideetatik euskara ardatz duten proiektu komunikatibo eleaniztunetara. *Euskal Hedabideen Urtekaria 2021*, *Behategia*, 114-132.

Bahdanau, D., Cho, K., & Bengio, Y. (2014). Neural Machine Translation by Jointly Learning to Align and Translate (v1). *arXiv,* 1409.0473. https://doi.org/10.48550/arXiv.1409.0473

Barcelona Supercomputing Center. (2021). *El primer sistema masivo de Inteligencia Artificial de la lengua española, MarIA, empieza a resumir y generar textos*. https://www.bsc.es/es/noticias/noticias-del-bsc/el-primer-sistema-masivo-de-inteligencia-artificial-de-la-lengua-espa%C3%B1ola-maria-empieza-resumir-y

Bridle, J. (2020). *La nueva edad oscura*. Debate.

Bromham, L., Dinnage, R., Skirgård, H., Ritchie, A., Cardillo, M., Meakins, F., Greenhill, S., & Hua, X. (2022). Global predictors of language endangerment and the future of linguistic diversity. *Nature Ecology & Evolution, 6*, 163-173. https://doi.org/10.1038/s41559-021-01604-y

Cardon, D. (2018). *Con qué sueñan los algoritmos*. Dado.

Carr, N. (2011). *¿Qué está haciendo Internet con nuestras mentes?* Taurus.

Carr, N. (2014*). Atrapados. Cómo las máquinas se apoderan de nuestras vidas*. Taurus.

Carr, N. (2019). *La pesadilla tecnológica*. El Salmón.

Christensen Clayton, M. (1997). *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Harvard Business Review Press.

Cortés, I. (2017). Begirada bat itzulpen automatikoko sistemen bilakaerari. *Elhuyar: zientzia eta teknika, 327*, 40-41.

Cortés, I., & Jauregi, S. (2019). Itzultzaile automatikoa: mehatxua ala aukera? *Senez, 50*, 225-230.

Crawford, M. (2015). *The World beyond Your Head: On Becoming an Individual in an Age of Distraction*. Farrar, Straus and Giroux.

Daniels, H., Edwards, A., Engeström, Y., Gallagher, T., & Ludvigsen, S. (2010). *Activity Theory in Practice. Promoting learning across boundaries and agencies*. Routledge.

Engeström, Y. (2005). *Developmental Work Research: Expanding Activity Theory in Practice*. Lehmanns Media.

Engeström, Y., Miettinen, R., & Punamäki, R.-L. (1999). *Perspectives on Activity Theory*. Cambridge University Press. https://doi.org/10.1017/CBO9780511812774

Forcada, M. L. (2017). Making sense of neural machine translation. *Translation spaces*, *6*(2), 291-309. https://doi.org/10.1075/ts.6.2.06for

Gerken, M. (2020). *Facilitating the implementation of the European Charter for Regional or Minority Languages through artificial intelligence.* Secretariat of the European Charter for Regional or Minority Languages-Council of Europe. https://rm.coe.int/min-lang-2022-4-ai-and-ecrml-en/1680a657c5

Gobierno de España. (2020). *PERTE Nueva economía de la lengua. Memoria ejecutiva.* https://planderecuperacion.gob.es/sites/default/files/2022-03/PERTE_Nueva_economia_de_la_lengua_memoria_16032022.pdf

Gobierno Vasco. (2016). Sistema de Indicadores del Euskera. Departamento de Cultura y Política Lingüística. https://www.euskadi.eus/web01-apeusadi/es/eusadierazle/listaV1.apl?idioma=c&tema=16

Gobierno Vasco. (2016). *VI Encuesta Sociolingüística.* Gobierno Vasco.

Hekimen, Asociación de Medios Sociales en Euskera. (2022). *Itzulpen Automatikoa: aukerka eta arriskuak* [Video]. https://hekimen.eus/2022/03/23/itzultzaile-automatikoari-buruzko-hausnarketa-saioaren-laburpena/

Hu, K., & Cadwell, P. (2016). A Comparative Study of Post-editing Guidelines. *Proceedings of the 19th Annual Conference of the European Association for Machine Translation*, 346–353. https://aclanthology.org/W16-3420

Hui, Y. (2020). *Fragmentar el Futuro. Ensayos sobre Tecnodiversidad*. Caja Negra.

Iñaurrieta, U., & Aranberri, N. (2021). Postedizio Lantegia: ikastaroaren gakoak, *Senez*, *52*, 165-187.

Kornai, A. (2013). Digital Language Death. *PLoS ONE, 8*(10): e77056. https://doi.org/10.1371/journal.pone.0077056

Lash, S. (2005). *Crítica de la información*. Amorrortu.

Latour, B. (2005). *Reassembling the Social. An Introduction to Actor-Network-Theory reassembling the social oxford*. Oxford University Press.

Leturia, I., & Aztiria, J. (2021). Adimen artifiziala eta euskararen erabilera: aukerak eta eragin-eremu berriak. *Hermes*, 69, 84-88.

Lewis, H., & McLeod, W. (2021). Governance, Policy-Making and Language Revitalisation. En H. Lewis & W. McLeod (Eds.), *Language Revitalisation and Social Transformation* (pp. 343-362). Palgrave Macmillan.

Lewis, H., & Royles, E. (2018). Language revitalisation and social transformation: Evaluating the language policy frameworks of sub-state governments in Wales and Scotland. *Policy & Politics 46*(3), 503-529. https://doi.org/10.1332/030557317X14938075758958

Lovink, G. (2019). *Tristes por diseño: las redes sociales como ideología*. Consonni.

Mellinger, C. D. (2017). Translator and Machine Translation: Knowledge and Skills Gaps in Translator Pedagogy. *The Interpreter and Translator Trainer, 11*(4), 280-293. https://doi.org/10.1080/1750399X.2017.1359760

Moorkens, J. (2018). What to Expect from Neural Machine Translation: A Practical In-class Translation Evaluation Exercise. *The Interpreter and Translator Trainer, 12*(4), 375-387. https://doi.org/10.1080/1750399X.2018.1501639

Moseley, Ch., & Alexandre, N. (2010). *The UNESCO Interactive Atlas of the World's Languages in Dange*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000189453

Nardi, B. A. (1996). Activity theory and human computer interaction. En B. A. Nardi (Ed.), *Context and Consciousness: Activity Theory and Human-Computer Interaction* (pp. 1-8). MIT Press.

OECD. (2021). *AI and the Future of Skills, Volume 1: Capabilities and Assessments*. OECD Publishing. https://doi.org/10.1787/5ee71f34-en

Ong, W. J. (2002). *Orality and Literacy: The Technologizing of the Word*. Routledge.

Perez de Viñaspre, O. (2020). Itzulbide: osasun-txostenen itzulpen automatiko neuronala, *Osagaiz*, *4*(1), 33-38.

Pimienta, D. (2021). *Versión nueva y mejorada de un enfoque alternativo para la producción de indicadores lingüísticos en la Internet.* Observatorio de la diversidad lingüística y cultural en la *Internet.* http://funredes.org/lc2021/ALI%20V2-ES.pdf

Prys, D., Jones, D., Prys, G., Watkins, G., Cooper, S., Roberts, J. C., Butcher, P., Farhat, L., Teahan, W., & Prys, M. (2021). *Language and Technology in Wales: Volume I*. Prifysgol Bangor University.

Pym, A., & Torres, E. (2019) Efectos de la automatización en las competencias básicas del traductor: la traducción automática neuronal. En A. Vidal & A. Alarcón (Eds.), *Ocupaciones y lenguaje: Indicadores y análisis de competencias lingüísticas en el ámbito laboral* (pp. 475-506). Universitat Rovira i Virgili.

Real Academia de la Lengua. (2019). *La RAE presenta el proyecto Lengua Española e Inteligencia Artificial (LEIA) en el XVI Congreso de la ASALE*. https://www.rae.es/noticia/la-rae-presenta-el-proyecto-lengua-espanola-e-inteligencia-artificial-leia-en-el-xvi

Reed, S. K. (2020). *Cognitive Skills You Need for the 21st Century*. Oxford University Press. https://doi.org/10.1093/oso/9780197529003.001.0001

Rehm, G., & Uszkoreit, H. (Eds.). (2012). *The Basque Language in the Digital Age*. Springer. https://doi.org/10.1007/978-3-642-30796-6.

Russell, S., & Norvig, P. (2010). *Artificial Intelligence: A Modern Approach*. Prentice Hall-Pearson Education.

Sadin, E. (2017). *La humanidad aumentada. La administración digital del mundo*. Editorial Caja Negra.

Sadin, E. (2020). *La inteligencia artificial o el desafío del siglo. Anatomía de un antihumanismo radical*. Editorial Caja Negra.

Sandoval, E. (2018). Aprendizaje e inteligencia artificial en la era digital: implicancias socio-pedagógicas ¿reales o futuras? *Boletín Redipe*, *7*(11), 155-171

Sánchez, M. D. M., & Rico, C. (2020). *Traducción automática: conceptos clave, procesos de evaluación y técnicas de posedición*. Comares.

Sannino, A., Daniels, H., & Gutiérrez, K. D. (2009). *Learning and Expanding with Activity Theory*. Cambridge University Press.

Schumacher, P. (2020). Post-édition et traduction humaine en contexte académique: une étude empirique, *Transletters. International Journal of Translation and Interpreting*, *3*, 239-274.

Soto, X., Perez-de-Viñaspre, O., Labaka, G., & Oronoz, M. (2019). Neural machine translation of clinical texts between long distance languages. *Journal of the American Medical Informatics Association*, *26*(12), 1478-1487. https://doi.org/10.1093/jamia/ocz110

Srnicek, N. (2019). *Capitalismo de plataformas*. Caja Negra.

Srnicek, N., & Williams, A. (2017). *Inventar el Futuro. Poscapitalismo y un mundo sin trabajo.* Malpaso.

Steinhoff, J. (2019). *Automation and Autonomy. Labour, Capital and Machines in the Artificial Intelligence Industry*. Palgrave-Macmillan.

Stiegler, B (2001). *La Technique et le temps. Tome 3: Le temps du cinéma et la question du mal-être*. Galilèe.

Stiegler, B. (2015). *La société automatique*. *L'Avenir du travail*. Fayard.

Vaswani, A., Shazeer, N., Parmar, N., Uszkoreit, J., Jones, L., Gomez, A. N., Kaiser, Ł., & Polosukhin, I. (2017). Attention Is All You Need (v.1). *arXiv*, 1706.03762. https://doi.org/10.48550/arXiv.1706.03762

Wolf, M. (2008). *Proust and the Squid: The Story and Science of the Reading Brain*. Faber and Faber.

Wolf, M. (2018). *Reader, Come Home: The Reading Brain in a Digital World*. Harper Collins.

Research Article

Spirituality infrastructure: Notes for Analysing Arantzazu's Ecosystem

Infraestructura de la espiritualidad: Notas para analizar el ecosistema de Arantzazu

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Abstract: This article sets out to approach spirituality as cultural substratum in the enclave of the Arantzazu Sanctuary (Gipuzkoa, Basque Country) through the counterintuitive notion of infrastructure. Through four vastly different scenes, it aims to illustrate how Arantzazu, as an ecosystem, infrastructures spirituality, exploring this from a historical perspective, as well as looking to its social deployment. In the first scene, the apparition of the Virgin is the precipitating event that enrols an initial group of actors to her flanks. This inaugural event was followed by three others, in which spirituality was to be articulated in different but equally effective ways: the development, in the 1960s, of a laboratory for the production of language and community; the renovation of the basilica and the processes of emptying entailed in the realization of sculptor Jorge Oteiza's project; and finally, the international mountain marathon Aizkorri-Zegama that takes place in the vicinity of the sanctuary.

Keywords: sociology of culture; actor-network theory; religion; arts; architecture; landscape; sport.

Resumen: Este artículo pretende abordar la espiritualidad como sustrato cultural en el enclave del Santuario de Arantzazu (Gipuzkoa, País Vasco) a través de la noción contraintuitiva de infraestructura. Por medio de cuatro enfoques muy diferentes, se pretende ilustrar Arantzazu, como ecosistema e infraestructura de espiritualidad, explorando ésta desde una perspectiva histórica, así como atendiendo a su despliegue social. En el primer enfoque, la aparición de la Virgen es el acontecimiento precipitante que articula a un primer grupo de actores a sus flancos. A este acontecimiento inaugural le siguen otros tres, en los que la espiritualidad se articulará de formas diferentes, pero igualmente eficaces: el desarrollo, en los años sesenta, de un laboratorio de producción de lenguaje y comunidad; la renovación de la basílica y los procesos de vaciado que conlleva la realización del proyecto del escultor Jorge Oteiza; y, por último, la maratón internacional de montaña Aizkorri-Zegama que tiene lugar en las inmediaciones del santuario.

Palabras clave: sociología de la cultura; teoría del actor-red; religión; arte; arquitectura; paisaje; deporte.

1. Introduction

This article proposes using the concept of infrastructure to address the spiritual experiences commonly associated with a broad set of knowledges (religion, aesthetics, politics, culture, and sport). To do so, we trace the different dimensions of spirituality which - in keeping with this sprawl of knowledges - are plural, and which share the particularity of being experienced in relation to the specific characteristics of an ecosystem. To this end, the article focuses in on a place, the sanctuary of Arantzazu and its surroundings, and on the apparition, ascension and ecstasy plots that make up Arantzazu's spiritual chronotope. These three plots are communicating vessels with space-time configurations that point to a beyond experienced in the form of excess or transcendence. Yet, in the present article, our concern is with tracing the links to the way a heterogeneous network of actors infrastructure this phenomenon.

Of all the religious infrastructure in Durkheim's classical approach to magic, the totem aroused most interest. Like the totem, sets of religious/civil emblems such as flags, crucifixes or images of the Virgin are conferred power by the community, which the individual experiences as an excess that transcends them. This component, that exceeds the materiality of the object, is experienced as a spirit, as a component with a life of its own. It appears in the object but transcends the object. Thus, for the spirit to be invoked by an object, the object must first be (over)charged with this excess of energy. From this perspective, objects of worship and spiritual experience ultimately rely on the energy the community bestows through public rituals. The spirit is the experience of society as excess:

> "Thus placed at centre stage, it becomes representative. To that image the felt emotions attach themselves, for it is the only concrete object to which they can attach themselves. The image goes on calling forth and recalling those emotions even after the assembly is over. Engraved on the cult implements, on the sides of rocks, on shields, and so forth, it lives beyond the gathering. By means of it, the emotions felt are kept perpetually alive and fresh. It is as though the image provoked them directly. Imputing the emotions to the image is all the more natural because, being common to the group, they can only be related to a thing that is equally common to all. Only the totemic emblem meets this condition. By definition, it is common to all. During the ceremony, all eyes are upon it. Although the generations change, the image remains the same. It is the abiding element of social life. So the mysterious forces with which men feel in touch seem to emanate from it, and thus we understand how men were led to conceive them in the form of the animate or inanimate being that gives the clan its name" (Durkheim, 1995, p. 222).

We understand infrastructure as a form of social mediation operating like Durkheim's totem. In addition, it incorporates the technical-material dimension (often overlooked in sociological perspectives) which allows spirituality to be experienced in different ways, as well as on new grounds. If under a Durkheimian conceptualization it is the community that produces an excess that charges the object through rituals, in our approach it is the collective of (human and non-human) actors assembled through translations that form the network which produces the excess. The energies unleashed in these assemblies, which, as we shall see, are becoming more and more sophisticated, are neither created nor destroyed: they are transformed.

Table 1. Approaches to spirituality from the sociology of the social and the sociology of associations.

	Totem	Infrastructure
Origin	the community through rituals	the collective through translations
Depositary	object, emblem	network, experience
Type of Sociology	of the social	of associations

Source: Elaborated by the authors.

In this article we analyse the different forms apparitions of the spirit of Arantzazu take. If we were to adopt the sociology of the social that Durkheim proposes and inaugurates, our attention would be on the transmutation of the community into a body through ritual – either directly at the ceremony, or in a deferred way through the energies infused into the objects. However, we intend to approach it through the sociology of associations (Latour, 2005). This means that religious apparition can be understood as an assembly in which a collective of human and non-human actors infrastructures a set of religious experiences.

From the sociology of the social, the role of the Franciscan community in safeguarding the figure of the Virgin and vivifying her through liturgies is evident. Using this approach, the most manifest aspects of religiosity can be understood from different human communities, primarily the monks living in the monastery and the pilgrims. However, we believe that the mystique of place includes other infrastructural dimensions that go beyond community liturgies. The sociology of associations calls our attention to other actors. There is no doubt that the Franciscan community, which we could perhaps understand as a coarser network, with more intricate functions, roles, and relationships, forms an inertia (Becker, 1995). This inertia also operates in association with other non-human actors in a way that is in fact in line with Franciscan doctrine itself, which is prone to a sort of "symmetrical anthropology" (Latour, 1993) avant la lettre. This grants the status of siblings to non-humans, as can be seen in the references to sister moon, brother sun, brother wolf, and sister death, in the writings of St. Francis. Far from being limited to human spiritual experience, spirituality cannot be separated from the set of landscape and architectural elements surrounding it. From the sociology of associations, we trace the networks of actors that infrastructure the apparition, ascension and ecstasy that take place in Arantzazu through the analysis of four cases.

To transfer this infrastructural perspective to the spirit, we draw on Bakhtin's chronotope concept (Bakhtin, 1990). The chronotope is the way in which space and time are articulated in the novel; the chronotope is a kind of infrastructure with literary effects. Here it is the spiritual effects of forms of infrastructure that we are to analyse. Drawing on Bakhtin's chronotope appears doubly justified. Firstly, as Bakhtin himself points out, apparition in religion is a chronotope analogous to the encounter in the Greek novel he analyses. And secondly, because the chronotope allows us to consider the connection between the plot of a story and the infrastructure that configures it. Thus, it allows us to shift the plots to the infrastructure complex that produces the encounter or, in this case, the apparition. Infrastructure can thus be understood as closer to a verb than a noun: the apparition of the Virgin is infrastructured by the assembly of actors we analyse below.

This infrastructure plots ascents, including those of pilgrims. We are talking about a sanctuary located in Oñate, Gipuzkoa, 700m above sea level, perched on a precipice between the Aloña and Aizkorri massifs (Villasante, 1964, pp. 7-8). Its visiting pilgrims include churchgoers, there to attend Sunday mass or weddings: hikers preparing to climb Aizkorri, the highest peak in Gipuzkoa; ramblers, content to reach the Urbia fields; Zegama-Aizkorri mountain marathon spectators, making their way to the Sancti Spiritu climb; and the specialists and citizens attending meetings at the ArantzazuLab centre. In short, this infrastructure plots apparitions: those of the Virgin on the altarpiece or in the figures on sale in souvenir shops, of the first snowfalls, and of the apostles. This infrastructure plots the ecstasy of the runner, the traveller, the tourist, and the contemporary art enthusiast.

The present article aims to draw on all this infrastructure as articulated around the spirit of Arantzazu, without establishing religious transcendence as a condicio sine qua non; but rather, remaining open to socio-technical deployment, to the logistical prodigy of these "apparitions." To this end, four scenarios are analysed. In the first scenario, the Virgin can be seen like a totem that enrols a group of actors, including Franciscans and pilgrims, but also roads, footwear, and maps. In the second, Arantzazu is viewed as a laboratory of language production and design, and thus of community and identity. We turn to Oteiza's controversial apostles in the third, which

allows us to approach the paradoxical infrastructure of emptying. Lastly, we consider the Aizkorri-Zegama mountain marathon which passes close to the sanctuary and enables us to consider the role of footwear and the race profile in the ecstasy of the runners, among other things.

2. The spirit of the Virgin: an ever-widening network of actors

Although the spirit as a phenomenon is infrastructured by a heterogeneous network of actors, the distribution of protagonism is far from even in this narrative: some actors take on leading roles; others adopt secondary, yet necessary ones; while the actions of others remain invisible, or rather, hidden from view, stashed in black boxes no-one has bothered looking into. The Virgin of Arantzazu, incarnated through her figurine, is, undoubtedly, the first big actor we come across. This happens through different primary and secondary translation mechanisms that make the figurine the main agent within a wide network of actors (Callon, 1986). The primary mechanisms are those that pertain to the collective construction of the object, in which the intervention of different (human and non-human) actors mould the object, shape it, and link it to other places. The apparition of the Virgin as an event would thus pave the way for the construction, maintenance, and mobilisation of that object. The secondary mechanisms are the ones involved in the process of attributing a set of actions to the object, so that, although these actions are sustained by a more extensive network of actors, agency is fundamentally attributed to that specific actor-object. Miracles are a clear example of this attribution process whereby the agency attributed to the Virgin resolves the hiatus in a disconnected set of actions.

The collective construction of the object can be traced in the chronicles written by Esteban de Garibay in the 16th century. The Virgin is linked to the name Arantzazu because of how shocked the shepherd Rodrigo Baltzategi was by her appearance in 1469. Guided by the sound of bells, the shepherd found himself before the figurine of the Virgin in a hawthorn tree, "Arantzan zu?" [You in the hawthorn tree?] the shepherd asked, appearing more surprised by the place than by the apparition itself. The question about her location points precisely to the indexical character of the apparition: the apparition points to a place. Toponymy tells us otherwise, that it is in fact the characteristics of the place itself that give her the name, thus "Arantzazu" would refer to a place full of thorns (Villasante, 1964, pp. 21-24). Either because of toponymy or legend, the apparition of the Virgin has an indexical character: it points to a place, a steep place with a sheer drop over a precipice full of thorns. It is said that, as the Virgin had appeared in such an inhospitable place, an attempt was made to relocate the figurine to a more accessible one, but it disappeared from the new location only to reappear back in the original spot (Villasante, 1964, p. 21).

The testimony of the shepherd, the sound of bells, the hawthorn tree, the figurine, and the name are articulated and unified in the legend, the account of the apparition of the Virgin. And their actions extend beyond this, through the secondary mechanisms of attribution. The community of Franciscans, the different pilgrimages and the paths opened by them, and the hermitage built around them, are the channels used by these processes of attribution. The figurine of a Virgin barely 36cm tall, is gradually joined by an increasingly broad heterogeneous set of actors who enable the attribution of agency:

> "Inexplicably halted shipwrecks, furious storms suddenly tamed, corpses brought back to life, fires sparing select areas, crippled limb recoveries, swift reprieves from deadly diseases, terrifying diabolical possessions averted: a stupendous range of all the varied prodigies that enamel the most spectacular chapters in the history of Christian piety came together at Arantzazu to mark its relevance and the Virgin Mary's wish for a unique cult to take shape on this inaccessible mountain." (Anasagasti, 1975, p. 38).

The density of these networks could be called into question, or the degree to which they extend beyond the story or legend, but they always refer to one place, to one figure. In the following sections we turn to the inertias that make this apparition possible and pre-configure,

in turn, a chain of new appearances, which in this article come to constitute a concatenation of cultural innovations.

3. Production laboratories: encounters in the third space

Arantzazu's infrastructure played a decisive role in the deployment of Basque culture under Franco, especially in the development of standardised Basque (known as euskara batua) (Torrealdai & Murua, 2009; Zuazo, 2005). Arantzazu worked like a laboratory: testing and producing prototypes of the standard language. Like with Pasteur's laboratory, it took three moves for Arantzazu to be able to function as a lever and shift culture in a different direction (Latour, 1983). Arantzazu captured the interests of language and culture activists, writers, and linguists (1); it operated as a means of language growth and development (2); and it launched the standard language in a whole set of publications and educational programmes (3).

Firstly, Arantzazu captured the interests of language activists by becoming one of the main refuges from repression under Franco. Religious orders were among the few civic organisations that enjoyed any autonomy under National Catholicism. Moreover, in the case of the Franciscans of Arantzazu, as they were not associated with the losing side in the war - which some other Orders were – they had more room to manoeuvre (Itçaina, 2007). The fact that Basque was confined there allowed both the language, and the interest in it as a code for communication within that environment, to thrive. The enclave in which it was located and the way it recruited novices led to the establishment of a Basque-speaking community. It also boasted an archive and a library that stored, organised, and processed different speech acts. These were the centres of calculation (Latour & Hermant, 1999) with incessant inscription production, a necessary step on the way to a written language.

Secondly, a growth medium was formed there; it was a suitable breeding ground. Tellingly, the poetry collection dedicated to the Virgin of Arantzazu, Arantzazu, euskal sinesmenen poema (Mitxelena, 1949), which helped chart several of the episodes mentioned in this article, was, in fact, one of the first books published in Basque after the Civil War. The collection was written by the Franciscan monk Salbatore Mitxelena, illustrated by a monk who had also painted the stained-glass window of the basilica, Xabier Álvarez de Eulate, and published by the Order itself. Produced in the laboratory of Arantzazu, copies of the book spread and so did its semiotics, and it was soon interpreted as an allegory for Basque people and culture. In fact, Franco's censorship forbade the publication of the entire third part of the collection (Torrealdai, 2003). A few years later, when cultural activity in Basque was beginning to take off, the Bilbao poet, Gabriel Aresti, withdrew to Arantzazu for some days to write the poetry collection Maldan behera (Aresti, 1960), which is considered a pioneer work in standard Basque. In the collection he narrates the descent of a prophet into hell: if we are sticking to Latour's laboratory narrative, this could be understood as the displacement of the language from its environment of growth to the city.

The fact is that Arantzazu is, once again, the lever that enables transcendental cultural innovation. The innovation was transcendental, not in the religious sense of the term, but rather because it entailed the spread of a language, largely produced there, to the whole country. The Arantzazu's Franciscan publishing house was instrumental here: in addition to publishing Mitxelena's book, it was one of the main platforms that helped circumvent Franco's censorship. There the Franciscans founded Jakin, a journal published in Basque. Initially concerned with matters of theology and philosophy, the journal had to develop a suitable code to deal with these subjects, and consequently became one of the most productive avenues for the development of a scientific, learned register for the Basque language. But above all, Arantzazu is remembered for hosting the Congress of the Academy of the Basque Language in the year 1968 (a year that was iconic for culture and its innovations) when the foundations of the Basque language were laid down. At that Congress controversial decisions were made, which pitted two generations of writers and linguists against each other. The then president of the Academy opened it by praising the Virgin, citing her miracles that pacified the Oñaz and Gamboa bands centuries ago, and

praying that a beneficial agreement would emerge from that meeting (Manuel Lekuona in Euskaltzaindia, 1968, p. 141).

Ultimately, the Congress succeeded in promoting the unification of written Basque, but a strong controversy arose over the inclusion of the letter "H." The "H," a silent letter for most Basque users, but present in the Labourd literary tradition, which was to be recovered, drove a wedge between two generations of writers. The new generation of secular, progressive writers, who considered written language the most crucial factor for development, were up against the old, rather conservative, generation of religious writers and linguists who were devoted to the development of dialectal varieties and their use in oral communication (Amezaga, 2019). The Franciscans took the younger generation's side.

All this points to an infrastructure that could elevate language, understanding the elevation of language to involve enabling a wider range of users to participate in it. In this sense, Arantzazu provided the infrastructure for the "H," a mute signifier, to spread as if it were the spirit of the standardised language. It has also become a reminder of the sanctuary which is shaped like an "H." Jorge Oteiza, figurehead of the next cultural innovation which, in our story, was to infrastructure the spirit of Arantzazu, was among those not in favour of the unified language established at that Congress. Nevertheless, ironically, in his sketches of the apostles, the shape of an "H" can also be perceived (Badiola 2015, p. 2) in the basic infrastructure of his aesthetic proposal.

Figure 1. Picture of the current sanctuary's front view.

Source: Arantzazuko Santutegia (n.d.). Courtesy of Arantzazu Journal.

4. Stones and emptying

The 36cm figurine that appeared before the shepherd deployed an infrastructure that involved an ever wider and more heterogeneous group of actors, a network that amplified her gravitational force. This gravitational force, which resulted in an ever-growing community and ever-increasing pilgrimages, prompted the Order to launch a call for bids for an enlargement of the basilica. The sanctuary complex extension had to meet two conditions. Firstly, it had to facilitate road access to accommodate the growing number of pilgrims. Secondly, the figurine of the Virgin had to be set in the exact place she had appeared (she had told the shepherd that it was there and nowhere else that he should build the place of worship) which meant that the base had to be extended over the cliff so that the church would be at the same level as the convent. These functional criteria prevailed. It seems the panel was tipped in favour of Laorga and Sániz de Oiza's proposal because of the solutions they suggested. This was despite the fact that its modernist character, which the Franciscans liked, cannot have been to the taste of the architects who took part in the jury, who were more historicist in their orientation (Gonzalez de Durana, 2003, pp. 28-40).

The preliminary project presented by Laorga and Sáinz de Oiza was meant to blend into the landscape of Arantzazu, with the crags and ravines of the place, which is why they brought in a

hawthorn tree carved out of limestone as the most prominent element of the new construction (Sáinz de Oiza in Anasagasti, 1975, p. 93). Thus, the new basilica becomes a repetition of the apparition of the Virgin to the shepherd, the apparition made into architectural and sculptural infrastructure. To build on this, other artistic elements were brought in, including the altarpiece by Pascual de Lara; the stained-glass windows by the friar Xabier Eulate, who also illustrated Mitxelena's book; the doors by Eduardo Chillida; the crypt by Nestor Basterretxea; and the group of apostles by Jorge Oteiza (Anasagasti, 1975, p. 95). The latter's work sparked huge controversy. The ecclesiastical authorities ordered the works to be stopped, arguing that they lacked religiosity, an interpretation that seems to have been motivated by the fact that the proposal could hardly be considered to follow the conventions of "Spanish national art" (Ugarte, 1996, p. 141). Although work was finally resumed, Oteiza's apostles were left abandoned in a ditch at the side of the road (Olano, 1993, p. 42), until 1968, 14 years later, when the authorities changed their minds.

While the apostles were in that roadside ditch, Oteiza published the book Quousque tándem...! (Oteiza, 1963), which, as its subtitle indicates, is an essay on the interpretation of the Basque soul, linking the artistic avant-gardes with a reinterpretation of the Basque Neolithic past. Oteiza's negative aesthetics proposes emptying (aska) as the operation that produces states of grace in religion, freedom in politics, and beauty in aesthetics. Arantzazu artwork operates through emptying, both through its role as artistic infrastructure and through its spiritual effects. It works by emptying out marble to sculpt the body of the apostles and emptying the frieze between the apostles and the Pietà, while, at the same time, deploying spiritual emptying (Zulaika, 2003, pp. 29-33). The stones thus produce three forms of emptying that enlist a wider range of actors.

The emptying takes place within, the sculptures stir within the stone and the sculptor releases the apostles, first from the marble that imprisoned them, and then from the ditch where the authorities had abandoned them. The two acts of liberation must have been driven by the same impulse to empty, to deploy. In the lengthy polemic he engaged with in the press at the time, Oteiza confessed that he could not be sure that the stones had not moved within their stones and pointed out how the ironwork of the façade was left waiting for the apostles (Oteiza, 2007, p. 300). This form of emptying, this flight from the anthropomorphic figure, involved allowing the non-human actors and materiality itself to express itself. The sculptor - far from appearing as their spokesperson – seems to be a sort of facilitator of the public materiality that "appears" in Arantzazu, in the way Hannah Arendt described irruption into the public sphere as a kind of apparition (Tavani, 2013).

The emptying also takes place between. This is beautifully illustrated through the composition distributing the apostles and the Pietà, which was located in the upper part of the basilica's façade. While sketches in the initial phases of the project envisaged distinct types of depictions (Gonzalez de Durana, 2003, 34-43), in the end it was a plain concrete wall that separated the Pietà from the apostles. In the guided tours, visitors are told that when someone had asked Oteiza why he had left the wall without anything on it, he firmly replied, "I have not left the wall WITHOUT ANYTHING, I have left it WITH NOTHING."[1] The productive character of nothingness is anchored in Oteiza's negative aesthetics, for which he used the term "huts" because it means both pure and empty in Basque (Zulaika, 2003). Emptiness is that which enables the relationship between the elements. When defending the inclusion of the statues of the apostles to the Diocese, Oteiza referred to the organic relationship between architecture, sculpture, and landscape. The façade is not only between the apostles and the Pietà, but it also mediates with the surrounding landscape, which can express itself (only) WITH (the) NOTHING (López-Bahut, 2013).

Lastly, the emptying is produced out of the stones. The statuary challenges visitors to engage. The façade of the basilica, together with the landscape, is the part that attracts most

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[1] He also put this idea in writing on the conclusive stage of his work (Jorge Oteiza in Echeverria Plazaola, 2008, p. 269).

attention. The absorbed gaze of the shepherd on the apparition of the Virgin is transmuted into the equally absorbed gaze of the pilgrim in front of the nothingness that has appeared. The apostles are also joined by those observers who, usually in groups, act as spokespersons for them, and explain or speculate on why there are 14 not 12 of them, or on how they were abandoned in a ditch for 14 years. The statuary, eyes and mouths all wide open, open dialogues with the visitors. But it happens the other way around too: the statues also act as spokespersons for diverse groups. This is the case of the Pietà, whose image flooded the villages of the Basque Country to speak out against the death of a demonstrator at the hands of the police in 1976 (Goicoechea, 2018).

The hollows of the stones thus enable new interpretations, and the spirit itself dwells within them, open to reinterpretations which also constitute opportunities for re-apparition. The stones thus become infrastructure of the different spirits that animate them. The enlargement of the basilica was not just a matter of emptying space so that a greater number of pilgrims and churchgoers could visit. The text of the Franciscans' commission referred to a neutral infrastructure. However, Oteiza saw the spirit of the text to be a "great cultural elevator dreamed of by Father Lete [Provincial of the Franciscans] for our people, between earth and heaven" (Jorge Oteiza in Echeverria Plazaola, 2008, p. 128).

5. The Spirit of Zegama

Joseba Zulaika, in his ethnography on Basque violence, describes the pilgrimage of ascent from Oñati to Arantzazu as one of the key sites where religious devotion and political activism became intermingled. In fact, he points out how one of the (harshly repressed) propaganda actions carried out by ETA in 1968 – the very year the apostles left the ditch behind them to appear on the façade – allowed a transference of sacredness to take place: the simultaneous experience of political activism and religious devotion lived by the pilgrims on the ascent. In fact, this semiotic displacement allows Zulaika to explain the link between the religious ascent, the mountaineer and the ascensional slogan of Basque nationalism "Gora Euskadi Askatuta!" [Long live free Euskadi!] (Zulaika, 1988, pp. 254-259).

The ethnographic description of the processions of the Virgin in which religious fervour merged with political zeal allowed Joseba Zulaika to point to the transfer between the Marian religious beliefs of Arantzazu and the political beliefs of ETA. If, in this case, the same rite made it possible to establish a continuity in belief, and to shift from Marian to nationalist affect, the infrastructure that has been patching itself up since the apparition of the Virgin also enables other forms of spirituality and their corresponding transfers of sacredness.

Since 2002, Zegama, a village in Gipuzkoa with a population of just 1,500 inhabitants, has become the infrastructure for the emblematic Aizkorri-Zegama mountain marathon. The inhabitants, their roads, and even their homes become infrastructure to support the runners both logistically and emotionally (Rodríguez, 2022). "Zegama is Zegama" is the tautological phrase used by the famous mountain runner Killian Jornet (2019) to describe the experience of competing in this race: here again, the spirit is an indexical infrastructure, pointing to a place. Yet, conversely, calling the race the thing that put Zegama "on the map" is already clichéd.

The Sancti Spiritu ascent is one of the most emblematic parts of the race. Numerous videos capture this moment and the latest issue of Kiss the mountain the magazine opted to include several stills from that moment. Throughout the runners' hard climb, two attitudes, which are often alternated, can be discerned as they are deployed for the crowds thronging at the side-lines. The first is a serious attitude, the runner looks down at the ground, focusing on their feet to concentrate on the climb. In the second, the runner smiles and raises their eyes to the sky, often with their arms in the air, thus engaging the affect of the audience whose attention is focused on the apparition of the runner. Looking up at the volunteers who stand at the refreshment points, the infrastructure of the race, to receive a bottle of water or a wet sponge to refresh themselves, forms part of the first attitude. The second involves smiling at the volunteer and thanking them.

To cover both attitudes, Kiss the Mountain magazine chose "euphoria" as the headline for this issue dedicated to mountain running:

"The word euphoria, "εὐφορία," of Greek origin, means the strength to keep going, referring to the ability to bear suffering and adversity. Euphoria is also a feeling of well-being or joy that manifests itself to the outside world. These two seemingly quite distinct meanings bizarrely both manifest themselves in the ascent of Sancti Spiritu, in Zegama Aizkorri, the finish line we chose for the cover photograph of this issue." (Kiss the Mountain, 2022).

Figure 1. Photographs of the Sancti Spiritu ascent at the 2022 Aizkorri-Zegama marathon.

Source: Black Coffee Studio, 2022, pp. 20-21. Courtesy of @blackcoffee.studio and @kissthemountain.

Euphoria used to keep going on the ascent, euphoria to enjoy the ascent: the euphoria of the crowds and of the runners. Durkheim's sociology of religion would allow us to interpret this moment as a sort of somatization of the affect that is released in the collective of runners and spectators who co-participate in the climb. However, in line with the proposal outlined in this article, we maintain that the effervescence of the moment and the place is infrastructured by the race itself; that it also stems from the affect of other infrastructural components that take the runner to that point. While it is true that the crowds form an infrastructure, a "pasillo" [passageway] that carries the runner "en bolandas" [in the air] (Salomon Spain, 2019), it is also the shoes themselves and the mountain profile that allows the runner to get there. A form of techno-doping takes place in secular ascents. And it is this that makes their deployment possible and plausible. It took on other forms in the past, but they were not so apparent, or were not made so apparent.

If the race were to be identified with a totem, that totem would undoubtedly be the race profile, the image of which reappears non-stop throughout the races. This is because the profile is part of the race's central infrastructure, a reference point to economize on energy and affect. What is more, as it pays to go light and avoid the distraction of getting out maps, the company Calcasport offer runners easy-to-apply transfer tattoos of the race profiles. Runners can thus incarnate the map itself, as if it were a temporary, removable stigma. This is, yet again, an

infrastructure that points to another place, but in so doing it also gives directions on how to reach that place.

Infrastructure can also be used for business. In fact, the race is sponsored by Salomon, a running shoe and clothing brand, whose ZoomX Zegama model, in addition to taking the name of the mountain marathon town, includes the race profile on the side, as an unmistakable sign of affiliation to the totem.

The famous runner Killian Jornet has also designed his own running shoes for marathons. Months after winning the Zegama race, where he set a new record, he beat the legendary Ultra Trail du Montblanc mountain race record, breaking the 20-hour barrier for 171km with over 10,000m of elevation gain (Arribas, 2022). The records Jornet set were flabbergasting, earning him the nickname "The Extraterrestrial" from the French press. Equally surprising was the fact that it took him a single pair of trainers to run over 1,300km, with victories in the Zegama, Hardrock, Sierre-Zina, Geiranger and Mont Blanc mountain races, when runners usually wear out one or two pairs of shoes in each of these. These shoes were the second of the Kjerag prototypes manufactured by Camper and designed by Jornet himself. "Empty" pockets in the shoes fill with air when pressed against the ground, so they become lighter, increasing running performance; and the materials used for the sole and upper trainer are especially resistant to chafing and wear from contact with rocks. The trainers were specifically designed for Jornet's use and physiognomy (Scaliter, 2022). Kilian "The Extraterrestrial" Jornet lands every stride in every race in a custom-made vacuum spaceship.

6. Conclusions

In this article we tried to address the infrastructural dimension of the spiritual through the analysis of several cases associated with place. The findings presented here operate through accumulation, since the understanding of spirituality as linked to infrastructure proposed here is nothing if not cumulative: the infrastructure forms different layers that envelop the place. Spirituality can only be recognized from its effects, like in the image we present below, where place infrastructures different ascensional forms of ecstasy or calvary. The image of a Franciscan at the foot of a cross from the Arantzazu poetry collection, the Pietà from the façade of the new basilica, and an Aizkorri-Zegama runner on the Sancti Spiritu "passageway" are the effects of spirituality promoted by different infrastructural displays. It would be remiss to believe that some forms of spirituality do not require infrastructure, and that those that do, lack spirituality. As can be seen in the mobilization of the village of Zegama, which literally, due to its small size, becomes infrastructure mobilized entirely for a race, the logistical and the emotional go hand in hand. And perhaps this is the main cultural innovation.

Figure 3. The spiritual effects of infrastructure in three images.

Source: Ribera, 1644; Arantzazuko Santutegia, n.d.; Black Coffee Studio, 2022, pp. 20-21. Courtesy of Arantzazu Journal, @blackcoffee.studio, @kissthemountain.

The term ascension is loaded with polysemy in all the cases discussed, and yet it consistently refers to one component that is central to our analysis: the set of infrastructure that prescribe specific modes of ascent. Infrastructure becomes inseparable from the place to which it points – the Sancti Spiritu "passageway" for the runners, the roads, and the "elevator to heaven" or the basilica as a whole – and this enables the recurrence of a set of experiences that we can identify with the spirit of Arantzazu. In fact, as we pointed out earlier, "Franciscan spirituality" pays attention to the material. Not only that, Franciscanism conducts a sort of materialist inversion when, through attending to the "lesser," it establishes a relationship of equality between humans and non-humans. It could be said that, without intending to do so, it advocates for a symmetrical anthropology by granting all God's creatures the condition of "brothers and sisters." What is to stop us thinking that infrastructure could be that levelling notion that makes it possible to imagine diverse ways of articulating spirituality?

The notion of infrastructure is a membrane that has let us get in touch with a form of the beyond. A membrane that, due to its liminality, operates as a sort of threshold. In the wake of this first contact, we intend to dive deeper into the analysis of this concept, but to do so, we will have to build our own infrastructure. The radar, which another article in this issue invokes (Abad & González, 2022) also appears a fitting idea here in order to point to the type of sensitivity required for an investigation of these characteristics, since it is a matter of constructing research infrastructure – from field notes to images, interventions, and objects – that are assembled to allow themselves to be affected by place. An investigation perhaps closer to spiritualism – or even, dare we say it, spiritism — than to detached scientific observation.

Aknowledgement

References

Abad, B., & González, S. (2022). From compass to radar: an innovative methodological strategy for researching cultural innovation. *European Public and Social Innovation Review 7(2)*, 1-12.

Anasagasti, P. de. (1975). *Aránzazu: Paisaje, historia, tradición*. Arantzazu: Editorial Franciscana de Aránzazu.

Ansa Goicoechea, E. (2018). Txabi Etxebarrieta y la cultura política de la transición. *Erria*, 2, 84-93.

Aouita. (2022, August 22). NNormal Kjerag, las zapatillas de trail de Kilian Jornet y Camper. *Sport - La Bolsa del Corredor*. https://www.sport.es/labolsadelcorredor/nnormal-kjerang-las-zapatillas-de-trail-de-kilian-jornet-y-camper/

Arantzazu Aldizkaria. (n.d.). *Arantzazu Santutegia*. Arantzazu. Retrieved 14 June 2022, from http://www.arantzazu.org

Aresti, G. (1960). Maldan behera. *Euskera: Euskaltzaindiaren Lan Eta Agiriak, 5*, 189-234.

Arribas, C. (2022, August 27). *El 'extraterrestre' Kilian Jornet gana su cuarto Ultra Trail del Mont Blanc con el mejor tiempo de la historia*. El País. https://elpais.com/deportes/2022-08-27/el-extraterrestre-kilian-jornet-gana-su-cuarto-ultra-trail-del-mont-blanc-con-el-mejor-tiempo-de-la-historia.html

Badiola, Txomin. (2015). *Oteiza. Volumen I, Obra figurativa: Catálogo razonado de escultura*. Fundación Museo Jorge Oteiza,.

Bakhtin, M. (1990). Forms of time and of the chronotope in the novel. In M. Holquist (Ed.), *The dialogic imagination. Four Essays* (pp. 84-258). University of Texas.

Becker, H. S. (1995). The power of inertia. *Qualitative Sociology*, *18*(3), 301-309.

Black Coffee Studio. (2022). Zegama Aizkorri Maratoia 2022. 34 minutos para la eternidad. *Kiss The Mountain*, *67*, 14-32.

Callon, M. (1986). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St. Brieuc Bay. *Power, Action, and Belief: A New Sociology of Knowledge*, *32*, 196-223.

Durkheim, É. (1995). *Elementary Forms of Religious Life*. The Free Press.

Echeverria Plazaola, J. (2008). *La finalidad del arte. La obra y el pensamiento de Jorge Oteiza: Arte, estética y religión*. Pompeu Fabra University.

Euskaltzaindia. (1968). Arantzazu-ko Biltzarrak: 1968 urriaren 3, 4 eta 5-ean. *Euskera: Euskaltzaindiaren Lan Eta Agiriak*, *13*, 137-265.

Gonzalez de Durana, J. (2003). *Arquitectura y escultura en la Basilica de Aranzazu. Anteproyecto, proyecto y construccion (1950-55)*. Museo Artium.

Itçaina, X. (2007). *Les virtuoses de l'identité: Religion et politique en Pays Basque*. Presses Universitaires de Rennes.

Jornet Burgada, K. (2019, June 3). Zegama is Zegama. *Kilian Jornet Burgada*. https://www.kilianjornet.cat/es/blog/zegama-is-zegama

Kamalehe. (2011). Sanctuary of Arantzazu. *Wikipedia*. https://commons.wikimedia.org/wiki/File:Arantzazu-11_055.jpg

Kortadi Olano, E. (1993). *Arantzazu. Tradizioa eta abangoardia*. Gipuzkoa Foral Council.
Latour, B. (1983). Give me a laboratory and I will raise the world. *Science Observed: Perspectives on the Social Study of Science*, 141-170.
        — (1993). *We have never been modern*. Harvard University Press.
        — (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press.

Latour, B., & Hermant, E. (1999). Esas redes que la razón ignora: laboratorios, bibliotecas, colecciones. In F. J. García Selgas & J. B. Monleón. *Retos de la postmodernidad: ciencias sociales y humanas* (pp. 161-83). Trotta.

López-Bahut, E. (2013). Oteiza y la construcción del paisaje: Intervenciones desde la arquitectura en los años 50: Oteiza and the construction of the Landscape: interventions through architecture during the 50's. *ZARCH: Journal of interdisciplinary studies in Architecture and Urbanism*, *1*, 104-115.

Mitxelena, S. (1949). *Arantzazu: Euskal-sinismenaren poema*. Editorial Franciscana de Aránzazu. http://www.liburuklik.euskadi.net/handle/10771/10098

Oteiza, J. (1963). *Quousque tandem...! Ensayo de interpretación estética de alma vasca*. Auñamendi.

Ribera, José de. (1644). *San Francisco recibe los estigmas.* [Oil on canvas]. Museo Nacional del Prado. https://www.museodelprado.es/coleccion/obra-de-arte/san-francisco-recibe-los-estigmas/323d4aeb-9bc8-4281-b68d-e98768b34bdb

Rodríguez, N. (2022, May 24). *Una carrera que ha puesto a Zegama en el mapa*. Noticias de Gipuzkoa. https://www.noticiasdegipuzkoa.eus/gipuzkoa/2022/05/24/carrera-puesto-zegama-mapa-3589741.html

Scaliter, J. (2022, August 28). *Las zapatillas con las que ganó Kilian Jornet tenían 1000 km encima. Un experto nos explica la tecnología detrás de su calzado*. La Razón. https://www.larazon.es/tecnologia/20220828/b7bhs6e7hnf2tjdrf6oetpi7ku.html

Series, G. T. (n.d.). Zegama, 30,000 people in the mountains supporting the world's best trail runners. Retrieved 30 August 2022, from https://www.prnewswire.com/news-releases/zegama-30-000-people-in-the-mountains-supporting-the-worlds-best-trail-runners-301560652.html

Tavani, E. (2013). Hannah Arendt - Aesthetics and Politics of Appearence. *Proceedings of the European Society for Aesthetics*, *5*, 466-475.

Torrealdai, J. M. (2003). Fraide frantziskotarren euskarazko liburuak. In J. Intxausti (Ed.), *Arantzazu. Ikerlan eta saiakerak XX. mendeko historiaz* (pp. 593-606). Arantzazu Edizio Frantziskotarrak.

Torrealdai, J. M., & Murua, I. (2009). *Euskaltzaindia ekin eta jarrai*. Euskaltzaindia.

Ugarte, L. (1996). *La reconstrucción de la identidad cultural vasca: Oteiza, Chillida*. Siglo XXI.

Villasante, L. (O F. M.). (1964). *Santa María de Aránzazu. Patrona de la Provincia*. Enciclopedia Guipuzcoana.

Zuazo, K. (2005). *Euskara batua. Ezina ekinez egina.* Elkar.

Zulaika, J. (1988). *Basque Violence. Metaphor and Sacrament*. University of Nevada Press.
     — (2003). Introduction: Oteiza's Return from the Future. In J. Zulaika (Ed.), *Oteiza's selected writings* (pp. 9-81). Center for Basque Studies.

Research Article

The paradox of the basque farmhouse: The enfolding and unfolding of a cultural infrastructure

La paradoja del caserío vasco: El pliegue y despliegue de una infraestructura cultural

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Abstract: This article addresses some of the interpretations that have consolidated the cultural- symbolic-cultural imaginary of the Basque farmhouse, and then broadens the form of approaching the narrative of its identity. From the notion of prototype to that of infrastructure, from anthropological object to artistic object, the Basque farmhouse is conceived as a framework, with an axis open to unfoldings that go beyond the reproduction of its essential image. Concepts related to mediations, performativity and cartography make it possible to track the operativity of this framework, in a process that interweaves different fields of research and controversies that can lead into forms of transdisciplinary, post-qualitative study and cultural innovation.

Keywords: basque farmhouse; infrastructure; art, mediation; mapping.

Resumen: Este artículo aborda algunas de las interpretaciones que han afianzado el imaginario simbólico-cultural del caserío, para, posteriormente, ampliar la forma de acercarse a la narrativa de su identidad. Desde la noción de prototipo al de la infraestructura, del objeto antropológico al objeto artístico, el caserío se concibe como un entramado, como un eje abierto a despliegues que van más allá de la reproducción de su imagen esencial. Conceptos afines al medio, la performatividad y la cartografía proponen el rastreo de la operatividad de esta trama reticular, en un proceso que entrelaza diferentes campos de investigación y controversias que pueden desembocar en formas de estudio transdisciplinares, post- cualitativas y de innovación cultural.

Palabras clave: caserío; infraestructura; arte; medio; cartografía.

1. The basque farmhouse, a cultural infrastructure

We define the modern Basque farmhouse as a rural, agricultural and autochthonous exploitation that is situated in the north of the Iberian Peninsula, in the geographical area of Euskal Herria (the Basque Country). At first glance, the traditional entity resembles a typical large house or farm, a space that we could identify as an anthropological place (Augé, 1993); that is, as

a symbolically constructed space conceived as the modus vivendi of a rural setting, interwoven with its cultural heritage. Nonetheless, the phenomenon of the Basque farmhouse proves to be a particular institution, exceeding its anthropological conception towards a multiplicity of dimensions that we will explore in this article.

The first Basque farmhouses are contextualised at the end of the War of the Bands (late XIV century), linked to the Basque laws and the ideology of ancestry (Gorriaran, 1993). Consequently, the estate bore an identitarian seal that named the family inhabiting it. It emerged as the institution responsible for securing, protecting and transferring the traditional political and juridical values of Basque identity. Nobility, lineage, the surname and the indivisible transfer of the estate situated these buildings as infrastructures that underpinned a traditional ideology. Thus, the Basque farmhouse is capable of articulating in a characteristic form all the spaces needed for the survival of the family in one single building and setting, consecrating a "durable" productive, cultural and social system (Berriochoa, 2012). All of this sustains the significance of the social and collective dimension of the Basque farmhouse, serving as the infrastructure of a series of cosmovisions that constitute it into a distinctive emblem of a place and an age.

In keeping with the above, the studies of Basque cultural anthropology of the early XIX century played a primordial role in the characterisation of this narrative. These investigations focused on the origin of a people whose enigmatic language, Euskera, linked it to a primitive ethnic past, thus making anthropologists and ethnologists into the legitimate guardians of the discovery. In this sense, "messianic time" defined by Benjamin (2016) is separated from "historical time" as an interval that goes beyond concrete events and cases, that is, as the encounter of a utopia suspended in time. Basque culture and identity are discovered in this messianic time, in a primary and singular past that was supposedly on the point of disappearing. It is in the rural setting with its traditional substratum that the infrastructures, the assemblages between humans and nonhumans that connect up with a lost paradise, are identified. It can be observed that the millennialism attributed to the Basque people, according to Zulaika (2009), clutches onto prehistoric memory in order to revive the collective consciousness of its culture (Zulaika, 2009, p. 234). In the genesis of an essentialist and atemporal cosmovision, inherited land does not date, but instead consolidates, the rural setting as the axis of the Basque ethos.

The construction of Basque identity is inscribed in an "originary moment", which legitimates the Basque farmhouse as a pillar or archetype of an authentic identity (Gatti & Muriel, 2006, p. 28). The Vasquista Aesthetic of the late XIX century also based itself on these interpretations, and portrayed the ethno-typical features of identity. An enthusiasm that sublimated the rural world was sketched that continues to be referential in the imaginary of contemporary society, in spite of the fact that "the idyllic image of the Basque farmhouse (…) contrasts greatly with the enormous penury and material decadence from which many suffered in this period" (Gorriaran & Aguirre, 1995, p. 124). Art thus becomes a new infrastructure, a type of iron representative device of Basque idiosyncrasy, a model that deals with transcendental, optimistic or ideal images with all their connotations (Manterola, 2017).

In any event, in spite of the biased view of an anthropology that conserves an identity, and the sublimation of the Basque farmhouse as carried out by art, the complexity that characterises this infrastructure connects diverse fields of study and action, and it can adressed from multiple disciplinary fields. The traditional notion of the Basque farmhouse affects both its mixed production – agricultural and livestock – and the religious beliefs of the family that inhabits it, their organisation – jobs, tools, hierarchies, functions – and the configuration of the natural and cultural landscape with which it enters into contact. From a more general perspective, as we noted above, it is essential to conceive of it not as a mere object of representation, but as a type of association or assemblage that has been adapting itself with an extraordinary versatility to historical change, that is, to different social, cultural and productive models.

Figure 1. Matxienea farmhouse, Oiartzun, Gipuzkoa (2021).

Source: Produced by the authors.

Up to this point we have observed that the Basque farmhouse has acquired the role of an archetype, that is, a cornerstone that represents the most categorical characteristics of the Basque cosmovision from its remotest origins. However, it is worth underscoring that, considered as infrastructure, the Basque farmhouse can be displaced from its condition as an archetype to that of an open prototype. The idea of the Basque farmhouse as a prototype can be read in different ways. We have said that one of these was that of the archetype, a type of prototype as the first and unique example; the prototype of a lasting infrastructure, which serves as an identitarian device or unchanging symbolic model. Another very different reading is that of a prototype understood as an experimental exercise, as an element open to pro-vocations[1] through which it continues optimising, adapting and transforming itself into new infrastructures. Thus, as an "open" prototype, this icon can circumscribe a representative imaginary – a trap – or have the capacity to disseminate another type of social actions (Corsin, 2014; Gell, 2016, p. 58).

The crux of the matter lies in how we address the object's functioning, from the most ethnographic – and most agglutinative – modus vivendi to the most controversial – and changeable – modus vivendi. In this sense, it is worth stressing that by immersing ourselves in the Basque farmhouse we are seeking to hack the very notion of identity, to pursue the potential of its operativity (Etxebeste, 2022). To this we add the re-conceptualisation of a collective imaginary, which has enfolded and unfolded over time, and we enquire into the capacity for action of its (de)composition, of its possible new unfoldings[2].

2. The symbolic framework of the Basque house

The conception of the Basque farmhouse thus descends from an important framework of social discourses and practices. In this respect, the symbolic construction of Basque identity has been sustained by a strong sensation of loss (Gatti & Muriel, 2006, p. 28). This was combined with a context in which there was a clash between industrial and rural development, the Foral laws were abolished (1876) and the rise of Basque nationalism advocated an ideology based on racial, linguistic and cultural difference. From then on, the meaning of the Basque farmhouse was framed in a nostalgic vision, as preserving national values, the antithesis of external invasions and industrial progress. A dichotomy arose between the countryside and the city, the traditional

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[1] The sociologist of science Bruno Latour used to insist on the etymological meaning of the verb provoke: pro-vocare means to produce new voices, or, we would add, interpretations.
[2] Dominguez & Fogué (2017), expound the notion of unfolding as a process where design, instead of inscribing the political, strengthens its infrastructural capacity towards multiple fields and operativities.

and the modern, the vernacular and the external. The institution began to be discerned as a scenario that helped to integrate the discourse of the cultural and symbolic national essence.

This consciousness was rekindled following the Civil War (1936-1939) and the Francoist Dictatorship (1939-1975), a period during which the persecuted and castigated cultural and linguistic identity had survived in these mythical farmhouses. From the 1960s onwards, there was an important movement of cultural rebirth. Nonetheless, the Basque farmhouse continued to be a plausible element to which identity had retreated and from which it was now reflected. The popularity and the logic of survival of the late XX century were, of course, to be the basis of its system of representation. This system – understood as a complex framework of material relations and socio-cultural events – defined it as an infrastructure of cultural resistance (Gurrutxaga, 1990, p. 30-39). Montoya (2004, p. 47) observes that this is the "scenario of reproduction of a cultural logic", a framework of readings that correlate and reconstruct symbolic, political and collective visions of identity.

The development that accompanies and constitutes this subsystem provides us with models that also adapt to and update a social imaginary. In fact, starting from the 1960s, the pictorial and allegorical scenario noted above was to transcend into artistic conceptions[3] that resignified the role of the Basque farmhouse. We can see that the identitarian circumstance and the rural world have a strong power of attraction in art, given that, taking them as its basis, a thematic style is shaped that is suitable to the cultural parameters of the time. The power of art in the construction of the Basque imaginary becomes apparent since, beyond its patrimonialisation, it generates a corpus that makes visible certain social, intersubjective and relational processes that are found in the setting (Gell, 2016, pp. 206-170; Manterola, 2017).

Far from becoming devalued, this perception of the Basque farmhouse is also materialised in other fields. With respect to the patrimonial proposals, the tendency is to enclose the Basque farmhouse in a series of "static cultural models", as an element whose capacity of transformation is not open to consideration (Zulaika, 2000, p. 213). Concerning the codification of the original, what we could call devices of romanticisation maintain the Basque farmhouse in the reality that the ethnographers of the start of the century spoke about, that is, inscribed in an archetypical past. This imaginary, for example, is also reconstructed and stabilized in the sphere of television, as shown in the "Baserria" reality show, where pairs of kaletarras and baserritarras[4] compete in rural tasks (EITB, 2022)[5]. Against the backdrop of a logotype evoking the style of the painters of the last century and locked in the struggle to determine who will win and hence be able to sleep in the "father's house", we see which of the participants are the most capable of perpetuating this identitarian challenge.

The tourism tendencies in the Basque Country are based on the same taxonomy. Using the pretext of offering "100% Basque experiences", scenarios are recontextualised so that tourists can live the "Basque experience", with the aim of protecting its essentiality. In fact, adapting the contribution by Butler (2007), this series of events naturalises categorical fictions about the Basque farmhouse's identity, at the cost of maintaining its successful framework. It is sufficient to simply type the word "baserri" into any online search engine to see that the majority of results reproduce the same rhetoric.

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[3] Amongst other artistic expressions, Basque sculpture of that time drew inspiration from the rural and material tools of the setting. Jorge Oteiza published "Quosque Tandem…!" (1963) an interpretative essay on the aesthetic of the Basque soul, and the poet Gabriel Aresti (1964) connected the idea of "la casa del padre (the father's house)" – a simile of the Basque farmhouse – with defending the nation, thus collectivising its nature, which later would be condensed in the transmission – "mother" – of the cultural and linguistic essence – "fire/hearth" (Manterola, 2017; Amezaga, 2018, p. 52; Etxebeste, 2022).

[4] The names "baserritarra" [a person linked to the farmhouse] and "kaletarra" [a person linked to the street] refers to the differentiation – in a certain sense disparaging – made between the inhabitants of the rural setting and those who live on a street in a town or city, respectively.

[5] The idea of this program is to show a parallel image of Basque rural sports or "herri kirolak", and it is notable for drawing no distinction between work and sport; it is a good example of otium and negotium as characteristics of the traditional Basque cosmovision.

It is clear that the offers linked to the Basque farmhouse propose experiences that instrumentalise its image, whether this is translated into contemporary gastronomic entities, folkloric celebrations and herri kirolak, commercial settings or other cultural events. It could be defined as a pop distillation of the rural world, where the very notion of identity is instituted in a strategic way, as a "stylized repetition of acts" (Butler, 2007). These offers reconvert the Basque farmhouse, that productive and primordial identitarian entity for the family inhabiting it, into a souvenir or fetish that transcends the service sector. In all the examples presented there is a kind of immersive reality, an identitarian reconstruction that makes the infrastructure or framework that sustains the receiver's experience vanish from sight (Bolter & Grusin, 2011, p. 30). As a result, the "authenticity" of the Basque farmhouse brings out the cultural identity that it previously undervalued, and places it in the socio-technical machinery of the market, just as its role is optimised and reconstructed from more or less specialised fields of knowledge (Yudice, 2002).

Figures 2. & 3. Images from the second season of "Baserria" in EITB (2022).

Source: Compiled from the program's website. https://www.eitb.eus/

As we can see, there are multiple productions and interferences that adapt the Basque farmhouse to new fields and interpretations. For such purposes, the Basque farmhouse is a framework of identity, an organism that does not depend so much on the imaginaries that have constructed and unified its meaning, but instead, as an identitarian infrastructure it is also able to weave new projections. An infrastructure is what sustains a functioning system (Corsín, 2018). Adapted to the case of Basque identity, this would be the accumulation and function of narratives – discursive, symbolic, material, technical and imaginary – that sustain and make up this cultural identity. Following Sánchez Criado (2016, p. 88), the Basque farmhouse is a "conglomerate of entities" that "infra-structures" a form of being. Stated differently, the Basque farmhouse is the base or structure on which other objects operate, making a determinate identitarian system function (Larkin, 2013).

Let us for a moment imagine this subsystem, this infrastructure that sustains identity and the interrelations amongst different moments, spaces and actions. At this point we could evoke Bakhtin's notion of the "chronotope" (Bajtin, 1991), and understand this framework as a narrative interface of meanings and events that proceed from different spaces and times, but that find points in common and, insofar as they bind together as a network and expand as a rhizome, multiply and open up their meaning to new complexities. This is the projection that interests us, a projection that, as Corsin (2018) would say, "claims" the matrix of the Basque farmhouse from an infrastructural dimension in which, in spite of its quasi-rural and self-referential imaginary, we can appeal to its reflexivity and capacity for agency.

Now, the narratives in keeping with the construction of the symbolic Basque farmhouse directly affect the problematic of identity, and the fact is that the Basque farmhouse is an example of dogma, of interpretations and discourses subjected to an order. Nonetheless, according to Larkin (2013, p. 329), infrastructures are "conceptually unruly" as they also have the capacity to propose itineraries, to weave forms of participation and, in short, to make visible the potential of

the elements involved in the process of their construction. In this respect, uncertainty remains about the margin of error existing between the codification of the Basque farmhouse and the power of the political and material framework unfolded in this series of events.

3. Deploying the paradox

The projections related to the construction of the Basque farmhouse, as we see, are subordinated to diverse expectations and interests. Within this order of ideas, the mechanisms of production and reproduction of its imaginary convert it into an element that operates in a "sub-political idiom of mediation" (Merres & Lezaun, 2011). It is worth saying that this is equally applicable to the network of the Basque farmhouse and to any other cultural and symbolic object that might operate as a fetish-object.

With the idea of the fetish, we are referring to cultural elements that possess a great seductive power (Latour, 2001). In this sense, the Basque farmhouse represents an essential symbol, it conceals an identitarian formula, which is why we venerate it. Now, the reflection of this framework generates unease about whether, as a fetishized element, the Basque farmhouse might be a social fiction, a naïve projection of identity, or, as an active agent, it might be able to promote new forms of operating.

Perhaps, it is precisely this fetish nature that causes us to forget its infrastructural nature, that is, the network of technical, semiotic and material relations and interactions that shape and reshape its identity. Hence, we can consider it to be a black box of Basque social and cultural identities, a substantial emblem that hides the complexity that directly or indirectly constructs meaning (Etxebeste, 2022). We could say that this blackboxing conceals the way in which the infrastructure of the Basque farmhouse has been – and continues to be – woven in its process of "coming into being" (Martinez de Albeniz, 2017; Latour, 2001, 2008).

It is precisely for this reason that only the most superficial results are taken into consideration, for example, that of idealising it as a paradisiacal setting, forgetting the related realities of durability, inter-generational transmission, climatic impacts, distances, impressions, hearings, transformations, etc. To paraphrase Bruno Latour (1999) paradoxically, the more the prototypical, ideal, pre-modern images of the Basque farmhouse succeed, the more opaque and obscure they become. That is how its symbolic imaginary is perpetuated as a neo-aestheticization of quasi-religious approaches and effects.

The work *Paradox of praxis 1* by Francis Allÿs (1997) provides us with an example that illustrates this idea of the black box. In this performance the artist pushes a block of ice through the streets of Mexico City, an action during which the ice gradually melts, under the pretext that "sometimes making something leads to nothing". Amongst the numerous readings that can be made of this action, what interests us is the absurd act of moving this block of ice, given that the accompanying conditions – movement, strength, wear, temperature, energy, time, etc. – make the ice melt.

The simile between the block of ice and the black box helps to displace the Basque farmhouse from the notion of the "anthropological object" to that of an object that is also "artistic". In reality, the idea of the cultural fetish has points in common with the traditional and essential idea of art and aesthetic experience. The aura in which this object is shrouded is inherent to its religiosity, as Gell argues (2016, p. 138), and this idolatry recapitulates the form in which societies and cultures project their beliefs. The symbolic Basque farmhouse sustains a frame of reference, like a block of ice in which the essence of Basque identity is frozen.

Figure 4. "Paradox of praxis 1" by Francis Allÿs.
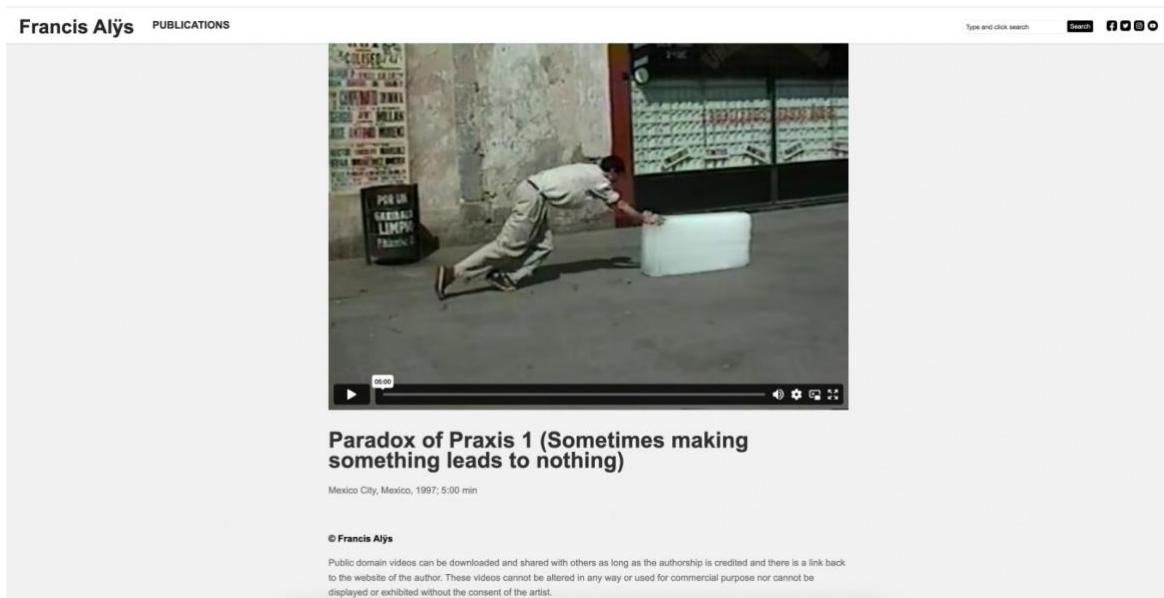
Source: Image obtained from the author's website and authorized for non-commercial use.
https://francisalys.com/sometimes-making-something-leads-to-nothing/

Returning to Allÿs's action, it is worth underscoring the iconoclastic gesture of allowing the object to melt, that is, of considering the work of art not as a physical and closed symbolic object, but instead as a happening open to different stimuli, whose trail indicates the course it has followed. The obsolescence of the block of ice is comparable to pushing the closed prototype of the Basque farmhouse, its archetype, an act that only leads to reproducing its essential image, an action that "leads to nothing" other than reinforcing outdated imaginaries. The de-materialisation that takes place in the performance, conversely, displaces the idea of the object, whatever this might be, to a space of social, performative and experimental power.

Supporting oneself in the artistic field to transcend the idea of the monument provides an opening through which the object of the Basque farmhouse and its identity are displaced towards a different public materiality. A relevant text in this sense is the sculpture in the expanded field by Rosalind Krauss (1979), a proposal that calls for the liberation of the sculpture, breaking with artistic perspectives that tie the work of art to the fetish-monument, that is, the bewitchment of the aesthetic experience and its internal logic. Krauss proposes to free sculpture from its pedestal, opening up a field where art transcends the object, making visible the different levels of agency in which the artistic action operates.

The Basque farmhouse understood as a monument, black box or identitarian fetish, as a non-expanded infrastructure, is reinforced by the concept of "institution". One of the competences of the institution lies in its dissimulating the agencies that it (re)presents; this unleashes the process of extolling the elements of its model, on one side, and that of delimiting its political capacities, on the other. However, we can observe here a movement where the black box of the Basque farmhouse exceeds the limits of its representation as an institution, and, as an "ex-titution", is unfolded towards innovative social, material and/or conceptual processes (Domenech & Tirado, 2001). The opening up of the box represents the unfolding of its infrastructure, producing a turn away from the discourse of the predetermined and generally patrimonialized cultural object.

Thus, between agencies and practices, the great paradox of the Basque farmhouse is that it is constructed in a double direction: as an auratic monument – institution, black box; and, conversely, as a translation – extitution, mediation. This idea questions the dichotomies that we have been managing up to now, resituating the construction and reconstruction of the fetish as

controversy. In the case of the monumentalisation of the Basque farmhouse, that is, in the categorical reproduction of its univocal narrative, we tend to reproduce a referential image, at the cost of forgetting another series of characterisations that also shape it. We belong to a society in which the most uncomfortable part of the totem, its character as infrastructure, is forcluded under the lens of the social ideal.

Each event linked to the Basque farmhouse is, however, susceptible to being opened up to new social transformations. Like the block of ice, each agency leaves a new trail, it takes us onto a terrain where the Basque farmhouse is assembled in multiple forms, as museum[6], app, statistic, logotype, heritage, hashtag or pizzeria. Returning to the "Baserria" reality show, apparently the strategy consists in extolling the essential Basque farmhouse, since the reward for the winners is being able to sleep in the farmhouse and to sit down at a table spread with typical delicacies, while the losers are relegated to sleeping in a shack (txabola). As an intermediate or liminal territory between these two exclusive infrastructures, the debate about what has happened over the course of the week takes place in a chill-out style greenhouse-set.

In any case, the unquestionable meaning of the prototype is expounded and changes to the extent that its interface does, in an interactive, dialectical exercise connected to its social reality. If we reformulate the reference of Latour's cited above (2001, p. 263), paradoxically, the prototypical images of the Basque farmhouse achieve success, not due to increasing opacity, but due to the greater number of tensions and reformulations they make evident.

4. Networks, mediations and cartographies

We will now proceed to employ methodological tools that are capable of intercepting how the interface of the Basque farmhouse moves in its most agential sense, to envisage how it depends on the mediations that enact it. To that end, the notion of prototype becomes a field sown with both mines and opportunities.

Indeed, considered from the sociology of associations or Actor-Network-Theory (ANT) (Latour, 2008), the Basque farmhouse is no longer seen as a closed object with a given meaning, but instead as a network of multiple actors that are interconnected and that participate in a process that is assembled in a circumstantial and always precarious form. According to this author, in order to be faithful to the social dimension, the object must be opened up to controversy, that is, to the uncertainty of mediations.

This posits a sociology of innovation that takes the characteristics of identity and culture as versatile, because it considers that any agency has a transformative effect. The contribution of ANT equips us with the theoretical resources needed for beginning to make the framework of this element visible, and for deducing its identity based on the notion of assemblage. For this reason, the heterogeneity of the Basque farmhouse is the primordial characteristic of its identity; it is not so much tied to a categorical order as based on the mediation in which deviations, disappointments and fleeting pacts emerge (Dewsbury, 2000, p. 477).

We take this series of concepts from the farmhouse's level of production, where climatology, biodiversity or ecology have an impact from dimensions considered up to now as null and void – flowering cycles, soil humidity, temperature, pollination, pesticide products, insects… All of these have a tangible effect on other areas – quality, quantity, intensity, networks, market, tools, fuel, rotation – and vice versa. It is the power of agency that is found amongst the multiple parts that, in a series of horizontal contacts, shapes the reality of the setting. Also, from the cultural and symbolic field, all the relations and reconstructions related to the imaginary of the Basque farmhouse are part of its open and changing configuration, in which, in fact, their participation

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[6] The reconstruction of the Igartubeiti farmhouse as a museum offers visitors an itinerary where they can enter a totem of the XVI century, thus providing a good example of how the identity of the farmhouse serves as an infrastructure for each experience, advertising and event related to the context. Name of website: https://www.igartubeitibaserria.eus/es

ranges from the patent on a seed to the transmission of a traditional recipe, from the industrial manufacture of a plastic souvenir to the photographs uploaded to social media, etc.

For his part, Michael (2012) observes that "what these objects are – what their ontology is – rests on the sorts of events of which they are a part" (p. 171). In the theatre play Tribiz. Baserri Galdue (Urresti, 2021) a conversation is held with certain objects linked to the Basque farmhouse. This is about an intermediate space and the aim is to detect how different gestures, words, tools, stones, public and actors can interact, collide and thus become the mediators of new meanings. The play itself questions whether "these actions will be our best patrimony". Nonetheless, the nostalgic meaning of the work also "domesticates" the Basque farmhouse, instead of allowing its symmetrical capacity to emerge as a political issue (Michael, 2012, p. 171). Essentially, taking one of the sides in the controversy would now be inconsistent. What we wish to make possible here is for "the actors to deploy the whole range of controversies in which they are immersed", where we no longer try to "discipline them or make them fit into our categories", but instead allow them to deploy their own worlds (Latour, 2008, p. 42).

Once the debate is opened, there is an urgent need for another exercise that involves thinking about the background of the Basque farmhouse as something predominantly political. In a certain sense, if we expand the infrastructure, if we dilate the interface, we are also awaking a "parliament of things" (Latour, 2007, pp. 207-211); a focus where the axis of the Basque farmhouse brings together a tense negotiation amongst agents, objects, techniques, materials, beliefs, ideals, archives, etc. To manage these new possible frames of meaning, the anthropological object must be opened up to a "cosmopolitan" dimension (Stengers, 2016), that is, to a debate that does not enfold or inscribe a given function – in its archetypical or categorical sense – but instead allows speculation about the form in which practices and elements operate and construct the world, in their most agential sense (Dominguez & Fogué, 2017; Martinez de Albeniz, 2020). Now, given the lens of the political framework that is being deployed, how is this operativity to be perceived? Or, stated differently, how is its complex process of transformation to be envisaged? Here we argue that this takes place through mdiations.

Deleuze and Guattari compare the mediation to a plateau, with raised and vibrant spaces that are connected via "subterranean stems in such a way as to form or extend a rhizome" (1987, p. 22). We would say that to mediate is, in part, to go through the stem existing between plateau and plateau, like a path that hybridises one and the other. The nature of mediations, without doubt, belongs to a performative movement, in which the Basque farmhouse, "enfolded" in interferences, would show its full potential. In this sense, following Dewsbury (2000, p. 475), what is performative is the opening, that is, the space that unfolds the following moment thus enabling change to occur. From each "plateau", from each prototype, reconstruction, event or image, the performative element suggests that we allow ourselves to be transported through the political articulation of its links.

Of course, the notion of the performative mediation requires creative resources for its analysis, that is, a series of tools for making it visible – which is perhaps one of the greatest challenges posed in this contribution – to both enter into the patternless network or concrete technique, and give credibility to a proposal that seeks to investigate it and contribute from an artistic, and therefore post-qualitative, practice[7]. Now, this perspective means that the infrastructure of the Basque farmhouse is seen as an experimental laboratory, as a flexible framework of disparate elements that form a single system (Larkin, 2013, p. 330) that we can affect and be affected by. Hence the trajectory of the Basque farmhouse cannot be defined a priori, since in each event new worlds will be constructed, produced and mediated[8]. This is a positioning that converts the cultural identity of the past and present into an indeterminate process, an interweaving of provisional forms waiting to be mapped.

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[7] We refer the reader to the article by Abad and González in this monograph.

[8] In the research that preceded this article (Etxebeste, 2022) some of the artistic works that are related to the farmhouse in an experimental way are presented.

5. Ethnographies of operativity

Considered from the perspective of Actor-Network-Theory, once the agencies are deployed and stabilised, the "assemblage" composes a new logic for conceiving the object of study (Latour, 2008). This exercise involves mapping, an interpretative description where the changes that take place can be narrated as they occur. In this respect, in the anthropological and social sciences the text has been predominant when it comes to solving the intangibility of certain processes. However, this practice runs the risk of remaining inherently limited, as it involves the difficulty of making the experimental itinerary visible, and that of a formalisation where the framework's operativity and other material expressions might be tangible.

In this respect, Larkin (2013) defines the "poetics of infrastructure" as a process of discovery that goes beyond the normative means of approaching alternative experiences and formats of assemblage, where, as Sánchez Criado (2016, p. 93) notes, "our narratives can also manage to in-form new infrastructures or new forms of thinking and narrating in infrastructural terms". Consequently, Dewsbury (2000) explains that a performative approach to the social dimension involves three perspectives: accepting the immanence of the event, having a practical view of the constant exchange with our setting, and the importance of creativity for experiencing these relations and changes (Dewsbury, 2000, pp. 492-494).

In this sense, the genealogy of contemporary art proposes a change of paradigm. Since the art of the 1960s and 1970s – Land Art, Minimal Art, Fluxus, Conceptual Art, Relational Art, amongst others – the capacities of the process, the objects and tools that mediate in the artistic process, establish culturally innovative forms of relating to the world, mobilising heterogeneous readings of the setting. The artists challenge the institutions of art, emphasising interdisciplinary proposals and radical resources of intervention, conceptualisation and registration.

For example, installation art (Bishop, 2008) is a clear expression of how contemporary art formalises a series of artefacts capable of expanding and making visible the agencies that we so much want to see. Just as the monument expands into the setting (Krauss, 1979), installation art ceases to be a representative and auratic art for contemplation, and begins to provide a field that the public can traverse, that is, a mediation with which to re-cognise and re-configure processes. The notion of installation art is comparable to understanding the prototype as a speculative element that, between identity and alterity, unleashes new imaginaries and acts of mediation.

Thus, our desire to understand the Basque farmhouse not so much as an anthropological object, but as a de facto artistic installation abandons the pretension to patrimonialise the fetish and treasure its symbolic framework, and opts instead for a format that activates the potential of the exchanges that it undergoes. This means that we move from a dishonest, representative device to another which has the potential to continue constituting itself. From the abovementioned black box that holds the identitarian framework of the Basque farmhouse – in terms of mediation – to a multiple dimension of hyper-mediation and remediation where, as in a rhizome, distributed perspectives and other points of expansion are activated (Bolter & Grusin, 2011). That is how, based on the notion of mediation, we propose to address the Basque farmhouse – installation, framework, network, rhizome – from three interconnected fields: understood as a framework to be entered, as the medium or the form of approaching and intervening, and as an exercise in articulating this process, with the aim of an alternative re-cognition.

Once the infrastructure of the object has been unfolded, the first field – installation, event, network, mediation – is that of the potential places, objects and events that are to be approached: anecdotes, relations, machines, tools, systems, images, markets, wheels, voices, experiences, etc. The Basque farmhouse as installation would be the mediation to be traversed, and with which to engage in conversation, that is, a space in which to discover new relations and compositions. More than a process of lineal mapping, it is the recognition of a dialogue that can compose perspectives open to other forms of identification, a logic where the farmhouse can transcend how it is usually perceived and become a sensorial, changing and multiple experience.

The second mediation is concerned with the form of approaching the setting from diverse disciplines, techniques, moments, elements and readings that would form part of the group of agencies itself – photographs, notes, affects, interventions, drawings, sounds, conversations, dance, technology, games, concepts, readings, evaluation, metaphors – from the position of a "participatory observer" (Foster, 2001). This is a positioning that, on one side, defuses the roles of the researcher, artist or ethnographer and their disciplines, adapting them to demands of the context and thus converting their agency into part of the network. On the other hand, these encounters, tools, objects and listenings will be mediating agencies. This means that everything that occurs will influence the group of agencies that map the form that the Basque farmhouse currently has or is acquiring. The interest resides in the fact that, instead of deploying, envisaging and describing the infrastructure "from outside", assembling it in a text, we would find ourselves inside it, as one more actant. This inclusion in the infrastructure involves intervening in, and registering the social flux of the event from a social space-time, whose framework would result in a form of identity (Selgas, 2007).

Finally, considering the mediation as an assemblage, it is possible to propose a device that consists in an artistic formalisation where the mapping of the Basque farmhouse displays all of its material and conceptual strength. This interweaving, transcending the narrative of a monumental object, appears as a new mediation that, instead of relating and presenting a closed discourse, would be organised to deploy itself in other meanings and forms of analysis and understanding. This is the articulation of a "wrapping" where the fragmented Basque farmhouse appears as a sustained, enfolded, but not permanent, identity (Selgas, 2007). Based on the exploration of new settings, relations and formats, this journey through the mediation of the Basque farmhouse would produce political agencements, and move us towards assuming a position in the discovery and registration of a poetics of its operativity, where "the aesthetic dimension of infrastructure (rather than its technical one) is dominant" (Larkin, 2013).

That being said, the space midway between the previously cited modus vivendi and the modus operandi, would lead into something like a mapping of its framework. From this perspective, opening up the Basque farmhouse as a network of information empowers the circulation of changing results. The mediations propose a process of interweaving, a series of methodological options for entering into the network and agglutinating related processes and narratives into a performative relation with this or some other cultural object. However, we are taking this problematisation to a point where the aim is not to provide solutions to the identitarian controversy of the Basque farmhouse, but to situate ourselves as "ethnographers of its operativity", making art into a kind of speculative research design, and the infrastructure into an active and performative agent of cultural identity.

6. Conclusion: The enfolding and unfolding of a cultural infraestructure

The Basque farmhouse as a referential element constitutes a closed model whose functionality irradiates an illusory and opportunistic image of Basque culture. In its more conventional form, we treat it as a fetish, an object onto which an essential cosmovision of identity is projected.

From archetype – enfolding – to infrastructure and open prototype – unfolding – we propose a displacement where the anthropological object starts to be conceived as a framework, as a network open to capacities that go beyond their "emblematic" reproduction. Indeed, we have deployed the Basque farmhouse so as to engage in a dialogue with its process of configuration, an exercise that depends on the operative potential that is unfolded or that its agencies obtain.

We repeat that the object is an infrastructure whose logic is relational. The most attractive conceptions of the Basque farmhouse, those that synthesise its imaginary are, nonetheless, incapable of showing its complexity. For that reason, we have explored the framework that sustains and produces the meaning of the object, which involves confronting the inertias that shape it as an identitarian totem.

As a result, we move from the simile of the enfolded prototype, a process of blackboxing, designed for an essentially symbolic purpose, to envisaging the cultural object as a laboratory capable of being unfolded and operating in a speculative way. In spite of everything, the problematic of the Basque farmhouse includes its being an element that is enacted in the movements of both unfolding and enfolding. In its most essential form, enfolding "inscribes specific versions of the political", which delimits the transcendence of its meaning, attacking the cosmopolitics of its agencies. For its part, unfolding "proposes new types of bodies, entities and places as political" (Dominguez & Fogué, 2017, p. 100).

Unfolding the cultural object, where appropriate, opens up its identity to a performative field, alterable in each associative event that, nonetheless, we are obliged to crystallise in narratives – experiential, artistic, economic, commercial, etc. – where alterity is once again encrypted. Like a wave, tracking a framework imposes an enfolding that, although it is temporary, provides it with a certain commensurability. However, each one of these political negotiations might trigger a debate that is able to continue displacing the social and identitarian reality of the object towards other forms of continuing to be. This is the paradox of our practice, an exercise where the greatest potential perhaps lies in the fact of activating and expanding new vanishing points.

Also proposed throughout this article is the displacement of the anthropological object towards the notion of artistic installation. The question now is not how objects have been interpreted from one or another discipline, but how to intervene, mobilise, register and assemble from the perspective of a language, that of cultural innovation, that makes their relations tangible.

Operative ethnography would address this tracking from the perspectives of debate and political consciousness, which register the sub-flow that is given in each assemblage and their subsequent expansion, and the circulation of these agencies in other networks and frameworks. In any case, this is a subversive re-cognition, a transdisciplinary experiment that equips us with resources for a politically active mapping (Stengers, 2014, p. 27), a mediation of the forms in which an object like the Basque farmhouse can be intercepted, while at the same time shaping, and being shaped in, new forms of action.

Referencias

Allÿs, F. (2022*). Paradox of praxis 1. Sometimes making something leads to nothing.* https://francisalys.com/sometimes-making-something-leads-to-nothing/

Amezaga, A. (2018). *Inor ez delako profeta bere herrian. Gabriel Aresti egunean.* Erein.

Augé, M. (1993). *Los "no lugares" espacios del anonimato: Una antropología de la sobremodernidad*. Gedisa.

Bajtin, M. (1991). *Teoría y estética de la novela.* Taurus humanidades.

Benjamin, W. (2016). *Tesis sobre la historia*. Caum.

Berriochoa, P. (2012). *Como un jardín. El caserío guipuzcoano entre los siglos XIX y XX.* Servicio Editorial de la Universidad del País Vasco / Euskal Herriko Unibertsitatea (UPV-EHU).

Bishop, C. (2008). El arte de la instalación y su herencia. *Ramona. Revista de Artes Visuales*, *78*, 46-52.

Bolter, D. J., & Grusin, R. (2011). Inmediación, hipermediación, remediación. *CIC Cuadernos de Información y Comunicación*, *16*, 29-57.

Butler, J. (2007). *El género en disputa. Feminismo y subversión de la identidad.* Ediciones Paidós.

Corsín, A. J. (2014). Introduction. The prototype: more than many and less than one. *Journal of Cultural Economy, 7*(4), 381-398.

Corsín, A. J. (2018). *La aventura de aprender. Reclamar las infraestructuras*. Medialab Prado.

Deleuze, G., & Guattari, F. (1987). *A Thousand Plateaus: Capitalim and Schizophrenia*. University of Minnesota Press.
   — (2000). Rizoma. Introducción. Pre-textos.

Dewsbury, J. L. (2000). Performativity and the event: enacting a philosophy of difference. *Environment and Planning D: Society and Space, 18*, 473-496.

Doménech, M., &Tirado, F. J. (2001). Extituciones: del poder y sus anatomías. *Política y Sociedad*, *36*, 191-204. https://revistas.ucm.es/index.php/POSO/article/view/POSO0101130191A

Dominguez, F., & Fogué, U. (2017). Desplegando las capacidades políticas del diseño, *Diseña, 11*, 96-109. EITB (October 30, 2022). *Baserria.* https://www.eitb.eus/eu/telebista/programak/baserria/

Etxebeste, O. (2022). *Baserri Hedatua*. Fundación Kutxa.

Foster, H. (2001). *El retorno de lo real*. Ediciones Akal.

Gatti, G., & Muriel, D. (2006). El patrimonio, en el quicio de lo viejo y lo nuevo. *Azkoaga: Cuadernos de Ciencias Sociales y Económicas, 13*, 25-67.

Gell, A. (2016). *Arte y agencia: Una teoría antropológica*. Sb editorial.

Gorriarán, C. M. (1993). *Casa, provincia, rey: para una historia de la cultura del poder en el País Vasco* (Vol. 3). Alberdania.

Gorriarán, C. M., & Aguirre, I. (1995). *Estética de la diferencia: el arte vasco y el problema de la identidad, 1882-1966*. Alberdania.

Gurrutxaga, A. (1990). *La refundación del nacionalismo vasco*. Servicio Editorial de la Universidad del País Vasco.

Krauss, R. (1979). The sculpture in the expanded field. *October*, *8*, 30-44.

Larkin, B. (2013). The Politics and Poetics of Infrastructure. *Annual Review of Anthropology, 42*(1), 327-343.

Latour, B. (1999). *Pandora's hope: essays on the reality of science studies.* Harvard University Press*.*

   — (2007). *Nunca fuimos modernos. Ensayo de antropología simétrica.* Siglo XXI editores.
   — (2008). *Reensamblar lo social. Una introducción a la teoría actor-red*. Editorial Manantial.

Manterola, I. (2017). *Maite ditut maite: Transmisioa XX. mendeko Euskal Herriko artean*. Ediciones Edo.

Martínez de Albeniz, I. (2017). El arte como tecnología de la identidad: de la obra a la instalación. *Papeles del CEIC, 2017/1*, papel 174. http://dx.doi.org/10.1387/pceic.16963

Martínez de Albeniz, I. (2020). Objetos en revolución. Hacia una (cosmo)política idiota. *Poltica y Sociedad, 57*(2), 415-435.

Merres, N., & Lezaun, J. (2011). Materials and Devices of the Public: An Introduction. *Economy & Society 40*(4), 489-509.

Michael, M. (2012). De-signing the object of sociology: toward an 'idiotic 'methodology. *The Sociological Review, 60*, 166-183.

Montoya, J. M. (2004). Cultura vasca, globalización y posmodernidad. *Kobie. Antropología cultural, 11*, 41-68.

Sanchez Criado, T. (2016). Pensar infraestructuralmente. *Inmaterial: Diseño, Arte, Sociedad, 1*, 86-95.

Selgas, F. J. G. (2007). *Sobre la fluidez social: elementos para una cartografía.* CIS.

Stengers, I. (2016). La propuesta cosmopoltíca. *Revista Plyade, 14*, 17-41.

Urresti, J. (2021). *Tribiz, baserri galdue*. Scenic work.

Yudice, G. (2002). *El recurso de la cultura.* Gedisa.

Zulaika, J. (2000). *Del cromagnon al carnaval*. Erein.

Research Article

Iruinkokoa: A case of folkloric innovation in an urban environment

Iruinkokoa: un caso de innovación folclórica en un entorno urbano

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Abstract: The case considered here takes us on a journey through the Basque carnival, Iruinkokoa, a space where innovation in folklore opens opportunities for forming relationships and experiences, and where the Basque language becomes one of the main vehicles for these experiences. The carnival ritual becomes a dynamic artefact, capable of adapting to our constantly changing times from beneath its perennial guise and establishing common meeting points. In other words, dance, music, and theatre can be perceived as converging elements (interfaces) that favour interventions between different agents and prolong/expand themselves through the network towards other interactions (either through regulatory or official spheres, or through the opportunity encounters provide for creative drift). The concept of articulation makes it possible to consider the past as an extended network where culture and identity are constantly being constructed and reconstructed from the present.

Keywords: Innovation; folklore; networks; urban carnival; tradition; Pamplona; Iruinkokoa.

Resumen: El caso que nos ocupa es un viaje a través del carnaval vasco, Iruinkokoa, un espacio donde la innovación en el folklore abre oportunidades para establecer relaciones y experiencias, y donde el euskera se convierte en uno de los principales vehículos de estas experiencias. El ritual carnavalesco se convierte en un artefacto dinámico, capaz de adaptarse a nuestros tiempos en constante cambio desde su apariencia perenne y, de establecer puntos de encuentro comunes. En otras palabras, la danza, la música y el teatro pueden percibirse como elementos convergentes (interfaces) que favorecen las intervenciones entre distintos agentes y se prolongan/expanden a través de la red hacia otras interacciones (ya sea a través de ámbitos normativos u oficiales, o a través de la oportunidad que los encuentros brindan a la deriva creativa). El concepto de articulación permite considerar el pasado como una red ampliada en la que la cultura y la identidad se construyen y reconstruyen constantemente desde el presente.

Palabras clave: Innovación; folclore; redes; carnaval urbano; tradición; Pamplona; Iruinkokoa.

1. Introduction: Aintzina Pika[1]

The contemporary individual in hypermodern times is defined by their consumption: fashion, luxury, ethical metamorphoses, etc. Consumption marks the individual's place in society and the personal satisfaction brought by the "new" leads to a context of continuous renewal. The past is to be forgotten; the obsolete only worth recovering when market models, with their operational criteria, deign to acquire and display it as a commodified cultural offering within a global consumption framework through museums, protected heritage, and commemorative celebrations, etc. In this way, the individual consumes any given option on offer in the wide catalogue of experiences, according to their whims.

In these conditions, where the individual and the ephemeral have become more important than the collective, we might ask ourselves what the point of folklore is, and what its function is today. In view of the above, it may have some value as a raw material for consumption, with potential for transformation into merchandise according to the interests of the governing rationale in each case (tourism, entertainment, etc.).

Yet, this need not be the only way. An analysis could be made of the types of convergence between the heterogeneous elements that create an "event," offering different individuals the opportunity for enjoyment in order to live, experience and identify themselves through common values. These would generate collusions from which to create, manage or inhabit a common heritage and open the door to innovation. Far from the stagnant vision of this type of manifestation in the form of frozen heritage, our focus is on the urban carnival in Pamplona called Iruinkokoa with the aim of witnessing folklore becoming a dynamic artefact, capable of adapting to times of constant change and establishing common meeting points.

Participant observation carried out during the preparation of the carnival and its subsequent celebration in 2022 helped establish relationships with the actors, the environment, and the events of everyday life in Pamplona. Interviews, recommended readings, rehearsal attendance, and keeping up to date with everything on social networks surrounding the pro Basque social movement community in Pamplona, among other sources, provided a wellspring of information. In a labyrinthine way, this has constructed a narrative, or lived experience, surrounding the subject of study, culminating in a composition of place.

2. "The rest will emerge from the same trunk we were born from"[2]

Folkloric manifestations like music, dance and theatre have long been practises destined for the enjoyment of the practising community. However, Martí i Pérez (1996) locates the emergence of an awareness of a traditional culture linked to the (disappearing) peasant world at the end of the 19th century. An awareness that instrumentalised folklore and turned it into the repository for a series of elements (raw materials) capable of preserving identities sustained by political projects (initially of a nationalist nature). These were manifestations (dance, music, theatre, etc.) which, under the concept of inherited heritage, contain a series of the values and norms (narratives) of today that identify a group. Having their own past legitimises the group and tradition is the vehicle that consolidates this identity: an identity that comes from long ago, and which cannot last unless cared for.

Hobsbawn and Ranger (2002), Anderson (2006) and Buckland (2001) among others, have highlighted the importance of the research into and invention of traditions and/or folklore, as well as the consequent transformation of the local into the national (the relationship between local

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[1] *Aintzina Pika* is a dance in the *ihauziak* suite in which spectators are invited to join in the dance by forming a circle in the town square. The dance usually follows these steps: *aintzina pika* (front heel to back instep – four times), *xinple lauretan, zeina* (simple step – four times), *ezker-eskuin* (left-right), *ezker eta hiru* (left and take three), *eskuin* (right*)*. It is a game; taking "the first step," offering an introduction, and inviting people to take part in the dance, the reading.

[2] These words, translation of the original sentence in Basque "*Gu sortu ginen enbor beretik, sortuko dira besteak*" form part of the poem entitled *Izarren hautsa*. Written by Xabier Lete (1974), it was released as a song on the 1976 album *Kantatzera noazu* by the same author.

time/space/actors is broken to allow the national dimension in). According to MacCanell (2017), such a separation breaks the solidarity of the groups in which they originally emerged and frees them from traditional ties into a modern world where attempts are made to discover or reconstruct cultural heritage or social identity. As a result, the actors are faced with a dilemma that provokes anxiety and/or tension, and that they have to resolve authenticity.

The dialectic of authenticity transcends and subsumes old divisions (humanity/society, normal/abnormal), radically reformulates them, and reduces them to dramatic rather than legal categories MacCanell (2017). In this sense, Hughes-Freeland (2006, pp. 55-56) argues that the rhetoric of unity and authenticity attributed to traditional activities (both local and national) has more to do with political strategies of legitimation than with facts. That is, affirming that traditions have long been in place favours the dominance of the dominant culture, as well as legitimising the construction of a coveted past.

The contribution made by feminist anthropology is instructive when it comes to dealing with the tensions derived from tradition, as well as the management of heritage and participation in festivals. Regarding women's participation in festivals in the Basque Country, Bullen, Díez Mintegi and Kerexeta (2012) establish a relationship between the rootedness and rigidity of the festival; the more deeply rooted the festival, the greater the impediment to equal participation; the more recent the festival, the more accessible to women's participation. As discussed above, the link to the past favours the dominance of the dominant culture since time endows tradition with a symbolic charge and calls for protectiveness and guarantees for its eternal survival.

The desire for fidelity to tradition is a positioning that appears watertight[3], representing heritage through immutable archetypes. Tradition would thus be like a tree, that, once sectioned, could expose the radial lines in the heartwood, or the hierarchically subordinated concentric rings, each of which would represent the different generations of the community. In the words of Boris Groys (2022, p. 79), alluding to Foucault, it is a "place where time accumulates" or an "other space."

In a comparison between tools (or consumer goods) and works of art, Groys notes that while the former are resources which get exhausted, wiped out, or depleted through use, the latter are destined to last, since, instead of being used or consumed, they are meant to be contemplated (as well as cared for and protected). Groys' analogy between art and humanism, or the museum and the hospital (with their shared care and protection aims), is incisive: it gives the human being the capacity to be contemplated and consequently cared for and protected. Thus, "[h]uman beings traditionally want to be desired, admired, looked at – to feel themselves as especially precious works of art" (Groys, 2022, p. 79). It could, consequently, be affirmed that the dancers, the musicians, in short, the actors who occupy the streets and take part in folkloric manifestations, set themselves up as models to be observed and admired (cared for and protected).

3. After glaciation

In issue 38 of Dantzariak magazine, published 1987, an article entitled, "Acerca de la composición de danzas nuevas" under the mysterious signature of J.L. (from the Navarre Association of Basque Dancers - EDB as per the acronym in Basque), lays out the first approach to the creation of new dances:

"In this text we aim to broach a subject which is as interesting as it is controversial (the creation of new dances), and to promote a debate we consider extremely important. It is especially important at present because it is so contentious for traditional culture and validated forms of choreographic expression, despite the fact that the invention of dances

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[3] I say appears because following actor network theory (Latour, 2008), actors could be seen as able to prompt relational agents arranged around a network, thus, the network would also be taking part actively and reactively through mobile phones, video cameras, loudspeakers, food, and drinks. None of this would have a place in the tradition from the point of view of authenticity, and yet, they are welcome because they help to reinforce the ritual and thus reaffirm dominant values (who participates, how, and when, etc.).

has been taken up at different historical moments and was potentially accepted more naturally at any other time than it is today" (EDB, p. 8).

From the offset as well as throughout the text, the proposal for creation is conditioned by an adverse context. Concepts such as controversy, conflict and lessened natural acceptance denote their apprehension that the proposal would face a certain degree of opposition. In addition to this, in an article from the periodical Txistulari by Joxemiel Bidador, published in 1999 entitled "Las danzas de San Lorenzo de Pamplona," the mysterious initials J.L. (from EDB Navarra), were revealed to belong to Jesús Pomares and Mikel Larramendi (J. for Jesús and L. for Larramendi). It is conceivable that the authors wanted to remain anonymous to shield themselves from the derision of the upholders of tradition (which was understood to be under an inviolable protection mandate). This appears ever more likely based on the final note of the article "Baile de la Era" (2014/2015) by J. Pomares, where he proposes choreographic variations for the Dance of the Age that gives his article its title:

> "After the glaciation, were the dogmatic groups of surviving dances to allow it, the Dance of the Age could thaw, shifting from time to time from jota, to waltz or boleras, thus returning to the old, natural normality. Some of us will already be in hell, safe from the xirula[4] and accordion fanfares" (Pomares, p. 78).

In this adverse context, Pomares and Larramendi start from the premise that there is little or nothing left to invent in folk dances, and after an analysis of the most recent (20th century) dances, they point out that no new elements are to be seen, "they simply recast and organise known elements, structures and steps, until they compose, with varying degrees of success, a single whole to the taste of the person who devised the assembly" (p. 8-9). It follows that, rather than invention, it may make sense to talk of "re-creation" or "re-adaptation."

The authors shed doubt on the significance temporality actually has in the evaluation of how traditional dances are, since such a qualification is meaningless where the dances are understood to be in constant evolution (they are born, they grow, and some of them disappear). From this (perhaps more liquid)[5] perspective, the dilemma of authenticity would find its limits in one moment in space/time. Thus, if authenticity as a concept is to be used properly, it must be used alongside the highest possible degree of precision (authentic to that time, that space, and that person). There would be no absolute authenticity, only relative contextualised authenticities. Instead of temporality being the main factor legitimising dances, their reception and usage would take priority. Their endurance over time would depend on how fitting and functional they are.

The challenge for newly created dances would thus be based on functionality and the ability to satisfy the needs of the group performing them. Pomares and Larramendi stress the importance of rigour and thoroughness in the work of combining "decorative elements" (music, instruments, costumes, and choreography) to ensure the best match and overall fit. Within these parameters of rigour and precision, creation could be understood to open up to alternatives where, instead of reinventing dance, the dance itself is experienced as situated on the edge, in the tension between tradition and innovation, between the acceptable and the unacceptable.

Drawing on the work of Latour (2001), newly created dances, far from fetishes (manifestations associated with a set of beliefs that have to be protected) could be considered factishes, where the exercise of experimentation gives rise to a re-reading in which the contribution of freely chosen creative resources would have a place. This would mean that the difference between that which is constructed/created and that which is received/inherited (the immanent and the transcendent) might go unnoticed.

We are talking about a space in which a constant debate is played out between cultural heritage (patrimonialisation) and the type of relationship we want to have with it. Here, Said's (2008) proposal regarding the relationship between "synchronic essentialism" and diachrony

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[4] The *Xirula* is a traditional wooden flute.

[5] Z. Bauman (2004) sees change as extremely important – accordingly transience and the need to adapt to new contexts take on fundamental significance for understanding current times.

offers much insight. While "synchronic essentialism" acts as a firm anchor for total identification (or fixation of truth), setting it in motion through repetition (in order to reinforce the effect of fixation), leads to diachronic forms, which end up destabilising any attempt at fixation. This constant dialogue between the permanent and the transitory is driven by the search for alternatives that attempt to learn about and reflect on the past from the present in an active way[6].

In view of this, it makes sense to consider Etxebeste's (2018) proposal that articulation as a concept is much more fitting than patrimonialisation for the purposes of reflecting on the diachronic links between past and present. As Etxebeste himself indicates, articulation allows us to consider the past as an extended network where culture and identity are constantly being constructed and reconstructed from the present (2018, p. 61). The notion of network (Latour, 2008) makes it possible to consider connections between different fields that derive in events, experiences, or ties that generate and produce meanings. Folkloric manifestations (dance, music, and theatre in our case) may thus be perceived as powerful connecting axes (interfaces) that favour interventions between different agents and prolong/expand themselves towards other interactions (either from normative or official spheres, or from the opportunity that the encounter provides for creative drift).

For example, in the case of Iruinkokoa, we find the Ekialdeko sokadantza dance, which was initially just going to be called sokadantza[7]. It coincided in its creation with the viral meme 2021 ekialdearena da[8] (2021 belongs to the east) promoted by the writer, violinist and translator[9] Hedoi Etxarte. As part of the cultural explosion in the wake of the meme, the name of the dance was changed to Ekialdeko sokadantza. In this case, the past (represented in the most widespread social dance) merges with the present (social networks and meme culture) and the name of the dance acts as a connecting axis (interface) disturbing memory and time. Literature, poetry, internet, music, trap, humour, propaganda, all participate active and reactively in a process, arranged in a network, and must be taken into consideration as actors capable of inciting relational agencies.

This vision of the "actor network" (Latour, 2008), helps analyse the ties established between different actors, the relations of transformation and mediation between agents, as well as the testimonies derived from the constant construction/reconstruction that they project. Such constant negotiation makes it impossible to give substance to a specific definition. Instead, our focus will be on the analysis of the mediations, relations, controversies, modifications, and consequences that occur within the actor network.

To sum up, using this approach could enable the opening of new perspectives in an environment of constant change. Folkloric manifestations of dance, music, and theatre may enjoy freedom of action. Practices of enjoyment may emerge, at the same time as actions that generate values, practices, and relationships that affect and represent the community that practices them. The "actor network" perspective enables the construction of new folkloric manifestations based on this articulation, which in turn facilitates an approach to the past from the network, where culture and identity are constantly being constructed and reconstructed from the present. This starting point enables commitment to be made to the significance of what is built and allows the construction to be carried out well (with rigour); it makes it possible to attract the community, and to participate from assigned roles.

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[6] Comas d'Argemir (1998, p. 47) argues that what we understand to be traditional only acquires meaning in the present and that it is a product of that present.

[7] In an entry in the *Auñamendi* encyclopaedia written by Sánchez Ekiza, the *sokadantza* (or rope dance) is defined as, "a generic name: the name given to the most widespread social dance in Vasconia throughout history. The name is quite appropriate, since the dancers, one by one or in pairs, form a line, chain, or rope throughout almost the entire dance" *()*.

[8] The meme highlights the creative explosion in the Pamplona region (in relation to the rest of the Basque Country) in diverse fields including music, literature, theatre, and spaces for coming together in Basque and to promote Basque. See: https://mobile.twitter.com/ekialdearena

[9] According to the Wikipedia page about him.

4. Iruinkokoa: The Basque carnival in Pamplona

Three main factors converged in the creation of the Iruinkokoa urban carnival: 1) the opportunity offered by a space to occupy in the calendar; 2) the work dynamic that took shape between different agents in the creation of the pastoral performance Joxemiel Bidador - Iruñeko Euskaldunak; and 3) the invitation to create a Libertimendu[10] performance of their our own in response to the proposal of bringing one from Bayonne[11] to Pamplona.

As for the opportunity of room in the calendar; according to Ramos (1998), the celebration of the carnival in Pamplona did not have its own identifiable space beyond its celebration by some groups of people in costume and a smattering of street acts:

"Following a process of uncertain recovery, carnival, after its prohibition and disappearance in the wake of the Civil War, is once again appearing on the festive scene in Pamplona. Two decades after recovery, groups in costumes can be found on the Saturday night of carnival and a few acts can be seen in the old town, although we can by no means speak of a full-flung carnival, and it is common for people to go to neighbouring towns where the carnival is experienced in all its intensity: Lanz, Tolosa, Lesaca, Tafalla, or the new carnival in Alsasua." (Ramos, p. 446).

It is in this absence of a significant festival that the opportunity arose to create Iruinkokoa. Although throughout the year Pamplona enjoys an impressive festive calendar, the biggest being San Fermín (of the summer festivals), at the other end of the year (winter festivals), Pamplona lacked a big event. This void presented itself as an opportunity, a space where the Basque-speaking community and pro-Basque social movements could identify with and interact with each other.

As for the work dynamics that arose during the process of creating the pastoral performance Joxemiel Bidador - Iruñeko Euskaldunak, this tribute to the writer, researcher, teacher, and pro-Basque movement activist, Joxemiel Bidador, was held in 2015. It was organised by groups working to promote Basque language and culture (Euskaldunon Biltoki, Karrikiri, Duguna, and Zaldiko Maldiko)[12]. The result of this joint effort was the recognition of Bidador's work and the clear demonstration that there was a community living and interacting in Basque. The positive impression left on participants in relation to the work dynamics adopted through the creation process, showed them how important it was to take advantage of the relationships created and maintain them.

Lastly, we turn to the third favourable circumstance, the invitation to create their own libertimendu. This came after the literary festival organised by the periodical Maiatz, known as Maiatzaldia. As part of this festival, a libertimendu was held in Zizpa squatted social centre in Bayonne, which the Duguna and Karrikiri associations wanted to bring to Pamplona with the aim of strengthening cultural ties between the two cities. However, given how important local gossip and occurrences are in this type of celebration, they were encouraged to create their own.

Iruinkokoa then, can be understood to have been created to fill a void (the winter festival), adopting a ritual that was also carnival-like (libertimenduak) as its initial inspiration, and making use of the work dynamic between different cultural agents that arose through the pastoral tribute (Joxemiel Bidador - Iruñeko Euskaldunak).

We are talking about winter festivals bursting with ritual and symbolic content, in which components are often arranged in categories and processions (like the reds against the blacks in the Soule masquerades). Representations of forms of social organisation and the foundations of life in society are thus made evident through their dramatization (Fernández de Larrinoa, 1998). This is a function which would, to a great extent, be fulfilled by the libertimenduak.

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[10] In the discussion that follows there is a discussion of what these kinds of manifestation consist of.

[11] Bayonne is the capital of Labour and the main city of the northern Basque Country, twinned with Pamplona since 1960.

[12] There were also people from different areas and groups who came as individuals, rather than in representation of collectives (musicians, singers, and dancers from other dance groups in Pamplona).

Fallen into disuse in the 1980s, the writer, playwright, and dancer Antton Luku revived the practice. According to him, this celebration is situated at the changeover between the departing winter and the coming summer. However, the representatives of winter will not leave without first recounting and criticising the dark events that transpired in the town. This dialogue between old and new, between right and wrong, takes place through symbolic inversion; the bolantak versus the zirtzilak performers[13].

With Basque as the central axis on which relationships are created and lived, the libertimenduak consists of a Kabalgada or procession through the town towards a landmark (like the town square), where the theatrical performance, or jokoa, will take place. First of all, the zirtzilak come out and perform an initial sketch for the audience. Once they have done so, they leave the stage to give the bertsolariak[14] the chance to sing about what the zirtzilak have performed. After the improvised verses, it's time for the bolantak to take centre stage with their dance. This cycle of zirtzilak/bertsolariak/bolantak is repeated several (4 or 5) times. During the Zirtzilak theatrical representation, anecdotes from the preceding year are brought into the dialogues to amuse the audience, both from the town and from outside it[15].

The new Pamplona carnival, Iruinkokoa, is built on the foundation of the libertimenduak, though it also incorporates a number of components from the paloteado[16] festivals held in the south of Navarre (which, like the libertimenduak, have plenty of time for theatrical mockery and jokes), as well as the asalduak, or the stops that take place along the procession route where eating in company takes on a special significance (like the barrikada haustiak of the Soule masquerades) and the group known as fauna; a kind of mixed group within the black part of the carnival, made up of different characters or elements that are recognisably linked to carnival or to Pamplona (the doctor and the mad patients, the Chinese dragon with the face of Pamplona's famous fountain, etc.)[17].

Figure 1. Illustration of the representation of the Kokozuriak in Plaza Santa Ana[18].

Source: Zabala Zuazo, X. (2022).

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[13] The *libertimenduak* are very similar to the masquerades of Soule. Thus, the *bolantak* could be associated with the reds (propriety, mastery in the execution of the dance) while the *zirtzilak* could be associated with the blacks (impropriety, grotesque attitude, etc.).

[14] *Bertsolaria*, is the name given to those who perform *bertsoak,* sung improvised verses which often satirize, or call attention to hypocrisy behind local figures and events, and in which communication with a diverse range of agents takes on special significance.

[15] It is important to note that the participants relate to each other in Basque, both throughout the ritual and during the previous months of preparation.

[16] Traditional folk theatre and dance from the same family as the Morris dance.

[17] Although this last group does not play a major role, it can be seen to acquire greater significance as it fulfils the function of a "talent pool" where novices make their first contact with the carnival and its celebration.

[18] All illustrations reproduced in the present article came from the 2022 carnival and were drawn by Xabier Zabala Zuazo.

This whole operation is carried out in accordance with two unwritten rules. First, relationships are built and carried out in Basque. Second, the roles of the younger and older participants are established in such a way that the former play the different carnival characters (kokozuriak, kokobeltzak, musicians or fauna) and the latter are in charge of things like logistics, bureaucracy, and know-how[19]. Through this relationship, experience is passed on from old to young and the young get to enjoy taking centre stage in the street.

However, although the structure of the festival is pre-defined, the choreography, music and other aspects that make up the carnival still have to be created and defined. After a period of training through talks, colloquiums, etc., four working teams get defined: the dance composition team, the music composition team, the theatrical composition team, and the costume team. It should be noted that while the first two work hand in hand, in a coordinated manner, the theatre team work in isolation (and to a certain extent in secret).

After months of hard work, in 2019, Iruinkokoa hit the streets of Pamplona for the first time (Iruinkokoa, 2019). An early lunch brings the festival organisers together, who meet in good time to finalise the preparations and put the final details in place. The txupina (firecracker) kicks off the celebration and parade, with the kokozuriak going first, followed by the band, and then the kokobeltzak and fauna[20]. The scheduled parade progresses through the old part of the capital of Navarre, stopping at cultural associations, gastronomic societies, taverns, etc., all of which are related to the Basque language and the world of Basque culture[21]. At these visits, known as asalduak, the procession stops and the bertsolariak dedicate a series of bertsoak to the place. Afterwards the hosts, in turn, offer everyone food and drink. The visit ends with a song or Ihauzi everyone can sing along to. The transitions from stop to stop are accompanied by paloteados and the aforementioned disruptions instigated by the kokobeltzak and the fauna. As the morning goes by, more and more spectators join the procession until it reaches Plaza Santa Ana, where like in the libertimenduak, there is an alternation between the kokobeltzak's theatrical performance, the bertsolariak commenting on the sketches performed, and the dances of the kokozuriak. In the 2022, performance, the themes dealt with focused on the most relevant events of the year:

- COVID - they represented the way of dealing with the virus from the hotel and catering industry, parodying the contradictions occurring day in day out.
- Underwater - (Plaza hartzea korrikan) - a parody was made of the floods and some political events from the town hall (the parking meter regulations in Txantrea, the schools for children in Basque, the equestrian exhibition, etc.).
- 21 Ekialdearena da (21 belongs to the East) - a parody of cultural trends and the artists that stood out (the Matalaz and Laba associations, the bertsolaritza final in Pamplona, etc.).
- Dictatorship (twitter), in which they dealt with the deaths in the Mediterranean of people fleeing the war in Syria and famines in African countries, the dispute between the GKS and Ernai associations, the Sahara, the coup d'√©tat in Burma, etc.

Lastly, the whole procession moves into the centre of the square and invites the spectators to take part in the last dance. After this, and after drifting into huddles of friends, family, and neighbours, etc., swapping impressions, the participants gather around a table to eat and continue the festivities.

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[19] With the exception of the aforementioned areas, they will only have appeared in public as protagonists through the "sale" of the *Ziringolak*. A distinctive feature of this carnival which, in the form of a badge, is offered to the public in exchange for voluntary contributions. The proceeds are used to cover expenses.

[20] Although the formation was originally kept in the order indicated, over time the *Othamena* call has been introduced, which means the formation can be broken. The first notes warn the *kokobeltzak* and the fauna to take to the streets shouting and sowing chaos. The next call will be to return protagonism to the *kokozuriak* and restore the initial order.

[21] The criterion for visiting these places may be either at the request of the groups, societies, taverns, etc., or thanks to initiative taken by the *Iruinkokoa* organisation. Once the places to visit have been defined, the smoothest possible route is planned.

Using Goffman's concept of "front and back regions" (1959), what is described above belongs to the front region, as a meeting place between actors and spectators, the dining room where the carnival officially takes place in the eyes of the community. The back region consists of where the cooking happens, the hidden part where public access is restricted, and the logistical creative part: the space in which the relationship between what has been inherited and what has been created may be situated. By way of example, a series of the most remarkable processes observed will be highlighted (although these are not the only ones).

These include the choice of band, the creation of the dance, and the kokobeltzak's attire. The band that forms part of Iruinkokoa is a brass band, a type of band that according to Wikipedia could be defined as: A brass band is a musical ensemble generally consisting entirely of brass instruments, most often with a percussion section. Ensembles that include brass and woodwind instruments can in certain traditions also be termed brass bands (particularly in the context of New Orleans and Japan–style brass bands), but may be more correctly termed military bands, concert bands, or "brass and reed" bands ("Brass band," 2021).

It seems obvious that a band of American origin would have no place from the point of view of synchronic essentialism. Such a band could be interpreted as something alien, however, we cannot forget that Pamplona has a long-standing culture of brass bands and an extensive popular repertoire for this type of band. Those places with brass and percussion ensembles share common heritage; military origins (military bands), transition to civilian bands (in the case of Pamplona, it makes sense to highlight the deep roots of La Pamplonesa brass band and Los Exploradores before them) and the leap to smaller formats as seen in the brass bands of India and New Orleans or the fanfares and charangas of the Basque Country. In addition to this connection, the carnival festival itself can be seen as another important a link between Iruinkokoa and New Orleans. Fernández de Larrinoa, in his work in 1998, collected testimony that appears to predict this connection:

> ... One of my informants hinted towards a proposal to create and institutionalise Züberoko Egüna, Soule Day. Mardi Grass, according to him, was the ideal date for such an event, since Mardi Grass is the materialisation of the spirit of carnival; and Masquerade, carnival and Soule are synonymous. So far, however, his idea has not taken root. (Fernández de Larrinoa, 1998, p. s56).

Although in this case the testimony speaks of the carnivals of Soule, the relationship between Iruinkokoa/libertimendua/masquerade of Soule is evident, so this analogy could be of use.

In addition to this correspondence between the style of the band and the music, it also makes sense to draw attention to the bands attire: a suit (dark jacket and trousers; navy blue or black) and a black and red cap. The detail of the cap is another interplay of links revealing military origins, given that it recalls the popular militias, which in turn evokes insurrection and Pamplona's links to the military insubordination movement, but also plays with the relationship between kokobeltzak and kokozuriak (or the reds from the Soule carnival perspective), alluding in this way to the neutral character of the band.

Figure 2. Illustration of the Kokozuriak.

Source: Zabala Zuazo, X. (2022).

Returning to Goffman's front region, the band is perceived as a charanga reminiscent of the orchestra in Mocho Armendáriz's film Tasio. This fits perfectly with the popular imaginary, and the identification of something as belonging.

Figure 3. Illustration of part of the representation of fauna.
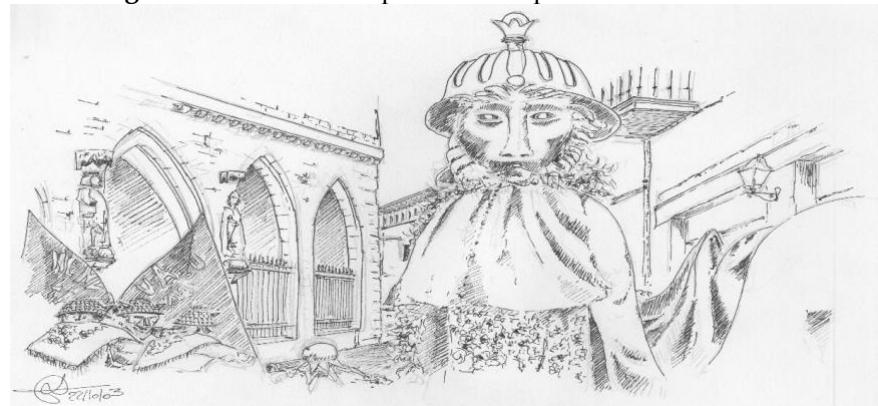
Source: Zabala Zuazo, X. (2022).

Another aspect worth highlighting is the choreographic composition. This is made up from of an ensemble of steps and dances taken from different parts of the Basque country: from the ihauziak from the north, passing through the soka-dantza and ending with the paloteados from the south. The alternation of styles is combined with a mixture of steps (chosen and composed according to the requirements of each dance) that spatially interconnect not only the aforementioned geography, but also extend to the rest of the planet. Unnoticed by the spectator, the choreography of the paloteado includes steps from the Indian subcontinent. Through social networks (Facebook), a video was viewed in which striking similarities with the paloteados of Basque folklore in relation to the attire and the dress were spotted, and thus identified as belonging, making another choreographic resource available. As well as the choreography, the music used to perform the dance should also be highlighted; in the melody of the paloteado, an extract from the repertoire of the punk group Tijuana in Blue is recognisable. In the same vein, another example of interconnection can be found with the jota of the aforementioned Ekialdeko

sokadantza. For a jota to be identified and performed as such, a series of rhythms and structures must be used, however, once the basic rules have been fulfilled, there is plenty of room for creativity. In this case, the melody of the jota gets built out of parts of songs popular with young people, such as 31014 by Chill Mafia, Goizean Oskorri by Tatxers and Sortetxeari by Skabidean.

Lastly, we turn to the kokobeltzak's clothing and attitude. Both in the masquerades of Soule and in the libertimenduak, the blacks (the buhameak, the kauterak, or the zirzilak) are related to the wild/primitive world, to that which is not domesticated and which, at the very least, has to be monitored. However, this does not really resonate with Pamplona, an eminently urban environment. The wild aspect of nature is meaningless here, so the Kokobeltzak have to adapt. Thus, the attitude and clothing homes in on a different type of savagery, one that is more in keeping with the urban space and times. The dark colour is maintained, but the style is adapted to more urban archetypes. The model represented by the Shelby family (and its environment) from the Netflix series Peaky Blinders fits perfectly in such a place. The aesthetics of their shoes, boots, jackets, skirts, waistcoats, hats, etc., are adopted for the figure of the kokobeltzak. Social networks, streaming platforms, and audiovisual culture are infiltrated through these characters and some of the features of the Mardi Grass culture mentioned above slide in along with them, such as the black umbrellas. They all become part of the ritual.

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Figure 4. Illustration of musicians.
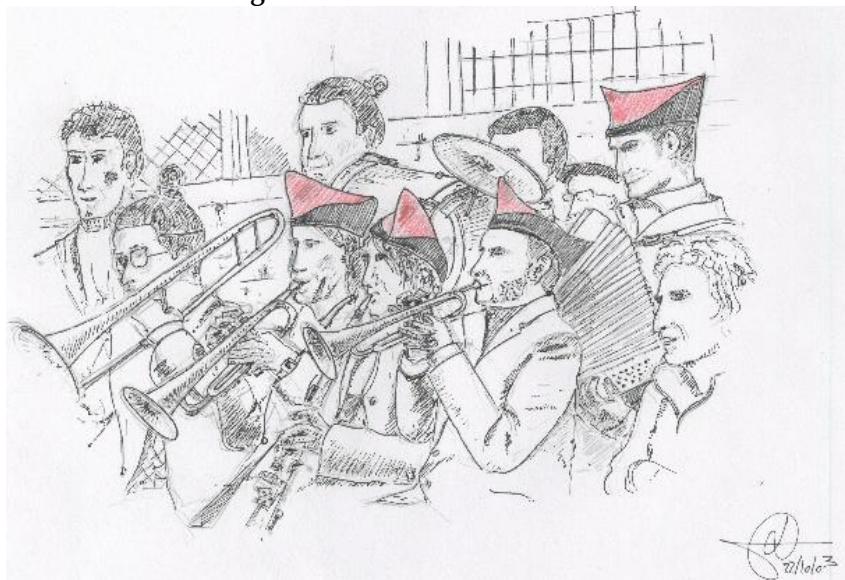
Source: Zabala Zuazo, X. (2022).

5. Final reflection (some thoughts on Iruinkokoa)

Iruinkokoak is also known as the Kokoak of Iruña (Pamplona in Basque). According to the Auñamendi encyclopaedia, in Navarre, KoKoa is the name given to those who are not from the valley. Kokoa is a derogatory way of referring to foreigners, to that community that moves ambiguously between those who are, but are not (those who are inside, but not quite). Those who, far from forming part of the roots instrumentalized by the dominant community and culture (those in the centre), are situated in the peripheries or at the margins. Simmel (2012) defines this space as a way out of reality's linear monolithic discourse, into a dialogical perspective on civilisation. Linearity or the authority of tradition makes it impossible to reflect critically on the self. In other words, it avoids dialogue or delving deeper in search of meaning. The marginal, on the other hand, presents itself as an opportunity to create dialogue and establish new spaces, new values.

Iruinkokoa embraces this dialogic perspective by opening up spaces, delving in deeper and conferring meaning to the community. This Basque carnival in Pamplona seeks to create

dialogues between inherited traditions and the different realities it coexists with (it spreads across social networks, through video streaming platforms, reaching bazaars run by Chinese migrants) to culminate in the construction of a space where people can relate to each other and generate living practices. We are talking about a lived practice, a "slow experience" that enhances the beauty of it all. Far from being an inheritance, with the burden of responsibility for its endurance or extinction firmly on the shoulders of successors, it is about creating spaces for participation. One informant explained it perfectly. At home, she said, she had been handed the responsibility of being Basque and told it was up to her to pass the baton to the generations to come, to make the legacy endure. She said that this obligation felt like a burden, a responsibility that seemed titanic, a legacy she was not sure she wanted to take on. However, through Iruinkokoa, speaking Basque became something natural, an experience or exercise that gave meaning to the practice of Basque. Indeed, several people mentioned that Iruinkokoa gave them the opportunity to relate to each other in Basque, something that would not have happened in other circumstances. Thenceforth, the relationship between these people got established in Basque outside the space/time of the carnival. We could say that, in this carnival practice, folklore becomes an experience, an opportunity to leave the peripheries behind, a place where new values for solidarity can be created.

Araolaza (2022) says that the creation of new manifestations opens up the opportunity to overcome conflicts or tensions, however, the practice is limited to dance groups. In the case of Iruinkokoa, although in the first year the practice was mainly limited to the Duguna dance group, it was later opened to other groups, and is now open to anyone who wishes to participate. In this sense, the work of the dance groups could be seen to take a turn and open up to the work of mediation. Through an "assembly of folklore" or "engineering of folklore", their contribution would focus on advising creation/innovation, so that, through accumulated knowledge (documentation, testimonies, etc.), they could articulate dance, music and/or theatre, to ensure what is created fulfils its objective: creating practices for the enjoyment of the community that practises them, at the same time as symbolic actions that represent the values of that community.

References

Anderson, B. (2006*). Imagined communities: reflections on the origin and spread of nationalism*. Verso.

Apodaka, E. (2015). *Identitatea eta anomalía*. Pamiela.

Araolaza, O. (2020). *Genero-identitatea Euskal dantza tradizionalaren eraikuntzan*. UEU.

Bidador, J. (1999). Las danzas de San Lorenzo de Pamplona. *Txistulari*, (180), 9-12.

Bourdieu, P. (2003). Sociología de la percepción estética. In *Creencia artística y bienes simbólicos. Elementos para una sociología de la cultura* (pp. 65-84). Aurelia Rivera.

Brass band. (28 nov 2021). In Wikipedia. https://es.wikipedia.org/wiki/Brass_band

Buckland, T. J. (2001). In a word, we are unique: Ownership and controlin an English dance custom. In G. Boyes (Ed.). *Step change: new views on traditional dance* (pp. 49-60). F. Boutle.

Bullen, M., Díez Mintegi, C., & Kerexeta Erro, X. (2012). *Emakumeak Euskal Herriko festetan*. Auñamendi Entziklopedia. Eusko Ikaskuntza. http://www.euskomedia.org/aunamendi/ee154096/143959

Comas d 'Argemir, D. (1998). *Antropología económica*. Ariel.

Etxebeste Liras, O. (2018). Art(e/i)kulazioa: Iragan-orainaldiko narrativa aktiboen eraikuntz, praxi artistikoaren diziplinartekotasunetik abiatuta. *Ausart Journal for research in Art*, (6), 55-71. https://ojs.ehu.eus/index.php/ausart/article/view/19391

Etxebeste Liras, O. (2022). *Baserri Hedatua*. Kutxa Fundazioa.

Ekialdearena da [@ekialdearena] (2021). Twitter. https://mobile.twitter.com/ekialdearena

Fernández de Larrinoa, K. (1998). De los límites y las transgresiones rituales. Fiestas de carnaval, danza tradicional e identidad social. En K. Fernández de Larrinoa (Ed.), *Fronteras y puentes culturales* (pp. 243-320). Pamiela.

Garmendia Larrañaga, J. (2022). *Kokoa.* Auñamendi Entziklopedia. Eusko Ikaskuntza. https://aunamendi.eusko-ikaskuntza.eus/eu/koko/ar-151319/

Goffman, E. (1959). *The presentation of self in everyday life.* Doubleday.

Groys, B. (2022). *The Philosophy of Care*. Verso.

Hedoi Etxarte. (21 marzo, 2022). In Wikipedia. https://es.wikipedia.org/wiki/Hedoi_Etxarte

Hobsbawm, E., & Ranger, T. (Eds.). (2002). *The invention of tradition.* Cambridge University Press.

Hughes-Freeland, F. (2006). Constructing a classical Tradition: Javanese Court Dance in Indonesia. In T. J. Buckland (Ed.). *Dancing from past to present: nation, culture, identities* (pp. 52-74). University of Wisconsin Press.

Iruinkokoa. (11 febrero, 2019). *Iruinkokoak hiri buruzagiko karrikak hartuko ditu martxoaren 3an*. Dantzan.eus. https://dantzan.eus/kidea/iruinkokoa/iruinkokoa-iruneko-inauteri-euskaldunak

J.L. (de EDB de Navarra). (1987). Acerca de la composición de danzas nuevas. *Dantzariak*, (38), 9-12.

Latour, B. (2001). *La esperanza de Pandora. Ensayos sobre la realidad y los estudios de la ciencia*. Gedisa.

Latour, B. (2008). *Reensamblar lo social. Una introducción a la teoría actor-red*. Manantial.

Luku, A. (2014). *Libertitzeaz*. Pamiela.

MacCanell, D. (2017). *El turista. Una nueva teoría de la clase ociosa*. Melusina.

Maia Soria, J. (2017). *Berriak jaio ginen*. Lanku.

Martí i Perez, J. (1996). *El folklorismo: uso y abuso de la tradición*. Ronsel.

Pomares Esparza J. (2014-2015). Baile de la Era. *Boletín de la Cofradía de los danzantes de San Lorenzo/ San Lorentzoko Dantzanteen Kofradiaren Boletina*, (4-5), 52-78. http://www.danzantesdesanlorenzo.com/documentos/Boletin%20Danzantes%20de%20San%20Lorenzo%204-5.pdf

Ramos, J. (1998). La danza en las fiestas y ceremoniales de Iruña través de la historia. Los Sanfermines de Pamplona en la superación de fronteras interiores. In K. Fernández de Larrinoa (Ed.). *Fronteras y puentes culturales* (pp. 439-551). Pamiela.

Said, E. (2008). *Orientalismo*. Debolsillo.

Sánchez Ekiza, K. (2000). Ideologías, identidades y religión en la danza tradicional vasca: el caso del aurresku. *Sukil: Cuadernos de cultura tradicional*, (3), 341-354.

Sánchez   Ekiza,   K.   (2022).   *Soka-dantza*.   Auñamendi   Entziklopedia.   Eusko   Ikaskuntza. https://aunamendi.eusko-ikaskuntza.eus/es/soka-dantza/ar-110609/#

Spinoza, B. (1969). *Ética*. Aguilar Argentina S.A. Ediciones.

Simmel, G. (2012). *El extranjero*. Sequitur.

Research Article

Dilemas paradigmáticos y procesos de innovación en la cultura gastronómica del País Vasco

Paradigmatic dilemmas and innovation processes in the gastronomic culture of the Basque Country

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Resumen: Este artículo hace un repaso de la evolución de la cultura gastronómica en El País Vasco en las cuatro últimas décadas. Más que a un relato histórico, el trabajo se enfoca en situar la cocina vasca, desde la Nueva Cocina Vasca hasta los desarrollos más contemporáneos, en el debate entre los distintos paradigmas gastronómicos. La gastronomía vasca se mueve, no tanto en una línea de creatividad e innovación disruptiva, sino en una deriva incremental que muestra un gran pragmatismo para adaptarse a las nuevas circunstancias, así como una enorme potencia institucionalizadora. El trabajo concluye con una propuesta para repensar la gastronomía e introducirla en el marco de un nuevo paradigma, la gastrología, de cara a hacer frente a los desafíos que ha planteado la reciente pandemia.

Palabras clave: gastronomía; complejidad; innovación cultural; País Vasco; industrias creativas.

Abstract: This article reviews the evolution of gastronomic culture in the Basque Country in the last four decades. More than a historical account, the work focuses on placing Basque cuisine, from the New Basque Cuisine to the most contemporary developments, in the debate between different gastronomic paradigms. Basque gastronomy moves not so much along a line of disruptive creativity and innovation, but rather in an incremental drift that shows great pragmatism in adapting to new circumstances, as well as an enormous institutionalizing power. The work concludes with a proposal to rethink gastronomy and introduce it within the framework of a new paradigm, gastrology, in order to face the challenges posed by the recent pandemic.

Keywords: gastronomy; complexity; cultural innovation; Basque Country; creative industries.

1. Introducción

En una publicación del Basque Culinary Center (2016), que conmemora los 40 años de la llamada Nueva Cocina Vasca, el cocinero Hilario Arbelaitz, propietario del Restaurante Zuberoa, cuenta cómo, un buen día, su colega Martín Berasategi entró en su cocina para saludarle: "A mí nadie me había dado la mano en la cocina". Esta anécdota, que data de la década de 1980, indica

que, incluso en fechas tan recientes, las cocinas eran lugares impenetrables, espacios vedados a toda colaboración e intercambio, incluso al protocolario. Las cocinas profesionales eran, literalmente, cajas negras (Latour, 1999). Se conocía lo que entraba y lo que salía de ellas, pero nada se sabía de lo que sucedía en su interior.

En una reciente reseña del restaurante Azurmendi, el crítico gastronómico del diario El País, José Carlos Capel, describe de esta guisa el proyecto gastronómico liderado por el cocinero vasco Eneko Atxa: "una suma de gestos y actitudes que giran en torno a la cocina. (…) En el corazón de este enclave subyace un entramado que integra a cocineros, pasteleros, productores, diseñadores, antropólogos, científicos"[1].

No mucho más de tres décadas separan estas dos realidades. ¿Qué ha sucedido en la gastronomía vasca para que de la cicatería en materia de "gestos y actitudes" se haya pasado a la toma de conciencia sobre su importancia? ¿Qué, para que una cocina cerrada a cal y canto, incluso para los y las colegas de profesión, se haya convertido en un sistema abierto a la concurrencia de tantos profesionales y tan diversas disciplinas? ¿Cómo ha enfrentado la gastronomía vasca el enorme cambio paradigmático que subyace en estas dos esclarecedoras anécdotas?

Evidentemente, no es éste, el de la cocina vasca, un cambio producto únicamente del "factor humano", de la voluntad de unos pocos "pioneros", por más que muchas veces se cuente así, habida cuenta de nuestra querencia antropológica a imputar el protagonismo de todo acontecer a la agencia y la intencionalidad humanas, así como a relatos de héroes (y villanos). Hablamos aquí de paradigmas (Kuhn, 2016), de procesos complejos y multidimensionales, procesos que se caracterizan sobre todo por una profunda renovación de los marcos cognitivos de la gastronomía y que tienen como su colofón una transformación paralela en el entramado institucional de la gastronomía.

En la actualidad, la gastronomía ha superado definitivamente una deriva tradicional que pendula entre la asunción tranquila del buen comer como uno de los rasgos de la identidad cultural vasca y la comensalidad como espacio de entendimiento, por un lado, y el frenético mundo de balances económicos, que entiende la gastronomía como una actividad más (eso sí, cada vez más importante) de la cadena de valor de la alimentación[2] y que es mensurable en términos de PIB (KPMG, 2019). Anécdotas como las referidas indican que la gastronomía ha virado hacia su conformación como sistema socio-técnico abierto a la colaboración y al intercambio intra- e interdisciplinar de conocimiento y expertise. Se podría hablar, en este sentido, de que la cocina y la gastronomía en general pasan de funcionar como cajas negras a hacerlo como sistemas de "código abierto".

Ahora bien, es necesario dilucidar el sentido de esta expresión en el contexto vasco. ¿Es la gastronomía vasca un ámbito abierto a gestionar la complejidad –la entropía- que ella misma ha generado estas últimas cuatro décadas o la expresión "código abierto" ha de entenderse, en su caso, salvo contadas excepciones, como una estrategia de adaptación a transformaciones culinarias que tienen su origen en otros lugares? En este artículo vamos a sostener que la gastronomía vasca se caracteriza no tanto por una creatividad/innovación disruptiva, sino por una excepcional versatilidad de orden "pragmático" a la hora de adaptarse a nuevos entornos. La gastronomía vasca es una gastronomía catch all, que se mueve con comodidad en el terreno de la innovación incremental y la consolidación del sector. La suya es una estrategia más institucionalizadora (reformista, a su manera) que rupturista.

2. Antecedentes históricos: la Nueva Cocina Vasca

Hay anécdotas que se repiten hasta la saciedad. Y esa iteración es indiciaria del grado de legitimación (por no decir mistificación) que alcanza una institución social. Según la historia oficial, recogida oportunamente en Wikipedia, es a finales de 1976, en pleno florecimiento de la

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[1] Capel, J.C. (2017). "Azurmendi. El universo verde de Eneko Atxa". El País, 5-5.

[2] Gobierno Vasco. (2020). Plan Estratégico de la Gastronomíaa y la Alimentación (PEGA). Servicio de Publicaciones del Gobierno Vasco.

cultura popular en el País Vasco (los movimientos Ez dok amairu, en el ámbito de la música popular y Gaur, Hemen, Orain, en el de las artes plásticas), cuando surge la llamada Nueva Cocina Vasca en una Madrid convulsa, en pleno cambio de régimen, en el marco de una "Mesa redonda sobre gastronomía" organizada por el Grupo Gourmets[3]. Allí coinciden los cocineros vascos Juan Mari Arzak y Pedro Subijana con sus colegas franceses Raymond Oliver y Paul Bocuse. Bocuse termina invitando a Arzak y Subijana a su restaurante de Lyon para darles a conocer más en profundidad la filosofía que hay detrás de la Nouvelle Cuisine, paradigma emergente en la cocina internacional.

El hito histórico más importante –cada país cocina a fuego lento sus propios mitos- de esta nueva corriente culinaria fue la publicación en 1972, en la joven revista Gault-Millau, del decálogo de la Nouvelle Cuisine. En esta especie de manifiesto, en el que resuena la vocación iconoclasta de mayo del 68, "se huye de lo pretencioso, se vuelve la mirada al mercado, a lo estacional, se respeta al máximo el producto, se reivindica la cocina tradicional en detrimento de los grandes clásicos de la alta cocina parisina, se da vía libre a las aportaciones de otras cocinas (es decir, de otras culturas) y se subraya la importancia de la técnica" (Massanes & Guitián, 2010, p.168).

Pues bien, ese emblemático encuentro producido en Madrid en 1976 es, según afirma Arzak, "la base para empezar a trabajar con seriedad en una nueva cocina vasca" (Corcuera, 2002, p. 80). Haciendo gala de su poder de iniciativa y pragmatismo, una pauta que, como veremos, se mantendrá a lo largo de la historia, en 1977, un año más tarde, y tras organizar múltiples cenas a las que convocaban a cocineros de su generación y críticos gastronómicos, los pioneros de la iniciativa ya están en disposición de organizar en el País Vasco la "II Mesa Redonda sobre Gastronomía", celebrada en la Sala de Cultura de la Caja de Ahorros Provincial de Guipúzcoa, y que en consonancia con los vientos que soplaban en la incipiente España de las autonomías, versará sobre las cocinas regionales. Como consecuencia de un doble proceso de "democratización" y "culturización" (Subijana, 2016), la alta cocina alcanzará en el contexto español, primero en el País Vasco y más tarde en Cataluña, una visibilidad que no tenía.

Cabría preguntarse si la Nueva Cocina Vasca, aparte de nuevo, es un fenómeno innovador, o más bien una sucursal de algo que ocurre en otra parte. Los hechos apuntan a esto segundo. En directa resonancia con lo sucedido en Francia, la Nueva Cocina Vasca tendrá como prioridad "elaborar con propiedad y autenticidad y, sobre todo, con calidad y esmero, las recetas vigentes, pero también mejorarlas, innovando constantemente e incluso marcando algunas tendencias de lo que luego se conocerá como "comida saludable" (Adrià, 2016, p. 17). Para ello resulta imperativo el uso en alta cocina de productos característicos de la culinaria popular, así como de elaboraciones de esta misma tradición.

3. La ampliación del campo de batalla de la gastronomía: la revolución paradigmática tecno-emocional

Curiosamente, pues, desde un punto de vista geopolítico (si se nos permite utilizar un término tan grueso), los dos grandes procesos de transformación de la cocina española han tenido como fuente de inspiración la restauración francesa y, no por casualidad, se han producido en dos territorios que, aparte de ser colindantes con Francia, ocupan una posición periférica respecto de la centralidad de Madrid: País Vasco y Cataluña. Pero, ¿son estos dos procesos de transformación equivalentes en términos de innovación o tienen una dimensión y un alcance diferentes?

Otra de esas anécdotas fundacionales, que se repiten hasta la saciedad en los mentideros gastronómicos es aquella suerte de epifanía que experimentó Ferrán Adrià, factotum de la revolución paradigmática que siguió a la Nouvelle Cuisine, cuando escuchó de boca del cocinero, también francés, Jacques Maximin: "crear es no copiar". Esta sentencia es el big bang de una

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[3] Fundada en 1976, el Grupo Gourmets es la primera empresa editora de España especializada en gastronomía, vinos y viajes. Sus cabeceras son la revista Club de Gourmets y Guía Vinos Gourmets.

nueva y disruptiva forma de concebir la cocina que va a alcanzar la hegemonía en el cambio de siglo: la cocina tecno-emocional (Arenos, 2011)[4]. En adelante, según dicta el mayor prescriptor de la cocina contemporánea de las últimas cuatro décadas, Ferrán Adrià, "crear es imaginar y concretar lo que nunca nadie hizo antes; hacer cosas que no existían. Innovar, por su parte, es hacer cosas que no existían, llevarlas al comedor de un restaurante y que te las compren"[5].

La creatividad se entiende como acto disruptivo y la innovación como un proceso que sigue una lógica incremental. Así, la revolución tecno-emocional de Adrià tiene un componente creativo, de base conceptual, del cual se apropia rebuscando en el diccionario de las vanguardias artísticas y filosóficas de los años 60: la deconstrucción –hackeo sería un término más adaptado al lenguaje actual- por igual de la alta cocina francesa y la tradición culinaria española/mediterránea. Ahora bien, esto se lleva a cabo de manera incremental, pautada, mediante la aplicación de una innovación técnica: la texturización, la descomposición de los alimentos en texturas que los desfiguran y los reconstruyen sobre bases técnicas, organolépticas y estéticas hasta entonces desconocidas.

Para abordar de manera sistemática el cambio paradigmático que sobrevino con la cocina tecno-emocional -más allá de la versión paródica de nociones como esferificación y deconstrucción, las cuales pasan a engrosar el lenguaje popular, la diseminación de determinadas técnicas (cocina al vacío, empleo del nitrógeno líquido) y la conversión de las cocinas domésticas en protolaboratorios[6]- es necesario distinguir dos dimensiones: la sintagmática y la paradigmática. La primera, la sintagmática, se refiere al eje de agregación y recoge todos aquellos ámbitos de actividad científica, cultural, industrial, social, biomédica, nutricional, estética, antropológica, económica, patrimonial, turística, etc. que, a partir de finales de la década de los 80 del pasado siglo[7], se van acercando, primero con curiosidad, y finalmente con un afán extractivo, a la gastronomía.

El eje sintagmático significa, dicho sumariamente, la intensificación del componente reflexivo de la gastronomía: pasamos de una cocina que ya fue pensada "de una vez y para siempre", a otra "para pensar" (Arenós, 2012; Hamilton & Todolí, 2009; Adriá, Soler & Adriá, 2010; Caballero, 2004; Moret, 2007; Andrews, 2011). El libro El sabor del Mediterráneo (Adrià, 1993) es el que despliega de manera metódica esta apuesta por llevar al grado máximo de desarrollo la libertad creadora de la Nouvelle Cuisine. La culminación de toda esta voladura controlada del paradigma anterior, y su verdadero desafío institucional, es la "sonada" desaparición en 2011 de elBulli como restaurante y su conversión en fundación para la promoción y estudio, no ya de la cocina creativa, sino de los "procesos" asociados a la creatividad[8]. Esto propicia un entorno abierto de innovación (Gurrutxaga, 2013) en el que científicos y técnicos de diversa procedencia colaboran de forma más desinhibida que en sus propios ámbitos de especialización, sometidos como están estos a una voraz competencia interna. La cocina, fiel a su propia tradición sociabilizadora, sirve de emulsionante para la fertilización cruzada entre disciplinas científicas y técnicas en torno a una temática que es multidimensional e hipercompleja. El periodista Pau Arenós, quien acuñó el término "tecno-emocional", traza de esta prolija manera el marco institucional en el que se desenvuelve este paradigma:

"[Cocina tecno-emocional] Movimiento culinario mundial de principios del siglo XXI nacido en elBulli. Está formado por cocineros de distinta edad y tradición. El objetivo de los

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[4] También llegó a denominarse cocina científica, cocina de vanguardia, cocina de autor, nueva nouvelle cuisine, cocina de los sentidos, cocina molecular, cocina conceptual, entre otras denominaciones.

[5] https://www.youtube.com/watch?v=Zyr2cLmaAK0

[6] Conceptos y técnicas dados a conocer en programas de televisión con audiencias millonarias como la franquicia MasterChef.

[7] 1988 es el año que marca la irrupción de la ciencia en la gastronomía a través del trabajo del químico-físisco Herve This y del físico Nicholas Kurti en torno a la llamada gastronomía molecular (Cassi, 2011; Cassi & Bocchia, 2005; Yek & Struwe, 2008; Vega & Ubbink, 2008; García Segovia et al., 2014).

[8] No en vano, uno de los primeros trabajos de la Fundación elBulli en este nuevo formato recibió el sintomático título de "Ferran Adrià. Auditando el proceso creativo".

platos es crear emoción en el comensal y para ello se valen de nuevos conceptos, técnicas y tecnologías, siendo los descubridores o simplemente los intérpretes, recurriendo a ideas y sistemas desarrollados por otros. Con la actitud y las preparaciones, los cocineros asumen riesgos. Prestan atención a los cinco sentidos y no solo al gusto y al olfato. Además de crear platos, el objetivo es abrir caminos. No plantean ningún enfrentamiento con la tradición, sino, al contrario, muestran deuda y respeto por ella. Asumen un compromiso social, cooperando con fundaciones, universidades o entidades benéficas. Para recabar conocimiento han iniciado un diálogo con los científicos, pero también con artistas, arquitectos, dramaturgos, novelistas, músicos, bodegueros, artesanos, perfumistas, poetas, periodistas, historiadores, antropólogos, psicólogos, filósofos, diseñadores. Colaboran, en busca de la supervivencia del producto, con los agricultores, los ganaderos y los pescadores" (Arenós, 2011, p. 7).

Esta revolución paradigmática, que opera por incorporación de nuevos elementos a la ecuación de la gastronomía y se expresa a base de enumeraciones como las que se pueden apreciar en la cita anterior, genera controversias y fuerza nuevos posicionamientos también en el ámbito de la gastronomía vasca:

a)   En primer lugar, pervive la perspectiva "economicista", que considera la cocina como un eslabón más de la cadena de valor de la alimentación. Así, la alimentación es una cadena de valor que va desde el sector primario al terciario y transversalmente hacia otros sectores económicos, que, en su sentido más amplio –incluyendo producción de alimentos, industria alimentaria, comercio alimentario, restauración y colectividades, la gastronomía y transporte alimentario–, se computa en términos de aportación al PIB.

b)   Tenemos, en segundo lugar, un posicionamiento que, aunque tiene la vocación de contemplar las dos dimensiones de la innovación en cocina, la del producto o hardware (lo que se cocina/lo que se come) y la del proceso o software (cómo se cocina/cómo se come), tiende a disociarlas. Por un lado, se contemplan los aspectos sociales, derivados de una concepción limitante de la comensalidad como vector de entendimiento social y la consideración de la cocina como un fetiche identitario: somos lo que comemos y/o cocinamos. Por otra parte, está el componente de innovación (somos como comemos y/o cocinamos), que se escora invariablemente al ámbito de la tecnología. Se fijan así dos formas irreconciliables de concebir la cocina, una populista y "naturalista", más proclive a la cocina de producto y a centrarse en el sabor ("que las cosas sepan a lo que son") y otra elitista, tecno-científica y "constructivista", en oposición al cariz esencialista de la anterior, con mayor querencia a la cocina de proceso y al saber (hacer que las cosas sepan a lo que son). Es en esta encrucijada donde se dirigen la mayoría de las controversias generadas por la cocina tecno-emocional, que algunos asocian a la parte "abyecta" de la cocina, por lo que de in-corporación (Fischler, 1995) de ingredientes tóxicos e ideas esotéricas (cuando no simples sandeces) tiene (Santamaria, 2008; De Jorge, 2010).

c)   El tercer posicionamiento es el que considera la gastronomía no ya como un servicio, una parte de la cadena de valor, o un foro de controversias, sino como un sistema experto abierto a una relacionalidad radical. Esta perspectiva apela al carácter constructivo de las controversias y asume como punto de partida teórico-metodológico una antropología asimétrica, que, en el caso de la cocina, toma en consideración tanto los agenciamientos humanos como los no humanos, o, lo que es lo mismo, una sociología no tanto de la sociedad, basada en vínculos estables y duraderos, sino de las asociaciones (Latour, 2005; Hennion, 2004) o articulaciones que son siempre precarias y para cuyo mantenimiento hay que movilizar infinidad de recursos, tanto sociales como técnicos, hasta el punto de que estas dos dimensiones devienen indistinguibles. El hardware de la cocina, lo que se come, y su software, cómo se come, trabajan así conjuntamente. La cocina de producto y la cocina de proceso trascienden la relación dicotómica (y la moral maniquea) que las limitaba, para resonar la una en la otra.

El segundo eje, el paradigmático, opera por sustitución: la apertura de la cocina a otras disciplinas modifica sustancialmente sus marcos cognitivos (qué es) y sus fundamentos institucionales (cómo se ejecuta). En este eje se resignifican los cuatro puntos cardinales de la cocina: chef, comida, restaurante y comensal (Martínez de Albeniz, 2018). ¿Qué es en la actualidad un restaurante? ¿Qué se entiende hoy por comida? ¿Que, por comensal? ¿Qué es hoy día un chef?, serán preguntas aparentemente banales que ejercerán una influencia disruptiva sobre los códigos de la gastronomía. La cocina tecno-emocional supone un desafío en términos metalingüísticos, de código. La cocina tecno-emocional es, pues, una cocina reflexiva y destradicionalizadora (Beck, Giddens & Lash, 1994). Este movimiento tiene como fuerza motriz la resistencia al cierre categorial al que la cocina profesional había estado largo tiempo sometida, toda vez que pone en cuestión el algoritmo que establecía que alta cocina significaba, a todos los efectos, que "un chef cocina comida en un restaurante para un comensal". La hoy día manida y ubicua expresión "experiencia gastronómica" sustituye del algoritmo clásico de la cocina convencional, que pivota en torno al eje "dar de comer".

El eje paradigmático se centra en el nuevo entramado institucional de la gastronomía. La cocina pasa a configurarse como "extitución" (Tirado & Doménech, 2001), una suerte de trama tupida que ha desbordado la caja negra de la cocina y la autorreferencialidad a ella asociada, y opera ya a modo de una "agencia distribuida" a resultas de la cual las figuras/roles del chef y el comensal, así como la comida y el restaurante se rearticulan de manera novedosa. A menudo, es más relevante lo que ocurre en el afuera del restaurante que la dinámica propia de este tipo de establecimientos hosteleros. El desafío al que nos enfrentamos es que, para semejante concepción de la gastronomía, cocinar es un verbo que hay que declinar de una manera expandida: lo mismo se puede cocinar con una sartén, con un ordenador, con un cromatógrafo o una página de Instagram.

- El chef deja de tener la centralidad de antaño y no tiene por qué estar cocinando in situ, en el restaurante, para ejercer su labor; ni siquiera tiene que cocinar para ser considerado chef. La chaquetilla otorga hoy día competencias que no hace mucho tiempo ni siquiera se podían imaginar. Entre otras cosas, el rol de chef pasa de la condición de empresario a marca, con su correspondiente operación de branding.
- El restaurante hoy forma parte de un entramado multi-local, conectándose con centros de investigación, departamentos de I+D+i de la industria alimentaria, agencias de publicidad, grupos de investigación universitarios, agencias gubernamentales, estudios de arte, etc. La investigación ni siquiera es ya una opción en muchos restaurantes: se ha convertido en un componente sistémico.
- La colaboración con los científicos hace que la comida comience a operar en laboratorios y cocinas -espacios que cada vez presentan un mayor isomorfismo[9]- a una escala micro de observación, lo que suscita numerosas controversias (y temores) por la no "reconocibilidad" o la desfiguración de lo que se ingiere.
- Finalmente, el comensal atraviesa un proceso de paulatino empoderamiento, en el marco de la experiencia gastronómica, desde el momento en que como audiencia activa "termina" el plato, convirtiéndose en un nuevo prescriptor, incluso por encima de la crítica gastronómica "autorizada", a través del uso "experto" de las redes sociales.

Raimundo García del Moral (2020) denomina cocina abstracta o gastronomía total a la revolución tecno-emocional. Los dos rasgos esenciales de la gastronomía total, según este autor, son la abstracción culinaria y la revolución que supone en materia de texturas. Parafraseando la triada lacaniana (real/imaginario/simbólico), podríamos decir que, en el caso de la gastronomía total, la ciencia, sobre todo la llamada gastronomía molecular, pone la parte correspondiente a la investigación en materia de texturización; el discurso artístico como driver de innovación, por su

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[9] Estos espacios podrían ser denominados cocinatorios [kitchenatories] (Vega et al., 2013).

parte, contribuye con la dimensión imaginaria de la abstracción[10]. Ciencia (la materia de lo real) y arte (la dimensión imaginaria) son la sístole y la diástole de la gastronomía.

Pongamos un ejemplo ilustrativo de cuál puede ser el alcance del paradigma de gastronomía "total" para poder evaluar su alcance. En el principio… fue la esferificación. La técnica de la esferificación se puede entender como la síntesis perfecta de los dos principales rasgos atribuidos a la gastronomía total: la textura y la abstracción. Esta técnica tiene, ciertamente, un carácter paradigmático. Es un ejemplo casi puro de relacionalidad interdisciplinar entre ciencia (de la texturización) y arte (abstracto)[11]. Esta es la nueva relacionalidad en el marco del paradigma de la gastronomía total: arte y ciencia habilitan un concepto vertebrador, el de experiencia gastronómica (Martínez de Albeniz, 2018), para cuyo desarrollo la gastronomía se despliega como un logro sin precedentes en el ámbito científico/técnico y en el sensorial, emocional y estético[12].

La presencia de este paradigma en la gastronomía vasca es relativamente marginal desde el punto de vista conceptual, habida cuenta de que atenta contra los fundamentos de la Nueva Cocina Vasca, aunque es cierto que se han adoptado algunas de sus técnicas y tecnologías, adaptándolas a un discurso gastronómico más naturalista, con una fuerte carga identitaria. Probablemente, el ejemplo más claro de esta forma de concebir la gastronomía en el País Vasco (casi un electrón libre) es el restaurante Mugaritz, que se define a sí mismo como un no restaurante, o un restaurante trans-, por cuanto que, en una suerte de disforia gastronómica, no se identifica con el rol (el cuerpo) de restaurante que se le asigna socialmente (Mugaritz, 2019).

4. Desplazamientos hacia lo "social": de la gastronomía social a la gastronomía 360

El paradigma de la gastronomía total, basado en la interacción ciencia-arte, se caracteriza por una también "total" ausencia de la dimensión social. Dicho de manera metafórica, hace del plato, literalmente, su "mundo", el territorio en el que la gastronomía despliega su poder creativo e innovador. No opera a la inversa, haciendo -no sólo metafóricamente como se podría sospechar de la expresión- "del mundo un plato a cocinar". La idea "cosmopolítica" (Stengers, 2005) de que el modo en que comemos y cocinamos contribuye en gran manera a construir el mundo que habitamos será, como veremos a continuación, el listón en el que se mide y el marco de sentido desde el cual entender la polisémica y controversial dimensión de lo social en gastronomía. Veremos también cómo la gastronomía vasca se encuentra más cómoda en algunas declinaciones de "lo social" que en otras.

El mismo Raimundo García del Moral (2020), en su repaso de los paradigmas que han pautado la evolución de la gastronomía moderna, trata de suplir esta carencia haciendo referencia

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[10] En el segundo número (Junio de 2012) de la revista International Journal of Gastronomy and Food Science, promovida por el restaurante Mugaritz, el Centro de Investigación Alimentaria AZTI y el Basque Culinary Center podemos encontrar estos dos artículos: "Discourse as driver of innovation in contemporary haute cuisine: The case of elBulli restaurant", en la sección Gastronomy in Perspective, y "Effect of calcium source and exposure-time on basic caviar spherification using sodium alginate" en la sección Science nd Gastronomy.

[11] Las posiciones extremas e irreconciliables entre ciencia y arte serían las que se dan entre la cocina Note by note de Herve This, como ejemplo más depurado de la cocina científica y una cocina que huye del modelo científico y se refugia en la figura romántica del cocinero como artista-genio. Unos pocos cocineros, como Pierre Cagnaire y el propio Ferrán Adrià, han sabido moverse con destreza entre estos dos mundos a menudo irreconciliables.

[12] Es la llamada cocina holística la que lleva a sus últimas consecuencias la fertilización cruzada entre ciencia y arte holística (Mestre et al., 2022; Bronumm & Munk, 2019). El representante más fiel de esta corriente es el restaurante The Alchemist (Copenhague), que aboga por que la experiencia gastronómica disruptiva sea pensada como experiencia artística: "Al igual que los antiguos alquimistas buscaban fusionar la filosofía, las ciencias naturales, la religión y las artes para crear una nueva comprensión del orden mundial, el objetivo de la cocina holística es redefinir y ampliar nuestra comprensión del concepto de comida. La cocina holística tiene, por definición, varias capas. Se nutre de elementos del mundo de la gastronomía, el teatro y el arte, así como de la ciencia, la tecnología y el diseño, para crear una experiencia sensorial integral y dramatúrgicamente impulsada. Sabor, ingredientes de alta calidad, preparación hábil y el proceso de comer, forma la base, pero la experiencia está diseñada para extenderse más allá del plato, filtrándose tanto en el entorno físico inmediato como trascendiendo el tiempo y el espacio" The Alchemist. Disponible en https://alchemist.dk/holistic-cuisine/

a una última etapa de transición, posterior a la gastronomía total, en la que nos encontraríamos en la actualidad, que rompería con el reduccionismo que subyacía al movimiento pendular del binomio ciencia/arte. Esta última etapa se caracterizaría por una "socialización global de la gastronomía"[13]. Pero, ¿hacia dónde se produce esta ampliación hacia lo social? Y, sobre todo, ¿qué se entiende por "socialización"? Tenemos la impresión de que por socialización se entiende aquí la visibilización social de una gastronomía que de estar acantonada en las cajas negras de las cocinas profesionales (y las domésticas) está ahora "hasta en la sopa" (Correa, 2021).

Los principales rasgos de esta tendencia que aspiraría a erigirse, según García del Moral, en el nuevo paradigma son: la emergencia de restaurantes low cost; la internacionalización de la tapa y el pintxo como variantes de la street-food; el rol cada vez más importante de los mass media en el desarrollo y la prescripción de tendencias gastronómicas; la progresiva desaparición de la crítica gastronómica profesional; el ascenso meteórico de la cocina étnica; el crecimiento de la cocina ecológica local (locavorismo); el desarrollo de innumerables fórmulas de neococinas basadas en la dieta y el egocentrismo asociados a las redes sociales (García del Moral, 2020). Estamos ante un paradigma que más parece un cajón de sastre; que bebe de una noción sumamente imprecisa o impresionista de lo social y se despliega como una enumeración un tanto desarticulada de tendencias que atañen a la economía, el (multi)culturalismo gastronómico, la comunicación, la psicología, además de a una consideración en exceso amable o poco cruenta de la cuestión medioambiental.

Sería injusto no reconocer, pese a sus limitaciones, que la ampliación hacia lo social propuesta por García del Moral (2020) va más allá de la trillada lectura antropológica de la gastronomía, asociada a una idea de comensalidad que, a modo de valor universal, entiende esta como vector de vertebración comunitaria, es decir, como "cemento social". En otro orden de cosas, tenemos la visión "humanista" que se impone en el imaginario social cuando la gastronomía es llamada a intervenir en situaciones de crisis o emergencia social[14], asociada, pues, a la filantropía, la caridad o la acción humanitaria.

Desde la perspectiva sociológica, resulta sin duda más interesante e innovador un movimiento que se hace llamar "gastronomía social" (Social Gastronomy Movement SGM), tanto por su dimensión global como por sus objetivos: "usar la comida para transformar el mundo"[15]. La gastronomía social (Navarro-Dols & González Pernía, 2020)[16] constituye el intento más ambicioso hasta la fecha de acercarse a la gastronomía, en tanto que hecho social total (Kasuga, 2010)[17]. Cabría destacar, en este sentido, el fuerte impulso institucionalizador que, en la mejor tradición adaptativa y pragmática de la Nueva Cocina Vasca, lleva desarrollando el Basque Culinary Center en el ámbito de la gastronomía social a través de diversas publicaciones (Correa & Martínez de Albeniz, 2018; BCC, 2020; BCC, 2022), así como del blog Gastronomía 360[18]. Ahora bien, esta visión está sesgada en exceso por la centralidad del chef y no se centra tanto en la potencialidad de la gastronomía como sistema experto. Se afirma que, habida cuenta de la "visión singular" que tienen los chefs y desde la posición estratégica que ocupan, la gastronomía, -

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[13] Cabe citar, en este mismo sentido, el proyecto 50 Glimpses. A Creative Journey through Contemporary Gastronomy, desarrollado durante 2018 en el Basque Culinary Center (Correa & Martínez de Albeniz, 2018), como intento de ampliar la vertiente social de la gastronomía hacia cinco constelaciones: la gastronomía como conversación social; el gastro-activismo; la gastronomía como cadena de valor; la gastronómica como sistema científico-técnico; y la gastronomía como experiencia hedónica.

[14] World Central Kitchen, la iniciativa "comandada" por el cocinero español, residente en Estados Unidos, José Andrés es la versión depurada de esta corriente.

[15] https://www.socialgastronomy.org/, https://www.finedininglovers.com/article/social-gastronomy-can-food-change-society

[16] Cfr. Gastronomy 360º. Four Post-Covid19 Scenarios. https://innovation.bculinary.com/en/gastronomia-360o-cuatro-escenarios-post-covid-19-para-el-sector/

[17] Cabe destacar, en este sentido, el trabajo que lleva realizando el Basque Culinary Center a través de diversas publicaciones (Correa & Martínez de Albeniz, 2018; BCC, 2020; BCC, 2022) y del blog Gastronomía 360. https://gastronomia360.bculinary.com/

[18] https://gastronomia360.bculinary.com/

monitorizada, todo sea dicho, desde el Basque Culinary Center- tiene el potencial de constituir una suerte de subsistema de observación de toda la cadena de valor de la alimentación. A la contra del principio de complejidad y aplicando la dualidad partícula-onda de la física cuántica, esta observación se focaliza en la posición de la partícula (en la centralidad e hipervisibilización de los chefs) y no tanto en el movimiento de la onda (lo que la gastronomía tiene de movimiento social). Hay cierta sublimación de la figura del chef[19] cuando se afirma que "muchos chefs están llevando su pasión por la gastronomía a la sociedad; y, entre todos, están cambiando la forma que tenemos de pensar y vivir"[20].

La gastronomía social termina siendo una enumeración de "buenas causas", compatibles unas con otras porque funcionan mediante una lógica acumulativa: contribuir con los avances de la ciencia o la tecnología; sumarse a la lucha contra el calentamiento global; incidir en la educación alimentaria y la alimentación infantil; sumarse a la defensa de la biodiversidad; impulsar cambios en hábitos de consumo que reviertan el aumento de enfermedades como la diabetes o la obesidad; formar parte de esfuerzos que promuevan el desarrollo social de las comunidades, o ponerse del lado de productores y territorios locales, de culturas originarias o identidades amenazadas en un mundo global, entre otros. Gastronomía 360º es la nueva denominación de este enfoque "social"[21].

Prueba del alcance e influencia de esta gastronomía "que todo lo puede" es el informe, recientemente elaborado por el Basque Culinary Center en colaboración con la Secretaría General Iberoamericana (SEGIB), en el que se analiza la gastronomía como motor de los Objetivos de Desarrollo Sostenible (ODS). De los diecisiete Objetivos de Desarrollo Sostenible, once están relacionados estrechamente con la alimentación, y los otros seis conectados de alguna manera con los sistemas alimentarios. Pues bien, el informe trata de argumentar que la gastronomía puede contribuir positivamente en todos ellos. Se observa, pues, que 360º es la estrategia discursiva que la gastronomía llamada social moviliza para "posicionarse" en un lugar estratégico, a la manera de un hub por el cual tuviera que pasar todo proceso que aspire a hacer del mundo un lugar más sostenible. Estamos, pues, ante una gastronomía "atrapalotodo" [catch all][22].

Así las cosas, estábamos cómodamente instalados, con una gastronomía potente, expansiva, que se comía literalmente el mundo, cuando sobrevino la pandemia. Y la sociedad, que en gran medida había provocado con sus excesos el fenómeno, se empecinó en dar respuestas newtonianas en un entorno einsteiniano. Así, en vez de convertirla en vector de transformación social, hizo de la gastronomía un refugio confortable construido a base de paredes de levadura, azúcar, harina, papel higiénico y cerveza. Hizo de la comida algo aún más digerible: comfort-food (Spence, 2017), comida confortable, comida refugio. Quiso resolver la crisis pandémica a golpe de "humanitarismos", lo que, si bien trajo prodigios logísticos, no hizo más que prolongar la agonía. Produjo protocolos de seguridad e higiene para que bares y restaurantes pudieran seguir siendo los mismos de siempre.

La dimensión social, entendida como emergencia de la "sociedad" pasó a primer plano. La gastronomía no estaba para sofisticaciones científicas (los laboratorios estaban ocupados en otros menesteres) o florituras artísticas (vimos cocineros triestrellados haciendo cocina de la abuela). Mientras tanto, la dimensión social entendida en su vertiente "cosmopolítica" brillaba por su

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[19] Un claro ejemplo de esta óptica es el Basque Culinary World Prize (BCWP). El BCWP es un premio internacional creado para distinguir a chefs con iniciativas transformadoras en ámbitos como el de la innovación, la salud, la nutrición, la educación, medio ambiente, desarrollo social o, en general, a través de acciones que impactan positivamente en la sociedad.

[20] Aizega, J.M. (2017). Gastronomía social; un movimiento en plena expansión. El País, 10-5.

[21] No nos referimos a la declinación de la gastronomía 360 como la que lleva la experiencia gastronómica a sus últimas consecuencias. Cfr. Roncero, P., & González, E. (2020). Sublimotion. Planeta Gastro. Este paradigmático libro, que se vende junto con unas gafas 3D, tiene como objetivo, rizando el rizo, convertir en una experiencia sensorial la lectura de un libro sobre una sofisticada y costosa experiencia gastronómica, llamada "sublimotion", que tiene lugar todos los veranos en la isla de Ibiza.

[22] La expresión catch all party o "partido atrapalotodo" procede de la ciencia política y se refiere a aquellos partidos políticos que modulan su programa electoral para atraer o "atrapar" el voto de votantes de diferentes ideologías.

ausencia. Los hogares intentaban salvaguardar los suministros (comida, agua, electricidad, plataformas de contenidos culturales). Mientras tanto, en el exterior reinaba el caos de una "naturaleza" que a nivel macro "invadía" las ciudades y a nivel micro los cuerpos. A la contra de lo que demandaba una situación compleja como la de la pandemia, se impuso la importancia de lo urgente a la urgencia de lo importante.

5. ¿Un (verdadero) giro de 360 grados? Hacia una aproximación gastrológica

La complejidad de las cosas del comer radica en que estamos observando un mismo fenómeno desde escalas distintas, que son todo menos complementarias. Comemos, cocinamos a escalas distintas (a escala microscópica, a escala humana, a escala sistémica, a escala algorítmica, a escala geológica, a escala social, a escala sensorial…). El COVID19 ha puesto delante de nuestras narices el problema de las escalas. Ha puesto patas arriba ese criterio tan humano, tan social, que partía de una separación radical entre un mundo en el que habita lo pequeño y otro en el que habita lo grande. Ha revelado el mayúsculo error de escindir dos realidades interrelacionadas, por un lado, las consecuencias que a nivel macro (finanzas, emergencia climática…) desencadena la propagación, en forma de aerosoles, de un virus de tamaño infinitesimal, y, por otro, el efecto que procesos sistémicos como la desforestación tienen en virus infecciosos como las zoonosis. Como ha señalado Andreas Malm (2020), el COVID habita simultáneamente en dos escalas, "en el murciélago y en el capitalismo".

En suma, si algo ha puesto en evidencia la pandemia es la precariedad de la idea de "sociedad", una noción que era la piedra roseta de las ciencias sociales. Los Estudios de Ciencia, Tecnología y Sociedad (ECTS), especialmente la conocida como Teoría del Actor Red (Latour, 1995; Callon, 1995; Law & Hassard, 1999) advertían de que a estas alturas no tiene sentido hacer ciencia sobre un objeto, la sociedad, que atraviesa por un profundo cuestionamiento. La sociología tiene que ser una ciencia de las asociaciones, de los procesos a través de los cuales se ensamblan, formando pequeñas "sociedades", los humanos y los no humanos. La pandemia no es más que una gran validación 3D de este principio.

Si la gastronomía será social, será "gastrología" o no será. Nomos es regla, poder, autoridad. La gastronomía se desenvuelve con cierta comodidad en sociedades normativas, donde unos pocos prescriben y unos muchos obedecen. Logos es conocimiento, ciencia. En las sociedades reflexivas toda definición constituye en sí misma una controversia. Esta segunda es la dimensión que prevalece en las sociedades llamadas "reflexivas" (Beck, Giddens & Lash, 1994). La gastronomía es a las sociedades que obedecen lo que la gastrología, a las sociedades que piensan.

La gastrología está destinada a cartografiar la complejidad de la gastronomía. No atender a cómo deberían ser las cosas del comer, sino a cómo son efectivamente, a cómo se articulan públicamente. Y si algo evidencia la gastrología es que las cosas del comer no se dirimen en una superficie plana que cabe repartir de manera armónica entre disciplinas, sean estas científicas o no. Como bien sugieren Leight Star y Griesemer (1989) con la noción de objeto-frontera, la gastrología define la gastronomía como un objeto en la frontera, lo que es decir en permanente cuestionamiento. Un objeto que es a la vez plástico y robusto. Plástico porque hace posible que confluyan en él las miradas de distintas disciplinas científicas y sus correspondientes escalas de observación, pero al mismo tiempo robusto porque mantiene una identidad más allá de esas disciplinas y escalas, impidiendo que cualquiera de ellas se apropie de su objeto, lo que desactivaría su prometedora complejidad.

Pongamos un ejemplo reciente para ilustrar la diferencia entre las perspectivas gastronómica y gastrológica. Los ganadores del Basque Culinary World Prize de las ediciones de 2019 (previa a la pandemia) y la de 2020 (en plena pandemia) marcan una diferencia en términos paradigmáticos. El premio de 2019 recayó sobre Anthony Myint, responsable de la iniciativa Zerofoodprint, que reconoce a los restaurantes sus buenas prácticas en materia de disminución de la huella de carbono. Un año después, en plena pandemia, el galardonado fue el cocinero José Andrés (2020), principal promotor de World Central Kitchen, una ONG que desarrolla

imaginativas soluciones logísticas para paliar la hambruna producida en situaciones de emergencia social. ¿Qué concepción de lo social (y de gastronomía social) estaríamos manejando si afirmáramos que el primer reconocimiento no es social, porque se mide en emisiones de CO2, y el segundo sí lo es porque lo hace en miles de raciones de comida repartidas entre una población necesitada de ellas? ¿No será que mientras reconocemos como social aquello que suena a "humanitario", no somos capaces de hacer lo propio con narrativas más complejas, las que se tejen en torno a, pongamos por caso, la "emergencia climática"?[23]

La Teoría del Actor Red, la perspectiva que sirve de fundamento teórico a nuestra hipótesis gastrológica, sostendría que las dos iniciativas que recibieron el premio son sociales, pero lo son de distinta manera. Defendería que, desde una antropología simétrica, que otorga la misma capacidad de agencia, de transformar el mundo, a los no humanos (el CO2) y a los humanos (y sus acciones "humanitarias"), lo relevante es explicar cómo, a partir de qué asociaciones o ensamblajes, es capaz cada una de las iniciativas de construir la gastronomía como un vínculo con vocación de perdurar. Pues bien, ante eventos tan esclarecedores como la pandemia, junto con una visión limitada de lo social como enumeración de "buenas prácticas", pierde también vigencia ese sesgo antropocéntrico que impide que la gastronomía esté a la altura de la complejidad de los procesos que ella misma activa.

Nuevamente, la pandemia nos otorga una ventaja epistemológica frente a estos dilemas porque pone en evidencia lo limitado de refugiarse en marcos tranquilizadoramente humanos y por lo tanto biográficos (cuando no heroicos), en detrimento de marcos sistémicos. Renunciar al enfoque sistémico y hacer prevalecer uno más narrativo supone negar, entre otras cosas, que los virus son agentes sociales de pleno derecho, que forman parte de nuestra existencia biológica y sociocultural. "Las narrativas a las que estamos acostumbrados (con un comienzo, un final y un conjunto de sucesos, personajes y actos heroicos de por medio) no sirven para figurar lo que ocurre con las pandemias, con un enemigo que es invisible, carece de personalidad y no tiene propósitos"[24].

¿No implica un verdadero giro de 360 grados la necesidad de desplazarnos a esta otra óptica? Ello depende, en gran medida, de en qué mundo "aterricemos" la gastronomía. Como dice el sociólogo Bruno Latour "es evidente que descubrir este nuevo mundo exige otro equipamiento psicológico, una libido sciendi distinta a la de la aventura hacia lo Global. Apuntar a una emancipación en gravedad cero no requiere las mismas virtudes de apuntar a una emancipación de soterramiento" (Latour, 2019, p. 118).

6. Conclusión: la gastrología como ciencia de las zonas críticas

Concluimos este artículo apostando por un deslizamiento paradigmático de consecuencias políticas, pero también epistemológicas. Esta apuesta se centra en discernir cómo, en gastronomía, como en muchos otros ámbitos, las seguridades domésticas pueden generar incertidumbres sistémicas. La controversia gastronomía vs. gastrología de la que hemos hablado se puede enunciar como la pugna entre quienes, siguiendo las pautas de la primera, hacen del plato su mundo, y quienes, optando por la segunda, consideran que el mundo también es un plato a "cocinar".

La imagen amable y soleada de ese mundo social que habitamos juntos, en la que sigue cómodamente instalada la gastronomía, continúa, pese a todo, siendo muy convincente. Entre otras cosas porque no hay una representación pública equivalente de las "zonas críticas" en las que se dirimen las cosas del comer (y del cocinar). La gastrología es una ciencia de las zonas

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[23] Hasta que se entiende como problema de salud pública y adopta la forma de enfermedad, como ha ocurrido con el SARS-CoV-2, la sostenibilidad carece de una narrativa para aquellos que no se la plantean como una cuestión de compromiso activista, que son una minoría.

[24] Bergua, J.A. (2020). Las cegueras de la pandemia. El Público, Blog "Juegos sin reglas". Disponible en https://blogs.publico.es/juegos-sin-reglas/2020/12/16/las-cegueras-de-la-pandemia/

críticas de la que pueden echar mano quienes quieran aventurarse por estos territorios menos confortables[25]. Para ello es necesario tirar de zoom y disponernos a realizar un aterrizaje que seguramente será forzoso (Solnick, 2020). Lo primero es poner en cuarentena el "espectro (de lo) social" en el que se ha movido hasta la fecha la gastronomía, ampliándolo a otras escalas. Esta apertura activa escalas micro y macro que resultaban inobservables para la visión antropocéntrica. No hay que olvidar que observar significa etimológicamente no sólo mirar, sino también cuidar. De manera tentativa, haciendo uso de este virtual zoom, podríamos diferenciar al menos cuatro escalas gastrológicas:

- La escala nano de la llamada "materia oscura" de la alimentación (Barabási, Menicheti & Loscalzo, 2020). El microbioma emerge aquí, junto con la dimensión desconocida de la composición atómica de los alimentos, como una prometedora zona crítica.
- La escala micro de la gastronomía en la que se desempeñan la investigación científica más al uso, gran parte de las innovaciones aplicadas en el sector de la restauración (gastronomía molecular) y en la industria alimentaria. Pero también la composición del suelo en el que cultivamos nuestros alimentos. Así, nuevos ámbitos de estudio como los estudios del suelo (soil studies) constituyen también una zona crítica. El suelo es también el plato sobre el que cocinamos (Pollan, 2006).
- La escala meso en la que se desenvuelve el imaginario social "establecido" o socialmente instituido de la gastronomía, su definición cotidiana o de "sentido común". Este es el ámbito que hemos definido como la zona de confort epistemológico de la gastronomía.
- Por último, la escala macro[26], que atiende a las consecuencias sistémicas que se derivan del modo en que comemos y cocinamos. Aquí alcanza una especial relevancia el llamado Nuevo Régimen Climático (Latour, 2019).

No se trata, sin embargo, de hacer una enumeración de las zonas críticas como si fueran nuevos objetos o escalas, sino de observar cómo se asocian entre ellos, cómo se entretejen en una suerte de red que va de lo más grande a lo más pequeño[27].

En el territorio epistemológicamente tranquilo de la cultura gastronómica, que se transmite de generación en generación, ya hemos asumido mayoritariamente, especialmente en un territorio con la querencia identitaria del País Vasco, el principio de que somos lo que comemos. Se trata de una idea desafiante para un sentido común que se resiste a ver la complejidad del mundo. La relativa popularización de las innovaciones surgidas en la alta gastronomía, muchas de ellas de origen científico, ha propiciado también la socialización de un segundo principio, sobre todo entre el público gourmet y esa versión puesta al día que son los foodies, que han hecho de él el eje de su existencia: somos como y con quien comemos.

En la actualidad, nos encontramos ante una encrucijada vital que exige un nuevo paradigma que desborde las fronteras del plato. La pandemia ha hecho palmaria una realidad que

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[25] "El término 'zona crítica' es utilizado por geoquímicos, biólogos y ecólogos para designar el entorno superficial y cercano a la superficie de la tierra. Es una capa en constante evolución, de unos pocos kilómetros de espesor, donde interactúan los organismos vivos, pero también el suelo, la roca, el agua y el aire, y es donde las formas de vida han creado las condiciones favorables, hasta el momento, para la continuidad de su existencia. 'Zona crítica' también subraya la fragilidad de esta delgada capa, y las múltiples controversias desencadenadas por las nuevas actitudes políticas necesarias para hacer frente al Nuevo Régimen Climático" (Latour & Weibel, 2020).

[26] Uno de los autores de este artículo protagonizó una anécdota muy significativa. Se pusieron en contacto con él desde la televisión pública (RTVE) para colaborar en un programa "innovador" sobre gastronomía que pretendía ir más allá de los estándares habituales, introduciendo, decían, una mirada sociológica. El programa, llamado Como Sapiens, terminó siendo un desfile de celebrities, que hacían las veces de reporteros gastronómicos. Esa misma productora tiene un programa en horario de máxima audiencia en la que la información meteorológica tiene un gran protagonismo. Pues bien, hacer amable la información sobre gastronomía y meteorología es desactivar dos de las principales zonas críticas en las que se dirime nuestro futuro: la alimentación y el llamado nuevo régimen climático.

[27] La hipótesis Gaia puede resultarnos aquí de ayuda: "Lo pequeño, la bacteria, contiene lo grande, la atmósfera, mientras que lo grande también reside dentro de lo pequeño. Su descubrimiento hizo imposible retener los modelos de muñecas rusas que antes nos permitían subir y bajar en la escala (…) Lo que es una parte y lo que es un todo se pone en duda en todas partes: células, sociedades, así como climas. Esta nueva métrica transforma lo que significa tener una identidad, pertenecer a un lugar, compartir competencias con otros seres" (Latour & Weibel, 2020, p. 12).

anteriormente sólo conocían los científicos que observaban las zonas críticas. Si queremos pasar de la tranquilizadora communitas de la gastronomía a la más desasosegante immunitas de la gastrología, hemos de aventurarnos a que nuestro sentido común se abra con naturalidad a las escalas más grandes y a las más pequeñas. Más allá de las paredes de nuestro hogar, somos lo que comemos (Pollan, 2006). Lo que comemos/cocinamos es un factor cosmopolítico: hace el mundo. Más acá de las paredes de nuestro intestino, somos lo que nuestras bacterias hacen con lo que comemos. Lo que comemos/cocinamos es un factor biopolítico: nos hace a nosotros mismos. Por tanto, asociar estos dos principios a los anteriores, más instalados en el sentido común de la gastronomía, es saber/poder ver lo grande en lo pequeño, y lo pequeño en lo grande.

Referencias

Adrià, F. (1993). El sabor del mediterráneo. Empuries.

Adriá, F., Soler, J., & Adrià, A. (2010). Cómo funciona elBulli. Las ideas, los métodos y la creatividad de Ferran Adrià. Phaidon.

Andrews, C. (2011). Reinventar la cocina. Ferrán Adrià: un viaje incesante por la gastronomía. Phaidon.

Arenós, P. (2011). La cocina de los valientes. Ediciones B.

Barabasí, A., Menichetti, G., & Loscalzo, J. (2020). The unmapped chemical complexity of our diet. Nature Food, 1, 33-37. https://doi.org/10.1038/s43016-019-0005-1

BCC. (2016). Basque. Territorio creativo. Basque Culinary Center & Departamento de Desarrollo Económico e Infraestrcuturas. Gobierno Vasco.

— (2020). Gastronomía 360º. Cuatro escenarios post COVID-19 para el sector. Basque Culinary Center.
— (2022). La contribución de la gastronomía a la consecución de los Objetivos de Desarrollo Sostenibles. Basque Culinary Center.

Beck Bronumm, L., & Munk, R. (2019). Holistic Cuisine. A focus beyond the plate. International Journal of Gastronmy and Food Science, 15, 32-35. https://doi.org/10.1016/j.ijgfs.2018.11.009

Beck, U., Giddens. A., & Lash, S. (1994). Reflexive Modernization. Politics, Tradition and Aesthetics in Modern Social Order. Polity Press.

Caballero, O. (2004). Texto y pretexto a texturas. El bulli, Soler y Adrià en su contexto. Editions Agnes Viento.

Callon, M. (1984). Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay. The Sociological Review, 32(S1), 196-233. https://doi.org/10.1111/j.1467-954X.1984.tb0011

Cassi, D. (2011). Science and cooking: the era of molecular cuisine. EMBO Reports, 12(3), 191-196. https://doi.org/10.1038/embor.2011.18

Cassi, D., & Bocchia, E. (2005). La ciencia en los fogones. Historia, ideas, técnicas y recetas de la cocina molecular italiana. TREA.

Corcuera, M. (2002). 25 años de la Nueva Cocina Vasca. Aizkorri.

Correa, S., & Martínez de Albeniz, I. (2018). 50 miradas. Un recorrido por el movimiento de la gastronomía contemporánea. Basque Culinary Center.

Correa, S. (2021). Gastronomía en movimiento. En S. Correa & R. Nagore (Eds.), Gastronomía 360. Diálogos en torno a la gastronomía de hoy y del mañana (pp. 116-120). Basque Culinary Center.

Correa, S. & Nagore, R. (2021). Gastronomía 360. Diálogos en torno a la gastronomía de hoy y del mañana. Basque Culinary Center.

De Jorge, D. (2010). Con la cocina no se juega. Debate.

García del Moral, R. (2020). Gastronomic Paradigms in Contemporary Western Cuisine: From French Haute Cuisine to Mass Media Gastronomy. Frontiers in Nutrition, 6, 192. https://doi.org/10.3389/fnut.2019.00192

García-Segovia, P., Garrido, M. D., Vercet, A., Arboleya, J. C., Fiszman, S., Martínez-Monzo, J., ... & Ruiz, J. (2014). Molecular Gastronomy in Spain. Journal of Culinary Science & Technology, 12(4), 279-293. https://doi.org/10.1080/15428052.2014.914813

Gobierno Vasco. (2020). Plan Estratégico de la Gastronomíaa y la Alimentación (PEGA). Gobierno Vasco.

Gurrutxaga, A. (2013). Societies of Social Innovation: Voices and Arguments. Succex Academic Press.

Fischler, C. (1995). El (h)omnívoro. El gusto, la cocina y el cuerpo. Anagrama.

Hennion, A. (2004). Pragmatics of taste. en: N. Jacobs and N. Hanrahan, The Blackwell Companion to the Sociology of Culture. Blackwell.

Kasuga, N. (2010). Total Social Fact: Structuring, Partially Connecting, and Reassembling. Revue du MAUSS 2010/2 (36), 101-110. https://www.cairn.info/revue-du-mauss-2010-2-page-101.htm

Kuhn, T. (2016). La estructura de las revoluciones científicas. Fondo de Cultura Económica.

Latour, B. (1995). Dadme un laboratorio y moveré el mundo. En J. M. Iranzo, R. Blanco, T. González, C. Torres & A. Cotillo (Eds.), Sociología de la ciencia y la tecnología (pp. 237-258). CSIC.

> — (1999). Pandora`s Hope: Essays on the Reality of Science Studies. Harvard University Press.
> — (2005). Reassembling the Social. An Introduction to Actor-Network Theory. Clarendon.
> — (2019). Dónde aterrizar. Cómo orientarse en política. Taurus.

Latour, B., & Weibel, P. (2020). Critical Zones. The Science and Politics of Landing on Earth. MIT Press.

Law, J., & Hassard, J. (1999). Actor Network Theory and After. Blackwell.

Leigh Star, S., & Griesemer, J. R. (1989). Institutional Ecology, `Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology. Social Studies of Science, 19(3). 1907-1939. https://doi.org/10.1177/03063128901900300

Luis Aduriz, A. (2019). Mugaritz. Puntos de fuga. Planeta Gastro.

Malm, A. (2020). Corona, Climate, Chronic Emergency: War Communism in the Twenty-First Centur. Verso.

Martínez de Albeniz, I. (2018). Foundations for an analysis of the gastronomic experience. From product to process. International Journal of Gastronomy and Food Science, 13, 108-116. https://doi.org/10.1016/j.ijgfs.2018.01.001

Martínez de Albeniz, I. (2021). In praise of complexity: From gastronomy to gastrology. International Journal of Gastronomy and Food Science, 25, 100360. https://doi.org/10.1016/j.ijgfs.2021.100360

Massanes, T., & Guitián, J. (2010). Libertad en los fogones. La cocina española y sus libros, de la transición a nuestros días. Biblioteca Nacional.

Mestre, R., de La Rosa, J., de Albéniz, I. M., del Castillo, C. D., Baroni, M., & Arboleya, J. C. (2022). Disciplinary interactions in gastronomy R&D teams. International Journal of Gastronomy and Food Science. https://doi.org/10.1016/j.ijgfs.2022.100609

Moret, X. (2007). elBulli desde dentro. Biografía de un restaurante. RBA.

Navarro-Dols, J., & González Pernía, J.L. (2020). Gastronomy as a Real Agent of Social Change. International Journal of Gastronomy and Food Science, 21, 100240. https://doi.org/10.1016/j.ijgfs.2020.100240

Pollan, M. (2006). The Omnivore's Dilemma: A Natural History of Four Meals. Penguin.

Roncero, P., & Gonzalez, E. (2020). Sublimotion. Planeta Gastro.

Santamaría, S. (2008). La cocina al desnudo. Una visión renovadora del mundo de la gastronomía. Temas de Hoy.

Spence, C. (2017). Comfort Food. International Journal of Gastronomy and Food Science, 9, 105-109.

Solnick, S. (2020). Bruno Latour and Peter Weibel. Critical Zones. Art-Agenda, 21-12.

Stengers, I. (2005). The cosmopolitical proposal. En B. Latour & Weibel, P. (Eds.), Making Things Public (pp. 994-1003). MIT Press.

Tirado, F.J., & Domenech, M. (2001). Extituciones. Del poder y sus anatomías. Política y Sociedad, 36, 191-204.

Vega, C., Ubbink, J., & Van der Linden, E. (Eds.). (2013). The kitchen as laboratory: Reflections on the science of food and cooking. Columbia University Press.

Yek, G.S., & Struwe, K. (2008). Deconstructing Molecular Gastronomy. Food Technology, 62(6), 34-43.

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