

Research on how sustainability is implemented through participation in the housing cooperative La Borda

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Abstract

The utilization of housing cooperatives, which is a form of affordable housing, has been an effective solution to a portion of Spain's housing crisis both before and after the Global Financial Crisis. La Borda, an innovative participatory design housing cooperative in Barcelona, was constructed in 2018 by architect cooperative LaCol and residents of the Sants-Montjuïc neighborhood. This historical thesis delves into the history of housing cooperatives in Spain, the Historical evolution of the participation theory in the residence, and the contextual and procedural aspects of the La Borda project. Through archival research, journalistic research, and literature review, the analysis of the impact of participation on the sustainability of the La Borda project emphasizes the importance of critical participation in housing cooperatives

Keywords: housing cooperative, participation, sustainability, Spain, La Borda

Introduction

Housing markets have been susceptible to speculation and bubbles in recent neoliberal and financial global capitalism. In many North-Atlantic countries, this was one of the factors that cause the 2008 Global Financial Crisis (GFC).¹ Because of the GFC, Europe

¹ Manuel Ahedo, Joris Hoekstra, and Aitziber Etxezarreta, "Socially Oriented Cooperative Housing as Alternative to Housing Speculation. Public Policies and Societal Dynamics in Denmark, the Netherlands and Spain," *Review of Social Economy*, May 2, 2021, 1–22, <https://doi.org/10.1080/00346764.2021.1917646>.

now faces formidable obstacles in the area of providing affordable housing.² Nevertheless, this situation has helped open a chance for growth in the housing market for alternative housing schemes apart from traditional forms of home ownership and renting.³ Against this backdrop, alternative forms of housing delivery and administration, such as Collaborative Housing (CH), have developed in recent years.⁴ In particular, new varieties of residents' cooperatives are included under this umbrella term, which includes an extensive variety of collective self-organized projects. CH is defined as "an arrangement in which participants co-found their housing in whole or in part in close cooperation with the effectiveness of the interventions".⁵

Cooperatives have a long history in Spain. In 1864, the writer Fernando Garrido Tortosa became the first person in Spain to start writing about cooperation and cooperatives.⁶ Housing cooperatives were formed in the 1920s as a result of the *Leyes de Casas Baratas y Económicas* (Laws for Affordable and Economic Housing). The first organizations for residential housing cooperatives emerged in regions such as Valencia and Madrid in the late 1950s and early 1960s.⁷ This cooperative market declined in the late twentieth and early 21st centuries due to a lack of territory, steadily increasing costs of production, and the GFC.⁷ The housing situation in Spain has deteriorated significantly since the GFC, as evidenced by the declining trend in the income of many citizens, the indigency of numerous homeowners who are unable to make their mortgage payments, and the demand for affordable housing. As a result, citizens from the bottom up have launched social movements, for instance, the *Plataforma de los*

² Sara Brysch, "DESIGNING AND BUILDING HOUSING TOGETHER: THE SPANISH CASE OF LA BORDA," 2018.

³ Eduard Cabré and Arnau Andrés, "La Borda: A Case Study on the Implementation of Cooperative Housing in Catalonia," *International Journal of Housing Policy* 18, no. 3 (July 3, 2018): 412–32, <https://doi.org/10.1080/19491247.2017.1331591>.

⁴ Brysch, "LA BORDA".

⁵ Richard Lang, Claire Carriou, and Darinka Czischke, "Collaborative Housing Research (1990–2017): A Systematic Review and Thematic Analysis of the Field," *Housing, Theory and Society* 37, no. 1 (January 1, 2020): 10–39, <https://doi.org/10.1080/14036096.2018.1536077>.

⁶ Cooperative Housing. "Spain Archives - Cooperative Housing," n.d. <https://www.housinginternational.coop/co-ops/spain/>.

⁷ Ahedo, Hoekstra and Etxezarreta, "Socially Oriented Cooperative Housing".

Afectados por la Hipoteca (PAH) in 2009⁸ and the Recuperem Can Batlló in 2011⁹, to attempt to deal with these terrible situations, which promoted the development of participation in housing.

Several more examples of collaborative housing are based on collective design processes, in which the participants perceive collaboration to establish the housing project.¹⁰ For housing participation research, the top of the ‘Ladder of Participation’ was created in 1969 by Sherry Arnstein, a US planner¹¹. ‘Dweller Control’, developed by John Turner in the 1970s, is one perspective on the topic of housing participation¹². Colin Ward even argued in his 1985 book *When We Build Again* that the ability to participate is a necessary part of a proper democratic way of life¹³.

There has been a great deal of research on the impact of housing participation since 2000. Participation, according to Jon Broome, should be at the heart of housing policy because it promotes societal sustainability including 3 aspects: natural capital, man-made capital, and social capital.¹⁴ Richard Lang discussed the possibility of housing cooperatives for enabling residents and thus making a contribution to the city's social cohesion.¹⁴ Christin Wemheuer believed that an experienced, enjoyable communication method leads to a higher level of experienced cooperation in the cooperative. This boosts social cohesion and identification with the organization and residential environment. Furthermore, she posited that housing cooperatives have a great ability to respond to climate change issues due to their democratic values.¹⁵

⁸ Cesare Di Felicianantonio, “Social Movements and Alternative Housing Models: Practicing the ‘Politics of Possibilities’ in Spain,” *Housing, Theory and Society* 34, no. 1 (January 2, 2017): 38–56, <https://doi.org/10.1080/14036096.2016.1220421>.

⁹ Cabré and Andrés, “La Borda”, 412–32

¹⁰ Brysch, “LA BORDA”.

¹¹ Sherry R. Arnstein, “A Ladder Of Citizen Participation,” *Journal of the American Institute of Planners* 35, no. 4 (July 1969): 216–24, <https://doi.org/10.1080/01944366908977225>.

¹² Jon Broome. “Mass Housing Cannot Be Sustained.” Digit book. In *Architecture and Participation*, 1st ed., 65–76. London: Taylor & Francis, 2005.

¹³ Broome. “Mass Housing”, 65–76.

¹⁴ Richard Lang and Andreas Novy, “Cooperative Housing and Social Cohesion: The Role of Linking Social Capital,” *European Planning Studies* 22, no. 8 (August 3, 2014): 1744–64, <https://doi.org/10.1080/09654313.2013.800025>.

¹⁵ Christin Wemheuer and Gabriele Wendorf. “Research Report: Increased Efficiency and Climate

Although participation is widely studied and advocated for, there exist scholars who express skepticism towards it. For example, Uma Kothari's 2001 book "Participation: the new tyranny"¹⁶ argues that the participation process can have adverse effects on participants, potentially causing harm. Similarly, Markus Miessen's book "The Nightmare of Participation"¹⁷ contends that certain individuals may utilize the participation process as an opportunity to carry out unpredictable acts of violence.

In 2018, Eduard Cabré explored the housing cooperative La Borda's housing model¹⁸, while Sara Brysch studied the specific participation process and the challenges achieved by the project.¹⁹ However, I propose that there is a lack of research about the impact of participation on sustainability in the project La Borda, as well as housing cooperatives in Spain. Some Central and Southern nations view the advent of CH models as a new occurrence in housing planning, but it may be termed a "new wave" in the Scandinavian countries.¹⁹

To deep research and critical evaluation of how the sustainable characteristics are attained by resident participation in the project La Borda, this paper is structured as follows: the first chapter describes the emergence of collaborative housing in Europe and the history of its development in Spain, which also includes the Spanish social movements that drove the development. The second chapter describes the theoretical development of participation in housing and the practical application of participation in Spanish housing. In this chapter, the focus will be on the three aspects of the theory of sustainability mentioned by Jon Broome.²⁰ Finally, the third chapter is an analysis of

Protection in Housing Co-Operatives through Residents Participation ." *International Journal of Co-Operative Management* 6, no. 2 (September 2013): 91–96.

<https://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/IASS/housing/international-journal-cooperative-management.pdf>.

¹⁶ Bill Cooke and Uma Kothari, "The Case for Participation as Tyranny", *Chapter one in Participation: The New Tyranny?*, 1-15, (London; New York: Zed Books, 2001), <http://archive.org/details/participationnew0000unse>.

¹⁷ Markus Miessen, *The Nightmare of Participation*. Germany: Sternberg Press, 2011.

¹⁸ Cabré and Andrés, "La Borda", 412-32

¹⁹ Brysch, "LA BORDA".

²⁰ Broome, "Mass Housing", 65–76.

the project La Borda. In this chapter, there is not only the background and the process of participation in this project but also a discussion about how participation contributed to the realization of the three dimensions of sustainability in this project. It is hoped to be useful to residents, La Borda, and the growth of the housing society in Barcelona even in Spain.

The emergence of collaborative housing in European countries

In the 19th century, Working-class lifestyles and living circumstances deteriorated as a result of the Industrial Revolution's rapid industrialization and urbanization throughout Europe.²¹ Machines replaced people in the workforce during the industrial age, forcing firms to lay off workers. Numerous people were compelled to move to the cities in pursuit of new employment and housing, leaving behind their homes and previous careers. Even though living was crowded in the big cities, people still had to live and work hard. The historian T.S. Ashton noted that at the time, one would often spend the majority of their salary on necessities like rent and food.²² For some people, it was challenging enough to just pay the rent. Housing cooperatives started to take up in Europe as a way to make housing accessible to the urban working class.

The German social reformer Victor Aimé Huber (1800-1869) and the Welsh philanthropist and socialist utopian Robert Owen (1771-1858) played significant roles in encouraging European housing cooperatives in the middle of the 19th century.²³ Robert Owen was motivated to build "villages of cooperation" where people could lift

²¹ Daniela Sanjinés and Jennifer Duyne Barenstein, "The Role of Cooperatives in the Provision of Affordable Housing: an introductory overview | Espazium," February 19, 2018, <https://www.espazium.ch/it/attualita/role-cooperatives-provision-affordable-housing-introductory-overview>.

²² The Standard of Living in Europe During the Industrial Revolution – Foundations of Western Culture: "The Standard of Living in Europe During the Industrial Revolution – Foundations of Western Culture:" n.d. <https://foundations.uwgb.org/standard-of-living/>.

²³ Sanjinés and Barenstein, "an introductory overview".

themselves out of poverty by producing their food, and clothing, and eventually becoming self-governing. This notion came to him after opening his first cooperative store in Scotland.²⁴ Viktor Aimé Huber began the construction of numerous homes in Berlin at that time.²⁵ The Rochdale Equitable Pioneers Society, commonly referred to as the Rochdale Pioneers was founded in 1844 by 28 artisans employed at the Rochdale Cotton Factory.²⁶ 84 homes in Rochdale made up the first housing cooperative in Britain in 1861.²⁷

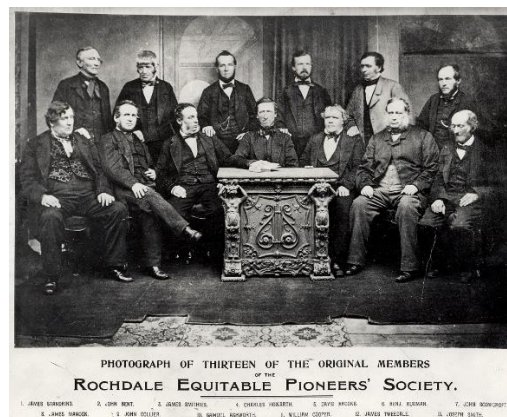


Figure 1: The Rochdale Society of Equitable Pioneers. 1865.



Figure 2: THE FIRST MODERN CO-OP. n.d.

The International Cooperative Alliance (ICA), a free enterprise, was established in London in 1895. This cooperative, which stands in for the entire world, confirmed

²⁴ “History of the Cooperative Movement,” in *Wikipedia*, December 21, 2022, https://en.wikipedia.org/w/index.php?title=History_of_the_cooperative_movement&oldid=1128781471.

²⁵ “Cooperative Housing | Housing Europe,” accessed March 10, 2023, <https://www.housingeurope.eu/event-183/cooperative-housing>.

²⁶ “Our History,” ICA, accessed March 10, 2023, <https://www.ica.coop/en/cooperatives/history-cooperative-movement>.

²⁷ Sanjinés and Barenstein, “an introductory overview”.

seven principles to guide its actions: open and voluntary membership; democratic membership control; member economic participation; independence and autonomy; education, training, and information; cooperation among cooperatives; and consideration for the community.²⁸

Following this, housing cooperatives grew quickly throughout Europe, becoming a common phenomenon at the start of the 20th century. Housing cooperatives were crucial to the rebuilding of destroyed homes in many nations, particularly after the two World Wars.²⁸ Cooperative housing organizations gradually started to play a significant role in the European housing market. The International Housing Cooperative estimates that 27 million Europeans now reside in housing cooperatives.²⁸ In the Czech Republic, Sweden, and Norway, housing cooperatives are in charge of managing over 17% of the entire housing stock. 2,700 housing cooperatives are gathered under the umbrella of the Spanish Federation of Housing Cooperatives (CONCOVI).²⁹

The development of early cooperatives in Spain

Cooperatives were first described in Spain in 1864 by the revolutionary writer Fernando Garrido Tortosa in his article *La Ilustración Republicana Federa*³⁰, which set the stage well for their growth there. Tortosa viewed Robert Owen's early cooperative system, which emphasized working together for a common objective, as the precursor to collaboration.³¹ In addition, he makes the case in this piece that the Rochdale ideals

²⁸ Sanjinés and Barenstein, “an introductory overview”.

²⁹ “Housing Co-Operatives in Spain: How They Are Formed and When to Join One to Buy a Cheaper Home,” idealista, accessed March 10, 2023, <https://www.idealista.com/en/news/financial-advice-in-spain/2021/12/15/41434-housing-co-operatives-in-spain-how-they-are-formed-and-when-to-join-one-to>.

³⁰ “Spain Archives,” *Cooperative Housing* (blog), accessed March 10, 2023, <https://www.housinginternational.coop/co-ops/spain/>.

³¹ Eduardo Montagut, “La cooperativa de Rochdale por Garrido Tortosa,” December 13, 2020, <https://elobrero.es/textos-historicos-obreros/59587-la-cooperativa-de-rochdale-por-fernando-garrido-tortosa.html>.

established by the Rochdale Equitable Pioneers Society had a significant impact on the following growth of cooperatives. The guiding principles include flexibility of membership and withdrawals, democratic management of cooperatives, economic participation of members, members' autonomy and self-determination, the value of cooperative education and training, cooperation among cooperatives, and care for the community.³² The Consumers Cooperative in Catalonia was the first cooperative model to be organized in Spain in 1865.

The first housing cooperative in Spain did not emerge until 1911.³³ Following that, housing cooperatives began to be established in Spain's capital and major cities. Unfortunately, housing cooperatives were affected and their number was cut in half during the Spanish Civil War (1936–1939).³³ In the Spanish largest cities, such as Madrid and Barcelona, many buildings and many homes, were damaged during the war. In addition to being forced to live in run-down structures covered in gunshot holes and having their homes destroyed, many residents were also left homeless. Housing in Spain was in a terrible situation as a result of the civil war.



Figure 3: THE SPANISH CIVIL WAR, 1936-1939. 1977.

Ley de Cooperativas, the first cooperative law in Spain, was initially drafted in 1938 but was never adopted. This resulted in the cooperatives that survived the civil war having no legal status for a considerable amount of time.³⁴ Hence, the law was once

³² Montagut, “La cooperativa”.

³³ “Spain Archives”

³⁴ Carlos Romero “De La Ley de Cooperativas de 1942 al Reglamento de Sociedades Cooperativas de 1978 Un Analisis Critico.” n.d.

more introduced and approved in 1942.³⁵ The regulations were not acceptable to the members of the participating cooperatives, even though they legitimized the status of cooperatives; they considered that they were inconsistent with cooperative ideals and prevented the cooperatives from being safeguarded.³⁶ However, the development of the cooperative *Obra Sindical de Cooperacion* was the law's achievement because it supported the era's cooperatives and allowed for the rapid development of cooperatives.³⁶

After the foundation of consumer and finance cooperatives that had already emerged during the Civil War, Spain's National Union of Housing Cooperatives was founded in 1957.³⁷ The Plan de Establizacion Economica sponsored Spanish housing cooperatives in 1959. To boost the construction industry, the state-backed subsidized housing and encouraged private developers and homebuyers. Due to state-imposed fiscal restrictions at the time, homeownership became the sole viable option for Spanish citizens in terms of housing.³⁸ Moreover, Spain started a campaign in the 1960s to promote access to property.³⁹ 90% of the population now desires to buy their own homes thanks to this strategy, which has decreased the prevalence of renting. Housing cooperatives later experienced another period of tremendous growth in the 1970s and 1980s. There was tremendous population growth in this period, which prompted the industrialization of important cities and a serious housing crisis therein.

The National Union of Housing Cooperatives was succeeded by the Confederacion de Cooperativas de Viviendas de Espana (CONCOVI), a national umbrella organization for housing cooperatives in Spain, in 1988. The group was founded to defend the rights

https://www.mapa.gob.es/ministerio/pags/Biblioteca/Revistas/pdf_ays%2Fa018_02.pdf

³⁵ "Spain Archives"

³⁶ Romero, "De La Ley de Cooperativas".

³⁷ "Cooperative Housing as a Means More Than an End," MAS Context, accessed March 10, 2023, <https://mascontext.com/observations/cooperative-housing-as-a-means-more-than-an-end>.

³⁸ Mike Hedges MS, "Co-Operative Housing - What Is Happening in the Rest of the World," *Mike Hedges MS | Swansea East* (blog), August 7, 2020, <https://www.mikehedges.org.uk/co-operative-housing-what-is-happening-in-the-rest-of-the-world/>.

³⁹ Ada COLAU, "Residents Organize Themselves in the Face of the Mortgage Crisis in Spain," 2012, https://www.citego.org/bdf_fiche-document-2399_en.html.

of its members before the government and to work with other social organizations to advance social housing in Spain.⁴⁰

Housing crisis coursed by the Global Economy Crisis in Spain

Starting in the 1960s, the Spanish government used the slogan "House prices won't go down, renting is like throwing money out the window" to entice people to buy homes.⁴¹ The state primarily encourages the rise in the share of owner-occupied housing by making renting unappealing and privatizing social housing.⁴² Rent is now so expensive due to the surge in home ownership that many individuals believe it would be preferable to just buy a house rather than rent. Because of this, relatively few people in society rent, and some people even face discrimination due to it. However, the majority of people are actively obtaining bank mortgages to purchase their own homes.

Nonetheless, the Spanish government's strategy for motivating the populace to purchase homes was to encourage them to obtain mortgages. A 15% mortgage deduction was allowed under the tax code at the time⁴³, and Spain subsidized the sale of owned properties to low-income families at rates below market value.⁴² The state's encouragement of lending served as an instrument for social stability. The state reasoned that if people solely concentrated on working to pay off their loans and mortgages, they would be more submissive.⁴¹

Spanish real estate prices rose in stages between 1985 and 2008 during the buying boom.⁴⁴ The Spanish real estate bubble, which also resulted in the over and significant

⁴⁰ "Spain Archives".

⁴¹ COLAU, "Residents".

⁴² Di Felicianantonio, "Social Movements", 38-56.

⁴³ "Spanish Property Bubble," in *Wikipedia*, September 15, 2022, https://en.wikipedia.org/w/index.php?title=Spanish_property_bubble&oldid=1110467587#cite_note-13.

⁴⁴ "Property Bubble".

housing issues for the majority of people, was reflected in the excessive growth in real estate prices. The ambiguity of the mortgage process, or the fact that the owners are unaware of the entire mortgage process, is one of the key causes of this.⁴⁵ The worldwide recession that started in 2007 exposed the inconsistencies in the Spanish system, which is based on a massive amount of debt.⁴⁶ Numerous individuals didn't know they were permanently in debt until the economic crisis hit and they regained their senses.

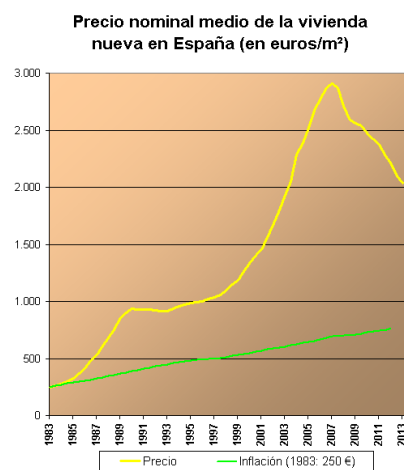


Figure 4: Spanish House Prices 1984-2013. n.d.

Several homes have been significantly impacted in Spain after the real estate bubble burst there in 2008. Due to their inability to pay their mortgages, more than 400,000 families have been forced to relocate.⁴⁶ In reality, the majority of the locals are merely common victims of this, but they endure numerous harsh and cold evictions. Within a week of kicking people to the ground, the police even poked their fingers into their eyes.⁴⁷ Photographer Andres Kudacki captured several evicted families. Many Spaniards' lives have been dramatically altered by the onset of this economic crisis. The lives of all citizens, from infants to the old, dropped down a cliff seemingly overnight.

⁴⁵ COLAU, "Residents".

⁴⁶ Di Felicianantonio, "Social Movements", 38-56.

⁴⁷ "These Photos Show the Reality of Spain's Housing Crisis | Time," accessed March 10, 2023, <https://time.com/4007349/spain-evictions-housing-crisis/>.



Figure 5: Andres Kudacki, Family Got Evicted in Madrid. September 2013.

Housing cooperatives promoted by social movements in Spain

Some Spanish residents started to form social movements from the bottom up to fight against evictions and injuries as a result of these challenges and crises. Plataforma por una Vivienda Digna (PVD)⁴⁸, which pushed this social movement through an online forum, was founded in Madrid in 2003. They initially peacefully exercised their power, mostly by attempting to persuade the government to regulate housing costs, prevent artificial price spikes, etc. In 2005, "to obtain a roof. Quit speculating "was the rallying cry of a significant protest in Madrid. This was started concurrently by the Decent Housing Platform and other social organizations, such as la Red de Cooperativas de Vivienda Joven (COVIJO)⁴⁹, to demand that the government uphold Article 47 of the Spanish Constitution, which guarantees everyone the right to decent housing. Additional demands were added to the original demands, such as asking the government to stop evictions and to come up with solutions for those whose housing debts they cannot afford to pay.⁵⁰

⁴⁸ "Plataforma por una Vivienda Digna," in *Wikipedia, la enciclopedia libre*, April 23, 2021, https://es.wikipedia.org/w/index.php?title=Plataforma_por_una_Vivienda_Digna&oldid=134995276.

⁴⁹ "Movimiento por una vivienda digna en España," in *Wikipedia, la enciclopedia libre*, June 4, 2022, https://es.wikipedia.org/w/index.php?title=Movimiento_por_una_vivienda_digna_en_Espa%C3%B1a&oldid=143981257.

⁵⁰ "Movimiento por".

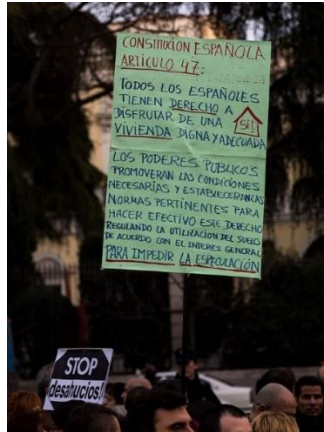


Figure 6: Barcex. Madrid. February 2013.

With media coverage, this movement became increasingly significant in 2006. Moreover, residents started congregating in cities like Madrid and Barcelona to demonstrate their opposition through sit-ins. ‘You won't have a house in the puta life!’ yelled the "V de Vivienda" assembly in Barcelona in the fall of that same year, calling for protests.⁵¹



Figure 7: MasterJ. Rally for Adequate Housing in the Puerta Del Sol, Madrid. May 2006.

The bottom-up movement Plataforma de Afectados por la Hipoteca (PAH) was created in Barcelona in 2009 with the twin objectives of "rapid reaction to the affected population" and "assert the right to housing".⁵² Although the "V de Vivienda" movement served as the foundation for PAH, the former was not widespread support for it during this time, which led to PAH's explosive growth at the time.

This illustrates the significance of resident participation in the social movement for

⁵¹ Di Felicianantonio, "Social Movements", 38-56.

⁵² COLAU, "Residents".

housing in Spain because the majority of the groups of the era were founded by locals organizing themselves. Although particular organizations' methods and tactics vary, the majority of them developed from societal pressure to public engagement and self-management. For instance, Seville's collective initiatives for the right to the city.⁵³ Several architects have revitalized the idea of housing in their practices and developed innovative, affordable housing solutions in this setting to address the housing crisis and social issues in Spain. Collaborative housing has reemerged in this situation as one of the alternate housing models.⁵⁴ The system in which people co-produce their own homes in full or in part in cooperation with recognized providers is now known as cohousing.⁵⁵ This implies that every coop member and stakeholder actively contributes to the planning of co-housing from the bottom up.

Early theoretical development of participation

Architects always have a lot of thoughts about participation, which has been a major concern. In 1951, at the Congress of Hoddesdon, architects believed they had discovered a workable answer to the issue of urban center rehabilitation⁵⁶. The most significant administrative operations should all be located in the city center, and the most alluring activities should be located close to the city center, according to their belief. A similar strategy was already in existence in Frankfurt at the time. For a while, no one cared to carefully consider how such a scheme would seriously impact the populace before making the choice; it was just done. The wealthy owned the city's center, and the cities impoverished were shut out of the suburbs. In reality, the problem

⁵³ Alejandro Muchada et Pablo Alvero "The Active Participation of Spanish Citizens in the City.," 2012, https://www.citego.org/bdf_fiche-document-2405_en.html#iref:note.

⁵⁴ Brysch, "LA BORDA".

⁵⁵ Darinka Czischke, "Collaborative Housing and Housing Providers: Towards an Analytical Framework of Multi-Stakeholder Collaboration in Housing Co-Production," *International Journal of Housing Policy* 18, no. 1 (January 2, 2018): 55–81, <https://doi.org/10.1080/19491247.2017.1331593>.

⁵⁶ Giancarlo De Carlo. "Architecture's Public." Digit book. In *Architecture and Participation*, 1st ed., 3-22. London: Taylor & Francis, 2005.

concerns ownership and participation in the city.

One of the causes of the furthermore during is the imprecise way in which people have long viewed the function of architects. At a seminar in Liège in 1969, Giancarlo De Carlo stated that the term "architect" was constantly used to designate everyone from the junior brickwork to Cod (the highest "architect" of the universe⁵⁷. Between the lowest implementation and the highest vanity is where the architect is situated. As such, this could result in a situation where the architect is the only one making decisions and participating in the entire construction process, from creation to completion. According to Giancarlo De Carlo, the challenges of architectural credibility and public competency must be understood fully in the modern⁵⁷. Once these concerns are known, it is important to consider what aspects of credibility and public competency are most important. Everyone who enters or exits the facility qualifies as the answer to this question.

In 1969, 'people's participation is a categorical phrase for citizen power' asserted Sherry Arnstein, who created Ladder of Citizen Participation. One of the most frequently used and influential models for democratic social participation is this one. The theory's objective is to offer a more comprehensive view of how real citizen participation functions and how to improve levels of public agency, control, and power⁵⁸, but it has also encouraged various architects, including Jon Broome, to collaborate with locals on construction projects⁵⁹. Thereafter, participation came to be seen as crucial in the 1970s

⁵⁷ Carlo, "Architecture's Public", 3-22.

⁵⁸ "Ladder of Citizen Participation," Organizing Engagement, November 1, 2019, <https://organizingengagement.org/models/ladder-of-citizen-participation/>.

⁵⁹ Broome, "Mass Housing", 65–76.

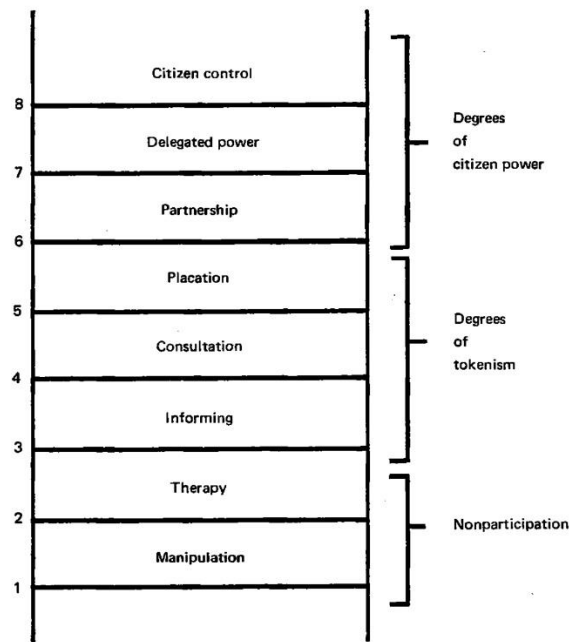


Figure 8: Sherry Arnstein's Ladder of Citizen Participation

Critical perspectives of participation

Some academics, though, are skeptical of participation. The first chapter of Uma Kothari's 2001 book *Participation: The New Tyranny* asserts that the practice of participating itself may be harmful to individuals⁶⁰. In chapter 7 of his book, Bill Cooke provides a psychological explanation of this phenomenon.⁶¹ Decisions in participatory processes are riskier because the participant's awareness might be influenced by the dominating person's consciousness.⁶² The majority of individuals in participation groups will consciously take on more risks to grow their influence inside the group, which is indicative of this. When his influence reaches a certain point, the majority of people will be swayed by such persons, leading to the group making increasingly risky decisions. The writers also note the existence of antagonistic factions who have different perspectives and the notion that they will destroy each other rather than reach

⁶⁰ Cooke and Kothari, "The Case", 1-15.

⁶¹ Bill Cooke, "The Social Psychological Limits of Participation?", Chapter seven in *Participation: The New Tyranny?*, 102-121, (London; New York: Zed Books, 2001), <http://archive.org/details/participationnew0000unse>.

⁶² Cooke, "The Social", 102-121.

a settlement as two of Janis' eight signs of groupthink.⁶³ These participatory approaches instead restrict people from actually engaging, from expressing their honest opinions, and, in the worst situations, from being exposed to risk and injury. They do not grant everyone freedom or beneficial rewards.

Similarly, registered architect and author Markus Miessen claims in his book *The Nightmare of Participation* that taking part in democratic processes is a form of violence⁶⁴. If participation is seen from a wider political standpoint, many politicians and representatives who are charged with making decisions for the people will avoid their duties through participation because they do so in a direct attempt to avoid their jobs and obligations by relying on public opinion polls.⁶⁴ The truth is that plenty of people, despite having strong ideas and points of view, make decisions that could lead to errors or greater harm if the conversation is limited to those who aren't genuinely experts in their area. The bulk of participants in the participant group can be those who are actively participating. There aren't many people in the participatory process who would suddenly interrupt them and challenge their talks and decisions, even though they might be condemned for the choices they make.⁶⁵ Markus claims that this is the case because people are more able to acquire empathy the closer they are to something or someone.⁶⁵ In contrast, if someone follows a path that differs from the norm, they are criticized for being unrealistic and idealistic. Are the participants in such a situation engaged? Without a doubt, no.

In reality, academics do not condemn participation as an act or activity; rather, they criticize how it can be used to encourage oppressive, harmful, and undemocratic behavior. Participation is a collective activity, which will be challenging to prevent conflict between groups or between people within a group. But still, there must be a more constructive way to reconcile these contradictions. Hence, even as we critically

⁶³ Cooke, "The Social", 102-121.

⁶⁴ Miessen, *The Nightmare*, 42.

⁶⁵ Miessen, *The Nightmare*, 45.

examine involvement, we must not lose sight of the benefits it brings to individuals and society.

Three aspects of participation for sustainability from Jon Broome

Since the 2000s, there has been a growing interest in the sustainable development of architecture, including in the residential market. Jon Broome, an architect, and self-builder, proposed at the start of the twenty-first century that resident participation is a sufficient condition for achieving sustainable housing aims.⁶⁶ However, he contends that most residents of large-scale housing developments since the Victorian industrial city have been passive participants.

The concept of sustainable development was first put forth by Gro Harlem Brundtland in 1987. According to her, it entails "ensuring that the requirements of the present are addressed and that the resources to meet the demands of future generations are not compromised"⁶⁶. Brundtland's theory has favorably inspired Jon, and he further stated that participation can positively affect three types of sustainable capital for future generations: natural capital, man-made capital, and social capital⁶⁶.

The stock of natural resources in the globe, including geology, soils, air, water, and all living things, is known as natural capital⁶⁷. Because many of the building materials used in construction are made from natural resources or the energy necessary to produce them, the process of building has a strong relationship to natural capital. The disposal of building waste can harm natural resources, such as landfills that contaminate the soil and incinerators that contaminate the air, and this can have an impact on natural capital.

⁶⁶ Broome, "Mass Housing", 65–76.

⁶⁷ "Natural Capital," in *Wikipedia*, February 22, 2023, https://en.wikipedia.org/w/index.php?title=Natural_capital&oldid=1140949608.

Using renewable resources to the fullest extent possible while reducing or eliminating the use of non-renewable resources is the most direct strategy to ensure the sustainability of natural capital. Spend natural building materials like wood instead of concrete, for instance, and use less of it.

Man-made capital has two levels of significance: first, only the building itself is a stock; second, only the stock of man is flexible enough to adapt to changing conditions. A building is first and foremost a physical creation that can adapt to the future for a very long time since it can be utilized by humans for very long periods. As a result, this calls for a structure that is both sturdy, resilient to damage, and user-friendly. On the other hand, a structure must be adaptable or robust in both the short and long terms. For instance, a building might be initially designated as a dwelling, but after 50 years, it might be needed as an office instead. It must be built with some internal space flexibility in mind when it is first constructed to handle this shift in demand.

According to Jon Broome, the term "social capital" relates to social structures, suggesting that people must participate and be included in society. In actuality, various angles should be used while discussing social capital⁶⁸. From the viewpoint of the building user, it can better enhance user satisfaction and relationships between building users from the design and construction phase before the building is built through the operation and management of the building after it is completed. Additionally, if we use a building as a unit to broaden the standpoint of the entire society, one way to ensure that the society as a whole has good credibility and successful operation is for citizens to actively participate at all levels—from the building level to the community level to the city level to the level of the entire society.

⁶⁸ Di Feliciano, "Social Movements", 38-56.

The theory and practice

of the architect cooperative LaCol on participation

Citizen participation has been ongoing in Barcelona, Spain. The "Barcelona model" has been a consistent building block since 1992, and a large part of its success has been attributed to the participation of the city's citizens⁶⁹. To discuss the division of duties for the Barcelona social welfare sector between the sector head and the social agents, the programme Citizen's Agreement for an Inclusive Barcelona (CA) was founded in 2005. They create action networks for the exchange of information resources alongside social organizations, such as the Network for Help to the Homeless and the inclusion housing network, etc.⁷⁰ Although this program is mostly being used for social welfare, it nonetheless represents the historical backdrop and social involvement process in Barcelona and even in Spain. In Barcelona and especially in Spain, there is a historical background and social engagement process.

An architect cooperative by the name of LaCol wrote an article titled "Against participationism" in the book *Building Collaboratively* to voice their disapproval of dishonest participation and their conviction that participation can transform the world⁷¹. The power of participation to transform the world. As illustrated by the example provided by LaCol in the article, such fraudulent involvement frequently takes place during the political participation process. The participants were unable to determine the project's precise purpose when it hired Ciutat Vella citizens for a local construction project⁷². People are only engaging in such activity in the sections that the government wants them to, not in the parts that they genuinely want to. Because it puts the less important aspects of the issue in the hands of people to decide on, whereas in reality

⁶⁹ Teresa Montagut, Gemma Vilà, and Sebastià Riutort, "Barcelona: A Citizen's Agreement for an Inclusive City," in *Social Innovations in the Urban Context*, ed. Taco Brandsen et al., Nonprofit and Civil Society Studies (Cham: Springer International Publishing, 2016), 273–79, https://doi.org/10.1007/978-3-319-21551-8_22.

⁷⁰ Montagut, Vilà and Riutort, "Barcelona", 273-79.

⁷¹ LaCol. "Against Participationism." in *Building Collectively : Participation in Architecture and Urban Planning*, 28–31. Pol·len edicions (El Tinter SAL), 2019.

⁷² LaCol, "Against Participationism".

the most significant aspects are decided by the individuals who have the authority to do so, this type of false participation is not accepted. Such a situation is also how Markus Miessen opposes the use of participation to commit violence.

Architects love architecture, but they cannot neglect other things and society beyond architecture. Residents must also be active to stay active and overcome their separation from their surroundings, in addition to architects.⁷³ Fundamentally, human cognition affirms that for an active process to begin, people and people, people and environment must forge connections with one another. Participation in the process of decision-making does not permit people to express their thoughts but rather calls on the powerholder to cede control.⁷³ Giving up control implies doing nothing; rather, it means assisting the participant in understanding and coming to other conclusions. Participation is not a one-way process that lets individuals make decisions and then put them into action, advancing the project's timeline and ending when it does.

Similar to LaCol's view that is "not against participation, but for critical participation," participation is a perpetual process of ongoing feedback.⁷³ In other words, even though participation is encouraged, it cannot be elevated to the point where it does not act in a way that would produce positive results. It's crucial to constantly think about the issues and alter the ways or modes of participation in the process of participation rather than establishing precise rules of participation and then pleading with people to abide by them. Only by keeping a critical mindset throughout the process of actual participation, continually reviewing and correcting, selecting a better mode of engagement, and making wiser selections. It is a process in which both the project and the participants advance.

With this participatory attitude, LaCol, together with many other residents, organized the project Can Batlló in 2011. One of the most significant industrial relics from the

⁷³ LaCol. "Against Participationism", 28-31.

19th century that is still standing is Can Batlló.



Figure 9: Can Batlló: From the Time of Factories to the Present Day.

Residents started to take action to unite and form a self-managed platform to reinvigorate the neighborhood since the region remained unoccupied after individuals and businesses relocated and the government's promised development measures were stalled in the process. To create a cultural and self-management facility, the first initiative, Bloconze, was thus put into motion by LaCol and the locals⁷⁴. Several groups, like the "Spatial Design Committee" and the "Infrastructure Committee," were established throughout the project's development⁷⁵. LaCol, who is an architect, provided the internal committee with rudimentary architectural knowledge. For instance, they decide on the building's restoration plan, the best course of action, etc. A communal space that is self-managed is formed as a result of such participation.



Figure 10: BlocOnze de Can Batlló.

⁷⁴ "BlocOnze de Can Batlló," Lacol, accessed March 16, 2023, <https://www.lacol.coop/projectes/bloconze-can-batlló/>.

⁷⁵ "Can Batlló".

Background and development of the housing cooperative La Borda

Sants-Montjuïc district in Barcelona has a long history of housing cooperativism and strong local relations.⁷⁶ Similar to other parts of Spain, the region also had housing issues during the Global Financial Crisis of 2008. The Can Batlló project, a neighborhood self-management movement, was born here. The participants not only collaborated with the architects to design their independent spaces, but they also spoke out in open forums on the neighbors' choice to share information with neighborhood social organizations.⁷⁷ After that, working committees for financial management and open space design gradually developed, and other initiatives were planned to address more community needs.⁷⁸

The dwelling component is included in these projects. A housing cooperative for the transfer of tenure was established by the Neighborhood Movement to support the development of affordable housing.⁷⁸ A 75-year lease⁷⁹ on public land for subsidized housing was also gained by the Neighborhood Movement's directors in 2018 after extensive negotiations with the Barcelona City Council on the leasing of the property.⁷⁸ As a result, the La Borda project was established. Moreover, La Borda evolved as a solution to the region's insoluble housing problems as well as a pioneer in affordable housing.

The directors of La Borda decided to collaborate with groups that support the housing cooperative model and share the same objectives because the effects of the Global

⁷⁶ Sandra Girbés-Peco et al., "The Role of the Democratic Organization in the La Borda Housing Cooperative in Spain," *Habitat International* 102 (August 1, 2020): 102208, <https://doi.org/10.1016/j.habitatint.2020.102208>.

⁷⁷ Cabré and Andrés, "La Borda", 412-32

⁷⁸ Girbés-Peco, "The Role".

⁷⁹ Brysch, "LA BORDA".

Financial Crisis have limited how much money most residents can invest. The bank Coop57, one of the partners, provides microcredits to residents of La Borda, including house loans, participatory loans, etc.⁸⁰

Each family that joins the project must pay an initial entry fee of 18,000 euros, however, this is not a gambling system. Residents pay a monthly fee to the cooperative to obtain the "right to use" the housing, rather than owning it or renting it, as partners.⁷⁹ The GOU(Grant of Use) model is one such cooperative housing scheme that uses such a system.⁸¹ The Danish Andel cooperative housing and the Uruguayan mutual-aid housing cooperative served as models for the design.⁸¹ The Andel model is built on a non-profit cooperative's private initiative to build and oversee housing for its members. In cooperatives, members have the exclusive right to live in one of the homes for as long as they remain members of the cooperative.⁸¹ Residents of La Borda also pay a monthly charge that they can afford in addition to the initial entry price. The initiation fee will be reimbursed to any resident who decides to leave the cooperative.

Even though comparable housing concepts are employed, the precise implementation alternatives and difficulties will change depending on the real circumstances in various countries and locations. The general right of all participants to participate in management and decision-making remains unaffected, which supports the significance of resident participation throughout the project process.

Participation process in the design and construction of La Borda

The original round of negotiations at the Barcelona City Council only featured eight participants from LaCol and other organizations.⁸² Following the official action, the

⁸⁰ "More Than an End"

⁸¹ Girbés-Peco, "The Role".

⁸² Cabré and Andrés, "La Borda",412-32

founding members worked to create events that would draw additional individuals to the group. Later, after the team had grown to 55 persons⁸³, discussions about the creation of working committees around several subjects, including law, economics, and architecture, started. The intergenerational community that La Borda eventually created consisted of 45 people and 13 kids ranging in age from 20 to 70; roughly 60% of the residents were women and 40% were men.⁸⁴

The La Borda cooperative's self-management structure consists of a governing council and seven committees including Architecture, Shared-living, Communication, Legal Commission, Administration, Economics & Financing, and Coordination committees.⁸⁵ The governing council made up of a representative from each committee meets once every 15 days to talk about pertinent issues.⁸⁵ The members of each committee then offer these issues to the committee for consideration. A monthly general meeting is held concurrently for the entire cooperative, attended by at least one person from each family, and it serves to reflect the cooperative's primary consensus and strategic pillars.⁸⁴

Apart from some aspects that are simple to comprehend and decide on, modifying the cooperative necessitates choices in a lot of specialized sectors. like finance, law, and architecture. The corresponding committee members will first inform the cooperative members about the pertinent expertise in those areas where expertise is more crucial.⁸⁴ In the case of architecture, for instance, the architect will carefully plan the level at which the residents can participate in the conversation with everyone.⁸⁵ The cooperative members also have a lot of faith in the architect's abilities following conversation and exchange. Although the architect slows down construction to some amount, locals do not question the architect's strategy because they are aware of what the architect is doing.

⁸³ Cabré and Andrés, "La Borda", 412-32

⁸⁴ Girbés-Peco, "The Role".

⁸⁵ Brysch, "LA BORDA".



Figure 11: *Architectural Design Discussion Process of La Borda*. n.d.

In the part on private dwellings, the architects offer a modular structure to specify the purpose and arrangement of each module. The residents can choose the modular layout of their living area after consulting with one another. Everyone must work together to coordinate for this part, however, occasionally there are areas of contention. For instance, when two nearby homes wish to occupy the same location at the same time, active discussion is necessary to find a solution. Also, the cooperative decided jointly to leave some unfinished rooms so that people can flexibly design and plan them.⁸⁶ Residents can take part in finishing unpainted walls, unassembled blinds, etc. on their own, for instance. The architects design workshops or seminars on particular themes for the locals to attend for assignments that require more specialist technical help.⁸⁶ Provide them with instructions on how to assemble the kitchen module, as an example. In addition to building the home they want, this enables the occupants to advance their knowledge.

The entire participation system is, in general, adaptable. The themes for discussion are determined by the inhabitants' actual needs. Plenty of different themes, and as time passes, new demands emerge. The process of participation includes two-way feedback. At the general meeting, residents voice their demands and complaints, and the committee splits the work into several solutions based on the nature of the issues. The

⁸⁶ Brysch, "LA BORDA".

issues are then raised in the assembly once more for consideration. This procedure might include several iterations, but it might also lead to a general assembly where choices are made. Throughout the process, the structure of the conversations and the way the activities are carried out will alter by the requirements. This echoes LaCol's theory of participation, specifically their notion of critical participationism.

There are undoubtedly still plenty of challenges in the process. Some conferences may last for more than five hours.⁸⁷ These sessions required careful time management from the start due to the enormous number of topics that needed to be addressed and the high number of persons who wanted to voice their opinions. As a result, the governing council must plan the subjects for each meeting. Despite this, some locals believe that they occasionally don't have enough time to consider the problems, which leads to hasty actions⁸⁷. However, not every resident has the ability to make decisions immediately with the assistance of experts, which causes some problems to go unattended and results in decisions being delayed⁸⁷.



Figure 12: Typical Floor Plan of La Borda.

⁸⁷ Brysch, "LA BORDA".

Discussion of how participation in La Borda achieves sustainability

The structure and approach of La Borda predetermined the significance of participation. A portion of the population's housing problems are resolved by the housing cooperatives in which the locals take part, and thus effectively aids in the innovation of the Catalan housing model. The project is sustainable in this way, among others. La Borda also reflects Jon Broome's viewpoint on sustainability, which holds that participation can have a positive impact on natural, man-made, and social capital.

Natural Capital

La Borda's design aims to minimize any potential environmental effects associated with its development and operation, to provide comfortable living quarters with minimal energy use, to lower overall living expenses, and to end energy poverty among its users.⁸⁸ Except for the ground floor, where columns and slabs are made of concrete, the La Borda proposal uses CLT as its primary building material. CLT is a wood-based natural building material that uses less concrete and makes better use of renewable resources. The building's construction costs would rise by 20% if it were fully composed of concrete.⁸⁹ The building's ecological footprint is reduced by using wood, which also lowers construction costs and long-term energy use. As each CLT component is left intact after installation, the building also has the potential to be disassembled and its components recycled.

⁸⁸ “La Borda Housing Cooperative by Lacol,” accessed March 23, 2023, <https://www.gooood.cn/la-borda-housing-cooperative-lacol.htm?lang=en>.

⁸⁹ Brysch, “LA BORDA”.



Figure 13: The Ground Floor of La Borda.

Man-made Capital

The durability and flexibility of the building itself speak to the sustainability of human-made capital. The combination of CLT and concrete gives the structure remarkable durability and stability. The distinctive and cutting-edge structure of CLT transforms it into a sturdy building material in place of concrete, even though concrete itself has exceptional strength and load-bearing capacity. In terms of the living space's design, the house is made up of many components. There are removable walls constructed between the units. This leads to a changeable residential space.



Figure 14: Removable walls in the typical floor plan (Analysis author: Ying Shen)

The cooperative's shared living concept encourages sustainability as well. In contrast to the general housing paradigm, this communal living model encourages community life by encouraging sharing of space because private space is limited.⁹⁰ The revised concept of the minimal value of private space reflects this.⁹¹ Several modules are used to assemble the homes into three basic types: S (40 m²), M (60 m²), and L(90 m²). The building also has a few communal areas, like a shared kitchen, bathroom, guest room, and laundry. A couple who previously resided in 150m2 in La Borda decided the M type of housing was adequate for their private lives.⁹¹ The public area can also be used for other common activities. A strategy like this not only makes public areas and amenities more usable but also significantly lowers some of the waste associated with facility ownership and extra private space. Sharing can enhance the use of washing machines and avoid everyone from purchasing a washing machine, for instance, as individuals only use washing machines when they need to do laundry.

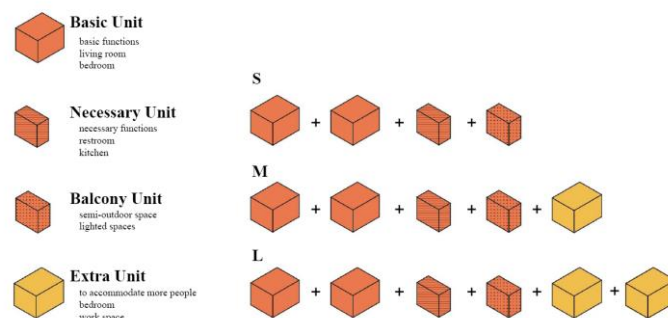


Figure 15: Analysis diagram of housing modular unit of La Borda (Author: Ying Shen)

Social Capital

Some of the residents who took part in the La Borda expressed their happiness at learning new professional skills. Along with enhancing their knowledge, this learning gives the team members more autonomy over decision-making and boosts their sense of confidence⁹¹. Since the participation process is one of the ways participants can enhance their practical skills and experience, resident engagement has a favorable impact on the development of individual competencies. When personal competencies

⁹⁰ Girbés-Peco, "The Role".

⁹¹ Brysch, "LA BORDA".

are improved, the advantages extend beyond the program and may have an impact on a person's later experiences, professional development, and even social cohesion.

It is evident that the participative method also fosters the growth of interpersonal ties. Some locals claimed that during the participation process, they experienced a great sense of belonging⁹². Residents developed a sense of collective identity and personal presence in the group activity by deliberating and making decisions collectively. During the drawn-out decision-making process, residents learn more about one another and realize that cooperation among cooperative members is what gives collective organization significance. Those who feel a sense of solidarity with one another will start to think about topics that can influence how society as a whole develops. This unquestionably has a favorable effect on the outcomes that the cooperative presents.

Conclusion

To address the housing shortage caused by the rise in urban population brought on by the industrial revolution, housing cooperatives evolved as a type of affordable housing. Since the initial form of emergence was started from the ground up by a group of common citizens, it also established the importance of cooperative spirit and participation.

Although it did not exist until the early 20th century, Spain's first housing cooperative allowed many individuals who had lost their homes and shelter during the Spanish Civil War the chance to find new residences. The law governing housing cooperatives in Spain started to take shape later, in the 1930s, which helped to accelerate their fast growth in Spanish society. The Spanish government started offering housing subsidies in 1960 and has since worked with private developers to support the growth of the

⁹² Girbés-Peco, "The Role".

building industry. The majority of citizens in Spain desired to purchase their own homes and actively engage in the boom of home mortgage purchases as a result of the State's proclamation and policy encouraging people to do so. The stimulation coming from all facets of society was causing a rise in housing costs in Spain.

In addition to fueling Spain's bubble in housing, the quick rise left a significant portion of the population in debt from mortgage loans. Unfortunately, this housing bubble began to burst during the 2008 Global Financial Crisis. Due to the GFC, several residents were evicted since they couldn't pay back their loans. In certain locations of Spain, a bottom-up community movement against eviction and victimization was sparked by residents who lost their houses as a result of the bubble. The neighborhood movement's collective and cooperative mindset enabled isolated members to actively participate and cease tackling challenges alone, and it was able to develop affordable collaborative housing plans.

Hence, participation has grown to be a crucial component of Spain's neighborhood movement and a housing cooperative. Scholars have explored and are still developing the theory of involvement in the architectural profession. In the beginning, it was believed that architects made all of the decisions, from hiring the tiniest bricklayer to hiring the largest fish.⁹³ But beginning in the 1970s, there was a rising understanding of the significance of public participation in all professions, including architecture. For instance, Sherry Arnstein's "Ladder of Citizen Participation" and John Turner's "Dweller Control" are both significant theories that encourage participation. Scholars like Markus Miessen and Uma Kothari, however, are against using participation to perpetrate violence.

Since the 2000s, the architecture industry has been more interested in sustainability. For instance, Jon Broome claims that resident participation is an essential prerequisite for

⁹³ Carlo, "Architecture's Public", 3-22.

sustainable housing goals.⁹⁴ He elaborated on Gro Harlem Brundtland's idea of sustainability, stating that natural, man-made, and social capital are the three types of sustainable capital that resident involvement may provide to future generations.⁹⁴ Several residents of the Sants-Montjuc area and the architect cooperative LaCol in Barcelona, where there is a culture of participation, have banded together to form the sustainable housing cooperative La Borda, which emphasizes participatory design.

The GFC that impacted the citizens of Sants-Montjuc, who shared society's housing issues, also contributed to the emergence of La Borda. La Borda's GOU housing plan is not just non-speculative but also makes the cooperative affordable for each inhabitant, drawing inspiration from the Danish Andel model and the Uruguayan mutual housing cooperative. As the architect of La Borda, LaCol's "Against Pparticipationism" ideology of participation has played a significant role in directing the participatory process. Genuine participation and critical engagement, a principle of LaCol, have produced a participatory process that is continually evaluated and improved. La Borda's natural, man-made, and social sustainability were all achieved through collaboration between the locals and the architects. The growth of participatory housing cooperatives in Spain has been positively influenced by La Borda, which is not only a successful example of resident participation in a cooperative but also a case of creative affordable housing in the area and even in Spain.

⁹⁴ Broome, "Mass Housing", 65–76.

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