

HOW CAN LANGUAGE CHANGE THE WAY WE DESIGN ARCHITECTURE?

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ABSTRACT

1st, 2nd and 3rd generation migrants lack representation in the policies and urban planning agendas of the Five Star Movement, Turin's incumbent political party. As a result, there are residing social, cultural and political conflicts, further heightened by the lack of communication and use of language between these communities that retains the inter-group social conflicts.

In this paper, I will investigate the ways in which common difference and language can be utilized as an antidotal design tool to create a progressive and ethnically representative model for the architectural practice and in effect, give authorship and political visibility to diverse communities. The starting position is that the district of Barriera di Milano is the most diverse, multilingual and contested community within Turin, with a long exemplary history of migration and sociocultural friction. Thereafter, the paper is structured in two parts:

The first investigates the theories utilized by 3 avant-garde applications of language. Firstly, this will serve as a historical analysis of the applications of language. Secondly, it will interrogate how language was activated by the Futurist movement as a political tool, the Oulipo in relation to methodology and by Peter Eisenman, in relation to creating a formal and spatial manifestation of language into architecture.

The second section is a narrative assessment of my own design work, which has borrowed from the principles of the 3 avant-garde references. In sum, the ambition of this thesis is to investigate how language can be applied within this context, to develop architectural outcomes that empower and give authorship to multilingual communities, whilst highlighting the role of the architect and the community within the process and outcome of design.



FIG.1: The gardens.

CONTEXT OF TURIN

The current governing party, Five Star movement (M5S), led by the comedian, blogger and politician, Beppe Grillo was established in 2009- identifying as a more well-rounded alternative to their polarized political predecessors, such as the Partito Comunista d'Italia and Northern League parties, who sit on the extreme ends (left and right) of the political spectrum. M5S have developed social and political significance for their citizens through a populist party that negates internal differences of the communities by inaugurating what Filippo Tronconi, a professor of Political and Social Sciences explains as a "resentment over local environmental and social service issues to a larger national theme of a non-representative political caste."¹ Stefaan Walgrave and Jan Jagers, professors of political sciences define populism as always referring to and justifying its actions to the best interest of people as "it considers people as a monolithic group without internal differences."² Critically, this approach to politics introduces a problematic assumption that all citizens are the same and ignores their differences within the urban environment. This perhaps leads to a misguided political approach because it does not represent the diverse communities, whilst potentially demobilizing their role in the future built environment.

M5S aims to be an activist in thematic closeness to Italian social movements, which can be understood as bearing a close relation in political, social and environmental ideologies and objectives. However, Grillo has played an ambiguous role in issues of migration and avoids the topic in public discourse as it could "easily split his extremely diverse electorate."³ This evasion of socio-cultural issues has left increasing numbers of generational migrant populations unrepresented. By unrepresented I am denoting the lack of actions or speech on behalf of a person or community, pertaining to a lack in the respected individuals rights, acknowledgment in political legislations and development of the built environment. M5S govern with the understanding that they are representative of the masses, giving their "backing to movements and campaign groups with shared objectives"⁴ to their own and perhaps unintentionally fostering favouritism towards chosen communities.

Moreover, Pietro Cingolani, a researcher of culture, politics and society characterized the neighborhood(fig.1-3) as "densely built around narrow streets, with very few squares, no green space and a lot of disused industrial areas."⁵ Lacking in schools and community facilities, like "a ghetto full of contradictions and poverty, with tensions that pit immigrants against the native residents along ethnic as well as intergenerational divides."⁶ These social divides are contingent on the lack of communication between the communities, the political power forces, the city planners and architects.

1 Tronconi, F. (2018). Beppe Grillo's 5 star movement. p.152

2 Jagers, J., & Walgrave, S. (2007). Populism as political communication style: An empirical study of political parties' discourse in Belgium. *European Journal of Political Research*, 46, p.322.

3 Tronconi, F. (2018). Beppe Grillo's 5 star movement. p.159.

4 Ibid. p.158

5 Özogul, S. (2016). Ferruccio Pastore and Irene Ponzio (eds): Inter-group relations and migrant integration in European cities. *Journal of Housing and the Built Environment*, 32 (3), p 123.

6 Ibid. p 127.



FIG.2: Arial view.



FIG.3: Street view.



FIG.4 A: Prior to development.

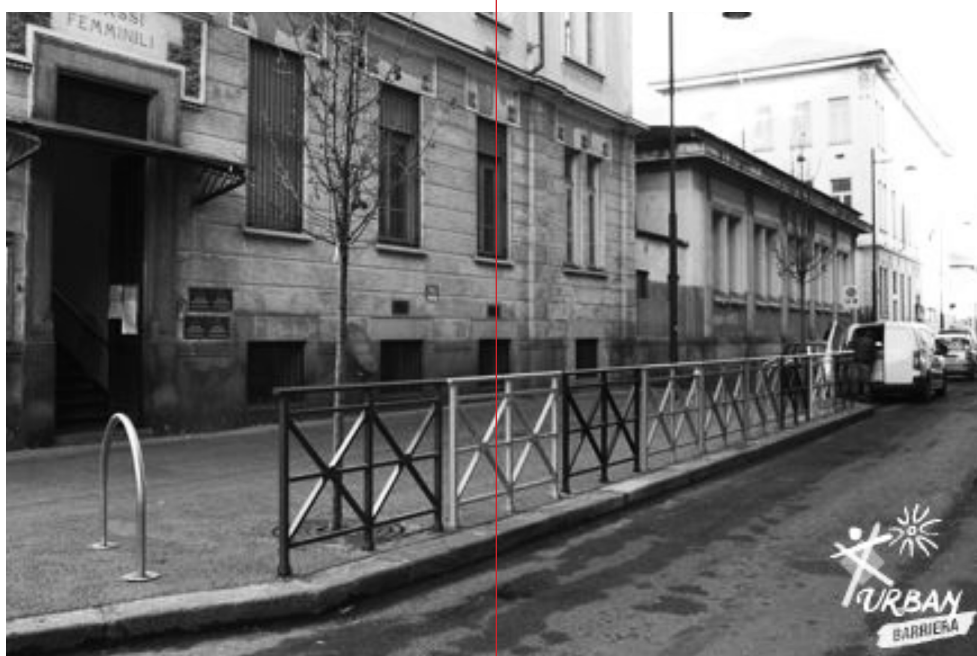


FIG.4 B: Post development.

Although recent architectural development(fig.4) has attempted to resolve some of these disparities in the built environment through community involvement, placemaking and policy making⁷ they are ultimately failing, denoting not only the tired design methodologies, but also the lack of cross cultural belonging between the communities and public spaces, the importance of which is evident through the association of spaces within the urban environment to themselves. An example of this is “a section of the gardens around the ping-pong table”⁸ occupied by the young Romanians who “emphasize their sense of belonging and the role of social control they exercise in these public spaces.”⁹ Hence a lack of representation can be identified as a causal factor in the residing social conflict and lack of inter-group communication between communities, displaying a struggle for agency and power within society and the built environment. Grillos avoidance in representing these communities singles out the migrants, reducing their influence and visibility within the political process and development of the city. As a result, the power struggle strengthens the residing social conflicts and builds the competitive fight for agency and belonging within the built environment.

The critical link between the intersection of numerous languages and the resulting development of social conflict within Turin is a point of interesting social fact, a realised and active reality in the site context. Sociological studies facilitate an understanding that conflict is to come into collision or disagreement; be contradictory or in opposition and within the context of Turin, it is understood as social and cultural disagreements due to a lack of communication and understanding between the ethnic communities. Cingolani identifies language within the built environment as a method of enforcing crime and social control. People “approach alleged drug dealers, to draw attention to them with shouts and insults, and to threaten to call the police.”¹⁰ The use of Language in this context highlights one of the many ways it can and is instrumentalised, but most importantly, focusing on the method of its use; shouting as apposed to written, further illustrates the urgent immediacy and frustration of the community in obtaining a voice and the political power struggle for visibility. The outcome has been that some elderly residents have “abandoned the area out of resignation”¹¹ or they have been criticized by the town planners as they “remain closed up in their houses.”¹² Consequently, these social conflicts have an impediment on how cities and buildings are used by other members of the community and are “exacerbated when the object of dispute is public space.”¹³

7 Comune.torino.it. (2018). Urban Barriera di Milano. [online] Available at: <http://www.comune.torino.it/urbanbarriera/> [Accessed 22 Apr. 2018].

8 Özogul, S. (2016). Ferruccio Pastore and Irene Ponzo (eds): Inter-group relations and migrant integration in European cities. *Journal of Housing and the Built Environment*, 32 (3). p.141.

9 Ibid. p.142.

10 Ibid.p.144.

11 Ibid.

12 Ibid.

13 Ibid.p.163.

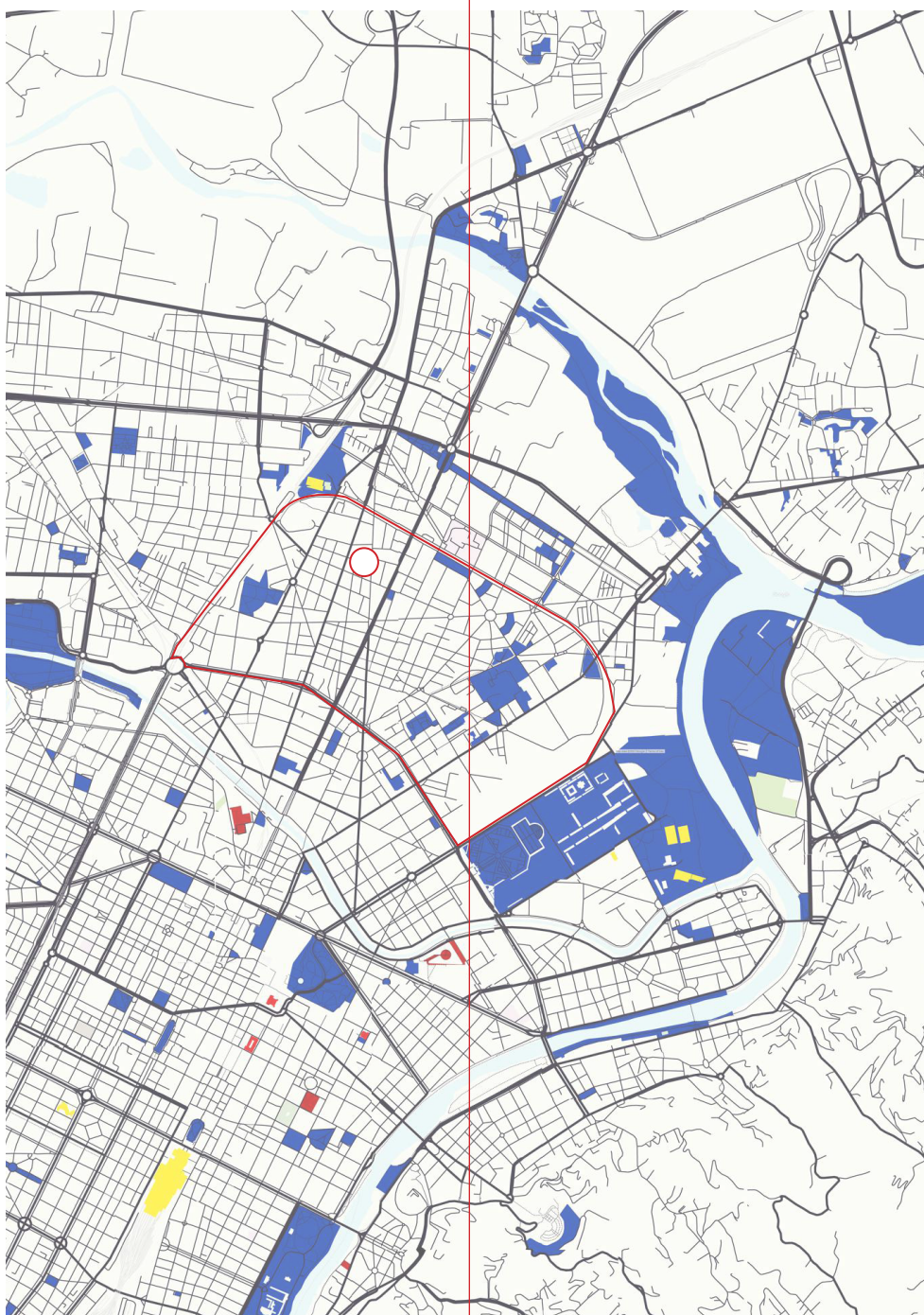


FIG.5 Barriera di Milano and the site location.

I am responding to the urban context of Barriera Di Milano(fig.05), as it is considered by the cultural association of Turin "Officina della Memoria"¹⁴ as the longest standing migrant neighbourhood showing the most flux since the 1800's, as well as the most diverse in relation to languages spoken. The 6 communities within this district are the Moroccans, Albanians, Romanians, Egyptians, Chinese and Italians.¹⁵ More recently, as analysed by Angelo Scotto, a professor in political and social sciences, the economic and political development have "brought inflows of asylum seekers and migrants from diverse regions, including Eastern Europe, sub-Saharan Africa, the Middle East, and Asia."¹⁶ Highlighting a consistent flow of migration that is continuously changing alongside economic demands, similarly to the built environment. The migrants are made visible in the built environment through the multitude of small businesses- mainly commercial units, the cultural market on Piazza Foroni, as well as in individual buildings such as the baths of Via Agliè where the representation of heterogeneity normalised the use of the space, enabling people from different communities to develop an association with a part of the built environment. Consequently, working side by side evident in the art work, signs and working equipment on the walls and within the premise.¹⁷ In addition, language is also subjected to this notion of change through socio-political constructs and by way of becoming a hybrid between 2 or a few, thus, I am interested in understanding the ongoing flux inherent in these communities as they move and adapt.

14 Beraudo.G & Castrovilli .A & Seminara.C (2006) Storia Barriera di Milano, dal 1946, p113-133

15 ibid.

16 Scotto (2018). From Emigration to Asylum Destination, Italy Navigates Shifting Migration Tides. [online] migrationpolicy.org. Available at: <https://www.migrationpolicy.org/article/emigration-asylum-destination-italy-navigates-shifting-migration-tides> [Accessed 22 Apr. 2018].

17 In the basement of this property you can find Baobab Couture of Malik, who is a Senegalese tailor of african clothes, as well as Nella, a Moroccan painter. They work collectively together. This situation has been fostered due to the buildings representation of heterogeneity. - Nuok (2018). Le tante vite del quartiere Barriera di Milano a Torino. [online] available at: <http://www.nuok.it/turin/le-tante-vite-del-quartiere-barriera-di-milano-a-torino/> [Accessed 22 Apr. 2018].



FIG.6: Malik and Nella.

LANGUAGE & ARCHITECTURE

The intention within part I of this thesis is to theoretically investigate 3 avant-garde applications of language that facilitated a change in the approach to socio-political, cultural and aesthetic outcomes within the built environment. Lending a further understanding into these fields of study in order to focus on the 3 key stages of how this question can be broken down through theory and applied within design in part II. Thus, developing through: the Futurists-an avant-garde activation of language into the present day context of Turin, the Oulipian approach to the construction and methodologies required to create a system that applies language to architecture and through Peter Eisenman-assessing the spatial impact and aesthetic qualities of language to the architectural form. These three avant-garde groups have been researched for the design project, therefore the purpose of this thesis is to reflect critically on the theories in relation to the actual practice of design, which has been conducted within design studio in London, UK. The research undertaken for the design project is based on the review of literature pertaining to the three avant-garde groups and applied to an ethnographic and observational survey of the site. Hence, the design investigations are not tested in the real world, on site or with the community's full engagement. Highlighting the limits of the research, as I have only visited the site on one occasion and the active engagement with all members of the community has been minimal due to the language barrier. Consequently, in part II, I will provide a narrative assessment of the design project so to understand the application of the theoretical studies of part I within the process and outcome of architecture.

Language has been defined within this thesis through 19th and 20th century European avant-garde examples as an ephemeral tool with real world impact on political affairs and the resulting societal conceptions of culture, literature and the articulation of chance and control, as well as in architectural design through aesthetics. All of which have an influence in the built environment. This has aroused debate by theorists, philosophers, writers and architects. Pietro Cingolani, along with other researchers in the work of IMISCOE (the largest network on migration and diversity in the world) have identified language through a sociological lens as being able to foster social cohesion in contested urban environments. In socio-political studies, Gunter Berghaus, Johanna Drucker, Wanda Strauven, as well as numerous other professors in art and politics have identified the Futurist movement's use of language, as a catalyst for socio-political change within society as part of a wider assault on culture that encompassed the built environment. In literature, French symbolist circles and writers such as The Oulipo and George Perec, have illustrated languages systematic qualities by applying chance and constraint to a controlled methodology within literature. As a result analyzing how constraining conscious thoughts and human habit could change the way we produce poetry and literature, whilst demonstrating the spatial qualities of language, by manipulating the alphabet using the space on a page. In architectural design and theory, philosophers and architects such as Umberto Eco, Charles Jencks, Chris Abel and Peter Eisenman, have investigated the role of language through ideas regarding identity and representation, as well as repurposing it as a design tool in order to test theories on aesthetics and the outcome of the architectural form. Thus, highlighting some of the vast applications of language as a tool to change the way we design the built environment.

The first avant-garde use of language that I will explore is Futurism, a 20th century movement of political and historical significance to French symbolist circles (writers), avant-garde artistic movements such as Russian Constructivism, Dadaism and Surrealism to list a few, as well as to movements related to architecture and the city through the Situationist International, Neo-Futurism and so on. Led by the poet F. T. Marinetti, Futurism initiated and characterized the outset of the modern movement that would proceed in the following decades through their avant-gardist attack on the self-governing conditions of art in bourgeois society and the disapproval of passiest traditions through the insistence of strict innovation within art and society. Illustrating a rebellion against the loss of Italian grandeur¹⁸ as their ideologies proclaimed war to bridge the political divisions and social gaps by giving people a common aim and in turn restoring Italy's traditional values. We can understand this as an ambition to strengthen the foundations of Italy as traditional values underpinned the emergence of the avant-garde. The point of interest in this thesis is their literary work between the period of 1910 – 1915 because of how they activated language as a tool to propel a social change within art, literature, design and architecture, as well as the considerable influence they exercised. Renato Poggioli emphasizes, "the Futurist moment belongs to all the avant-gardes and not only to the one named for it."¹⁹

The Futurists activated language through their desire to curate change, dynamism and flux. They believed in a "future formed on actions of men in the here and now not in the past"²⁰ which identifies their position on activism as a general rule for their work. Gunter Berghaus explains that Marinetti understands "the role of the intellect and intuition in poetic creation" under the same criteria as Henri Bergsons (a French philosopher) *Élan vital*,²¹ translating into a vital force²² which Bergson identified as a creative force in an organism that is responsible for change, growth and desirable or necessary adaptation. Thus, activism was spread through the Futurists variety theatre as publicly interactive performances, painting and poetry through motion and expression. In doing so Marinetti's wanted to broaden the boundaries of Italian culture by reaching a wide audience (the working class, the literate and illiterate Italians, and have influence globally). Thus, indicating the multitude of ways which language can be activated such as when it is written, spoken, sung, shouted and so on.

18 In 1908 the Austrian seizure of Bosnia-herzegovina and the notion of bringing all departed provinces back into the Italian state proclaimed feelings of national regeneration. These ideologies proclaimed war to bridge the political divisions and social gaps by giving people a common aim and in turn restoring Italy's traditional values.

19 Renato Poggioli, *The Theory of the Avant-Carde*, trans. Gerald Fitzgerald (Cambridge, Mass.: Harvard University Press, 1968), 68.

20 Tisdall, C. and Bozzolla, A. (2010). *Futurism*. London: Thames and Hudson.

21 Berghaus, G. (1996). *Futurism and politics*. Providence, R.I.: Berghahn Books. P.25.

22 Bode, B., Bergson, H. and Mitchell, A. (1912). *Creative Evolution*. *The American Journal of Psychology*, 23(2), p.333.

On the other hand, Language is activated in the current context by M5S through “support of social movement groups”²³ and by the citizens, as a way of regaining control and ownership of “social”²⁴ and “local conflicts”²⁵ within the urban environment. However, the prevailing conflict, lack of social cohesion and communication, specifically the tension between multilingual communities as already demonstrated, identifies language as a vital and shared public tool that is addressed by way of social contact, but is not used as a tool to generate positive architectural design responses for the environment.

Language in architectural design has been widely discussed in relation to aesthetics and the architectural sign, due to being seen as a positive practice of conveying meaning in architecture. Historical examples have illustrated different intentions from poetic evocation to clear objective analysis, but all concerning a care for buildings and how meaning is carried through them within society. The field was initially dominated by Ferdinand de Saussure, a linguist and semiotician, established a general theory of signs as “Semiology.”²⁶ His theories have informed further analysis by numerous architectural thinkers. Umberto Eco through architectural theory has drawn our attention to the individual components of a building, the object that carries the meaning, such as the architectural sign as a column.²⁷ Charles Jencks has analyzed semiotic methods on whole buildings such as the Stirling Olivetti building.²⁸ Geoffrey Broadbent and Mario Gandelsonas have written critically about the way architects such as Peter Eisenman and others, work when designing in relation to semiotic methods.²⁹ Whilst Peter Eisenman has developed theories³⁰, and built architecture³¹ through the use of language, as pure syntax³² based on its own internal logic. I will focus on the work of Eisenman due to his theoretical and physical manifestation of language into architecture, as a way of discussing how to deal with the tangible and intangible characteristics of language within design.

23 Pasquino, G. (2016). Beppe Grillo's Five Star Movement: Organisation, Communication, and Ideology. Edited by Filippo Tronconi. Farnham, U.K.: Ashgate, 2015. Perspectives on Politics, 14(01), p 154.

24 Özogul, S. (2016). Ferruccio Pastore and Irene Ponzio (eds): Inter-group relations and migrant integration in European cities. Journal of Housing and the Built Environment, 32 (3), pp (141?)

25 Pasquino, G. (2016). Beppe Grillo's Five Star Movement: Organisation, Communication, and Ideology. Edited by Filippo Tronconi. Farnham, U.K.: Ashgate, 2015. Perspectives on Politics, 14(01), p 153.
Explain who they are in footnotes

26 Saussure, F., Baskin, W., Meisel, P. and Saussy, H. (2011). Course in general linguistics. New York: Columbia University Press.
Eco is an Italian novelist, literary critic, philosopher and semiotician.

27 ECO, U. (1972). A Componential Analysis of the Architectural Sign /Column/. Semiotica, 5(2).

28 Jencks is a cultural theorist and architectural historian.

Jencks, C (1970) A semantic analysis of Stirlings Olivetti Centre Wing, architectural association quarterly.

29 Gandelsonas is an architect and theorist who specialises in urbanism and semiotics. He has been a big critique of Peter Eisenman.
Gandelsonas, M & Morton, D (1972) on reading architecture, Progressive Architecture.

30 Peter Eisenman is an american architect. He is known for his theory, talks and designs in relation to architecture.

Eisenman, P. (2006). The formal basis of modern architecture. Baden: Müller.

31 Web: Eisenmanarchitects.com. (2018). ENTRY. [online] Available at: <http://www.eisenmanarchitects.com> [Accessed 23 Apr. 2018].

32 By syntax I am referring to Eisenman's concern for the architectural system. The arrangement and structure of architectural components like the syntax evident in language. By this I mean the arrangement of words and phrases that create a sentence.

PART I: THE 3 AVANT-GARDE'S



FIG.7: Futurist poster for Zang Thumb Thumb.

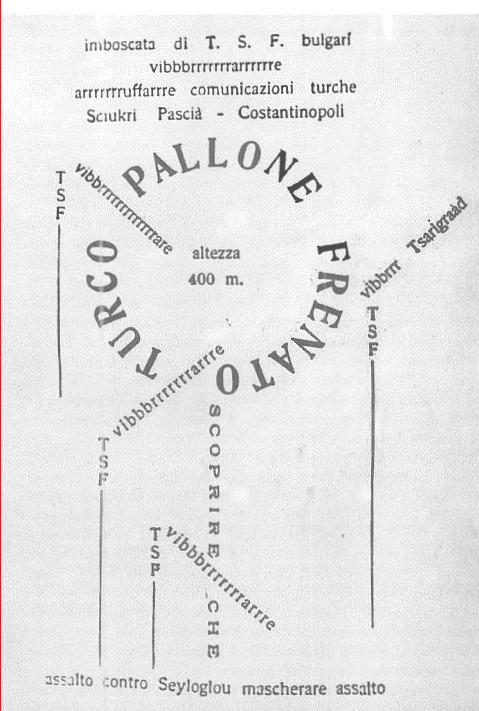


FIG.8: Play with the relation of elements to depict battle.

	Battle Weight + Stench
	Noontide three-quarters flutes groans summer-heat tumbtumb alarm Gargaresch crashing crackling march Jingling rucksacks rifles hoofs nails cannon manes wheels cases Jews unleavened bread oil-bread dirges trading-shacks whiffs polishing rheum stench cinnamon mold ebb and flow pepper scuffle filth swirling orange-trees-in-flower filigree poverty dice chessmen cards
Double Noun	jasmine + nutmeg + rose arabesque mosaic carrion stings shuf- fling machine guns = shingle + undertow +
Mathematical Signs	frogs Jingling rucksack rifles cannon metals atmosphere = lead + lava + 300 stinks + 50 sweet-smells paving mattress debris horseshit car- rion flickflack piling up camels donkeys tumb-tuum sewer
Adjectives:	silvermakers-Souk labyrinth silk blue galabieh crimson orange trees moucharabieh archways clambering over roadfork small-square swarming burnous swarming dripping sweat pouring polychrome wrapping up protrusions crevices burrows rubble demolition carboic-acid chalk liceilth Jangling rucksacks tatatatata hoofs
Sparsingly used-regulate tempo	nails cannon cases lashings uniform-cloth lamb-stench cul-de-sac leftward funnel rightward crossroads light-and-shade Turkish-bath frying moss jonquils orange-flower nausea rose-oil-snare ammonia claws excrement bites dog + 1,000 flies fruits dried fruits carobs chickpeas pistachios almonds banana-diets date-palms tumbtumb
Onomatopoesia	
Multilinear lyricism	
Verb:	
setting noun in motion	

FIG.9 Visual materiality of words on the space of a page.

THE FUTURIST MOVEMENT

Futurism utilized language as a political tool illustrating its ability to empower. They believed war would strengthen Italy, thus their activation of language was deeply rooted in analogies of war evident through Marinetti's work *Zang Thumb Thumb*(fig.7). Here the ephemeral and sensory qualities of language were illustrated through free expression, as Johanna Drucker, a visual theorist and cultural critic explains, Futurists "play up the relations of elements within the page as a field, in turn used to depict the field of battle"³³(fig.8). Critically, Marinetti's activation of language illustrates an emphasis on the visual materiality of words by identifying different values and contrasts in language to explain real world spatial events of battle. The values and contrasts can be identified through Marinetti's modifications to words, the space of words on a page, the play with syntax and semantics of language (illustrated in two manifesto's published in 1912³⁴ and 1913³⁵), which developed spatial and architectural qualities through the manipulation of scale, order, structure, motion and relationships. Thus, In the Futurists liberated literature, punctuation, determiners and pronouns were abolished. The pauses in tempo created by comma's and full stops were replaced by mathematical signs initiating movement and speed.³⁶ Adjectives were used in-between brackets only to regulate the tempo of a text or to cut a word in half.³⁷ Double nouns were shortened.³⁸ The pictorial sensations within poetry changed scale and onomatopoeia elevated sound from the ephemeral into a more prominent visual field. Thus the visual materiality of the words can be identified as languages relation to space and manipulation of space(fig.9). Portraying how language was activated spatially and why language was activated politically. Therefore, the point of interest within this thesis is to utilize how the Futurists activated language spatially as a way of changing the events of the time and how this activation of language can be applied in the present context of Turin to empower the communities in the built environment.

The Futurists were interested in creating the ugly in the aesthetics of their literature through the imagination and by using analogy. Analogy was a commonplace reference at the time by Charles Pierre Baudelaire, a French poet, as he states "The imagination is an almost divine faculty which perceives at once, quite without resort to philosophic methods, the intimate and secret connection between things, correspondences, and analogies"³⁹ as well as by Henri Bergson, a philosopher and Stéphane Mallarmé, a symbolist poet, who were of great influence to Marinetti's literature and poetry. By granting the free play of the imagination, the notion of disengagement of objects from rational control is characterised, leading to two ideas that can be explored through language to change the way we design.

33 Drucker, J. (1994). *The visible word*. Chicago: The University of Chicago Press. P.131.

34 Berghaus, G & Thompson, D (2006) *Critical Writing/ F.T. Marinetti*. New York, Farrar, Straus, and Giroux. p.107.

35 Berghaus, G & Thompson, D (2006) *Critical Writing/ F.T. Marinetti*. New York, Farrar, Straus, and Giroux. p.120.

36 Drucker, J. (1994). *The visible word*. Chicago: The University of Chicago Press. P.120.

37 Berghaus, G & Thompson, D (2006) *Critical Writing/ F.T. Marinetti*. New York, Farrar, Straus, and Giroux. p.127.

38 Berghaus, G. (2009). *Futurism and the technological imagination*. P.201-202.

39 Kelley, D (1975) *Salon de 1846/ Baudelaire / texte établi et présenté par David Kelley, Charles Baudelaire*. Oxford: Clarendon Press.

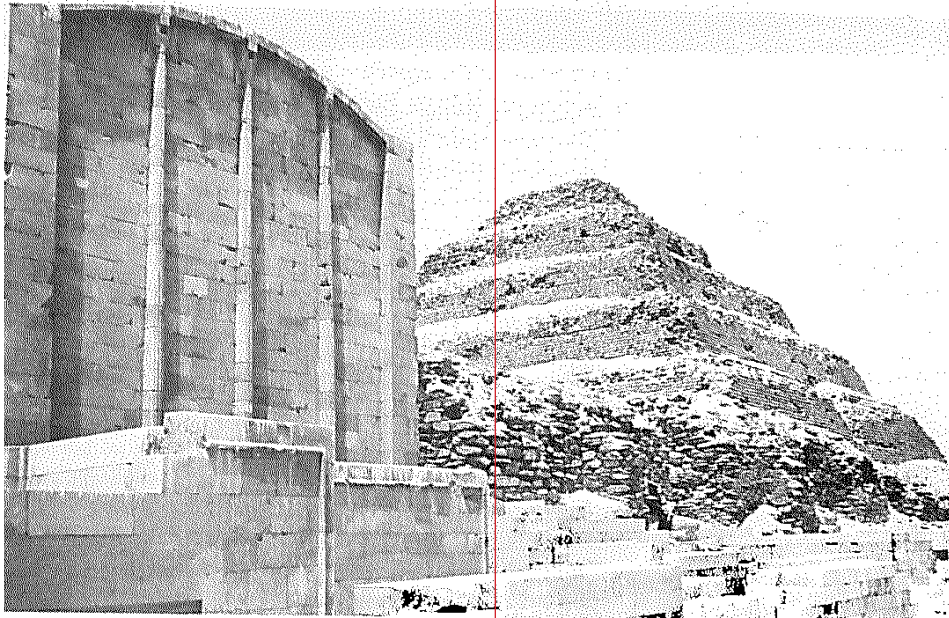


FIG.10: Imhotep (c.2,800BC) Step Pyramid complex at Sakkara



FIG.11: Frank Lloyd Wright derived the roof form for the chapel from the shape of his own hands.

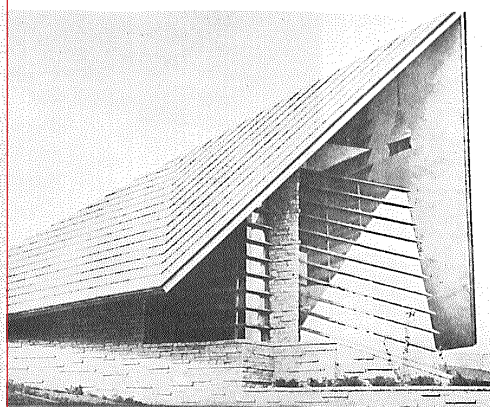


FIG.12: Roof of Madison, Winsconsin, chapel.

The former, the free play of imagination, portrays the use of the imagination and its secret connection as deeply rooted in analogical design methodologies - a mechanism that is related to the creative development of architecture.⁴⁰ Analogies within the built environment are evident as far back as Imhotep (c.2,800 BC) in the step pyramid complex at Sakkara as he drew visual analogies with existing brick tomb-forms for the building form(fig.10), to being derived through painting and sculptures in 20th century architecture by Frank Lloyd wright(fig.11-12) in the church at Madison(1950), to Le Corbusier crab shell roof at Ronchamp(1951-1955).⁴¹ Thus, by creatively considering the synonyms of the word ugly (as Marinetti wanted to create the ugly), as an analogy, we can notice the definitions as misshapen, uncommonly, unsightly and so on, which one could argue are the words derived from an architectural aesthetic of unpleasant difference. This notion of unpleasant difference elucidates to a common perception between the 6 conflicted communities within Turin at present. Therefore, could the secret and analogical connection be utilised through the futurists activation of language within the design development of language into architectural form, so to change the way we design architecture for these communities and conflicted urban environment? How can we give authorship to difference in these communities by manifesting the intangible qualities of the activated Futurist language into tangible architectural representations?

The later, disengagement of object from rational control, introduces the notion of indeterminacy and chance as illustrated by Bergeson "chance in a relative notion, which simply objectifies the mental state of someone who expected one of the two types of order and instead encounters the other."⁴²In the futurist's literature, chance is activated in language as it is coined together through dynamism and by way of playing with the spatial qualities of words on a page. Alison James, a Professor of French Literature, conveys that even if chance is not seen as an objective force, it "names a crucial feature of the way in which human beings subjectively experience and interpret the world. Chance implies the absence of human agency."⁴³ Therefore, I will investigate how chance may be associated and used creatively for control, authorship and with the opening of a space for invention within the process of developing architectural form.

40 Analogical design methodologies is identified by Geoffery Broadbent as a drawing of analogies that are usually visual in order to solve design problems. We can understand this through the example of a child that extends their vocabulary through drawing analogies with existing use of words. Therefore, cat is cats and so dog becomes dogs due to the analogy and assumption drawn- Broadbent. G & Bunt. R & Jencks. C (1980) Signs, Symbols and Architecture. Bath: The Pitman Press. P.142.

41 Ibid. 140-143.

42 Bergson, H. and Mitchell, A. (1944). Creative evolution. New York: [Random House]. P.254.

43 James, A. (2009). Constraining chance. Evanston, Ill.: Northwestern University Press. P.15.

Moreover, it is important to highlight that their methods of activating language was for political means of glorifying war, nationalism, “Love of violence and professed belief in the virtue of destruction”⁴⁴ which is identified by Anne Bowler, a professor of sociology as a “in direct connection with the rise of Italian Fascism.”⁴⁵ Therefore, it is important to understand the position of these charged political ideas within this thesis, in order to determine whether the placement of their linguistic methods to the current context of Turin, is appropriate. Although Futurism was part of an artistic avant-garde, their politics were fascist. This is problematic as Fascism was principally against immigration, which is a contested subject in the current context of Italy due to the rising number of migrants and neo-fascist groups coupled with what Nicholas Farrell explains as Italys “permanent economic recession.”⁴⁶ Moreover, Lorenzo Tondo, indicates that the National Association of Italian Partisans⁴⁷ has identified 500 internet sites that praise fascism in Italy that “spread hatred among people, especially against migrants.”⁴⁸ Therefore, by incorporating the futurist methods of activating language, the design project and outcome could be seen as supporting neo-fascist groups, due to the affiliation in charged political ideologies that advocate violence and hatred towards the migrant communities. This understanding can have damaging affects to these communities as it further reduces their visibility and power dynamic in the built environment.

However, although the futurist advocated violence through language they also highlighted a new sensibility towards art and in particular through literature that was rooted in creating positive cultural progress. By positive progress I am denoting to the confident and expressive works that followed by other avant-garde artists, architects, writer and thinkers that approached artistic practice and engagement with the built environment in a way that produced and expanded these fields of knowledge. An example of this can be identified through the Situationist International and the theory of the “Dérive.”⁴⁸ They were inspired by the Futurists and through free expression and active engagement inspired people to interact with the built environment. Therefore, by not condemning their playful approach to reforming language, we can reconsider languages role in initiating a positive change within design for a multilingual context. Thus, the intention of appropriating the Futurists methods in the context of this thesis as not rooted in advocating violence, but in interrogating how their methods of activating language can be recast to changing the way we design positive urban environments. By positive I am denoting to language being used in the current context of Turin to develop an architectural outcome that celebrates the difference of the residing communities and empowers their visibility within the built environment.

44 Futurism: caroline tisdall & angelo bozzolla, pg.17

45 Bowler, A. (1991). Politics as art. Theory and Society, 20(6), p.763

46 Nicolas Farrell is a journalist.

Farrell, N. (2018). Italians aren't fascists. They're angry about immigration | The Spectator. [online] The Spectator. Available at: <https://www.spectator.co.uk/2018/03/italians-arent-fascists-theyre-angry-about-immigration/> [Accessed 23 Apr. 2018].

47 Lorenzo tondo is a journalist.

Tondo, L. (2018). Attacks on immigrants highlight rise of fascist groups in Italy. [online] the Guardian. Available at: <https://www.theguardian.com/world/2018/feb/06/attacks-on-immigrants-highlight-rise-of-fascist-groups-in-italy> [Accessed 23 Apr. 2018].

48 Sadler, S. (2001). The situationist city. Cambridge (Mass.): The MIT Press.p.11

THE OULIPO

In the previous section I analyzed the Futurist movement in terms of how they activated language and by doing so what they wanted to achieve. Identifying how they believed that imagination and analogy would create the ugly in their aesthetics, the engagement with chance and constraints within their manipulation of language, the relationship of these ideas to the built environment and the resulting affects on the empowerment of the migrant communities within Turin. Although they illustrated that language can be activated and empowering both politically and spatially, they did not appropriate any authorship to language or the communities. Thus, retaining the authorial control of the outcome and in turn the power of the activated language. Therefore I look to a later movement, The Oulipo to explore how they probe the use of constraints and rule-bound systems to develop an avant-garde approach to literature, as a result not only giving authorship to language to have an active role in representing the migrant communities, but also provoking the notion of chance and indeterminacy within their methodology. The importance of incorporating chance and indeterminacy within the process of design goes hand in hand with the loss of control of habitual design decisions from architects. These are vital in developing architectural outcomes that relinquish the authorship of the architect to achieve a co-authored outcome with the community.

The point of interest within this thesis is how this approach develops a methodology that enables human habit to be broken by giving design agency to the system, that James notes as a “tension in Oulipian poetics between the exploration of potentiality- which often involves opening up the text to the possibilities of the unexpected and unintended”⁴⁹ and the groups lack of control of the writing process. This identification of chance as “an absence of authorial intention”⁵⁰ highlights a dismissal of the producers control over the process and the authorship given to the linguistic system to be creative in producing the outcome. This is important to architecture and the built environment, as the architect makes most of the design decisions based on what they know, think or believe the outcome to be through their experience with design. However, by giving authorship to the different languages within the site context of Turin, the power dynamic is altered as the decision of the design outcomes is reduced from the architect and given to the communities. Allowing these groups of people that make up the urban environment to have a participatory role in its development, that is in the built environments change and flux in time. As a result, investigating the extent of authorship given to the architect and the co-authorship practiced with the communities. This distribution of authorship is particularly important in case of Barriera di Milano, as it will begin to appease the power struggle evident on site whilst increasing their visibility in the urban environment. Therefore, I will investigate how implementing the Oulipian methodology within the design process can give authorship to the architectural outcome, in order to turn the multiple languages in Turin, the 6 communities, into an architectural representation. Consequently, in part II I will explore, by way of investigating this understanding in design how one methodology can be applied to the 6 communities in the same way but achieve difference in aesthetics. The mechanical automatism given to the literary rule N+7 has a clear intention, as James highlights by

49 James, A. (2009). Constraining chance. Evanston, Ill.: Northwestern University Press. p.119

50 Ibid. p.122

the reduction of “the role of the author to a minimum: the choice of the text to be transformed and of the dictionary to be used for the transformation.”⁵¹ The system works by replacing each noun, with the seventh down that follows in the dictionary. An example of this can be identified through an original text In the beginning God created the heaven and the earth and the text after the rule application In the bench Governor created the help and the economist. Demonstrating the mechanical properties of language that allows it to produce meaning independently, as apposed to by human intention. By transferring this methodology to the role of the designer/architect, we can understand that it will facilitate not only the loss of control and break of habit from their way of design, but also a reduction in authorship, now given to the language and rule systems. Thus, by re-appropriating authorship to language, it is utilized as a tool for the production of architectural form.

However, the substitutive procedure of N+7 respects the syntactic structure of the original sentence, revealing the limitations of syntax in the production of meaning. This drawback is rooted in the rules reliance on values of Chomsky’s linguistic theory,⁵² which advocates a creative play with language that maintains the coherent structure of syntax. Although the role of chance is removed from the authors control, it limits the outcome of chance as it is constrained within traditional linguistic grammar- a clear juxtaposition to the Futurists objective of liberating language. Yeoryia Manolopoulou in the Architecture of Chance clarifies that “Chance contributes to design because it participates in the making of the imagination and of the event of thought itself.”⁵³ Lending an understanding that to allow language to generate a true representation of each community and give complete authorship to its outcome we must appropriate the full use of chance within the system and not stifle it by maintaining traditional forms of syntax. As a result, liberating language within the production of architectural form to manifest its own aesthetics. Manolopoulou explains that in the works of architects such as Lina Bo Bardi, Robert Venturi, Bernard Tschumi, Cedric Price, Coup Himmelb(l)au we can see they have “engaged with chance quietly, and in doing so have profoundly reconsidered issues of order, co-authorship and the creative potential of inhabitation and the environment.”⁵⁴ Highlighting the importance of the loss of control as it gives more authorship to the communities, as it is more contingent on their participation and input in developing the outcome.

51 James, A. (2009). Constraining chance. Evanston, Ill.: Northwestern University Press. p.119.

52 Chomsky, N (1957) Syntactic structures, the hague, mouton.

53 Manolopoulou, Y. (2013). Architectures of Chance. p.220.

54 Ibid.

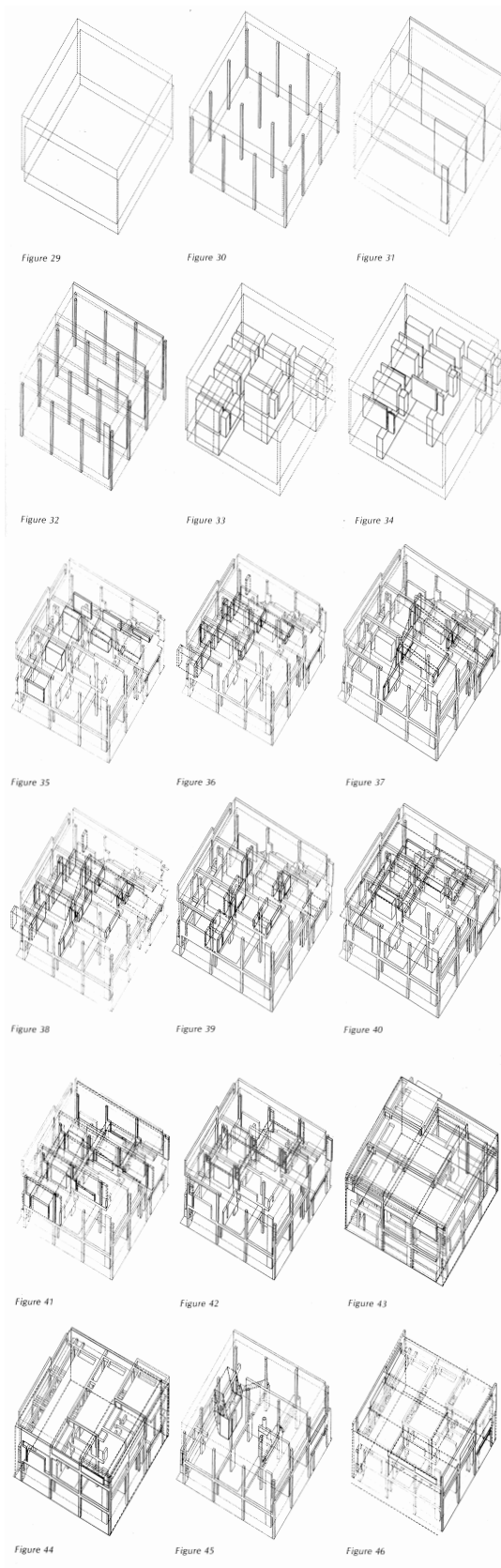


FIG.13 The Process of Layering.

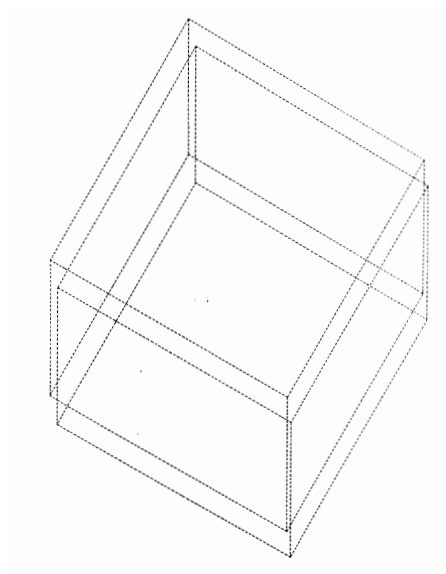


FIG.16 The reference point (cube in House I & House II).

PETER EISENMAN

In the two previous avant-garde applications of language I have investigated how language can be activated spatially in order to understand the means by which it can change the events of the time, as well as appropriate authorship to language by way of enabling the roles of chance and constraint within a rule-bound system. Consequently, they establish an understanding into how language can be activated and the methodology that is required to empower design authorship for the 6 communities on site.

However, they have not conveyed how the process of creating tangible architecture from intangible beginnings can convey an aesthetic representation of difference that gives visibility to the different communities through physical architectural form. Therefore, I look to the work of Peter Eisenman, an American architect, who is renowned for his theoretical and physical manifestations of language into architecture, as he interrogates the role of aesthetics and language in the creation or reduction of meaning. He is recognized for works considered high modernist⁵⁵ and deconstructivist.⁵⁶ The point of interest within this thesis is to explore if his approach to establishing language to the aesthetic outcome are appropriate for the communities of Barriera di Milano.

In the 20th century, Peter Eisenman explored the syntactical relationship of words between space and architectural representation, developing a system of formalism. Evident in the writing of Mario Gandelsonas, a theorist who specializes in urbanism and semiotics, as he explains that Eisenman started to employ the ideological methods of language to architecture in order to solve technical problems in the formation of space, thus appropriating new ideas whilst preserving social systems by not changing the social structures of power and knowledge⁵⁷. Therefore, we can understand that Eisenman illustrates architectures need for “formal ordering”⁵⁸ whereas language conveys formal grammar, architecture must have its own syntactical and grammatical relationship. Amir Djalali, an architectural theorist explains that by developing a system of syntactical relations, Eisenman empties the meaning of architectural components so that “It is not clear which columns bear the floors, or if the house is structured on walls or columns. Some beams run from column to column (as they are supposed to do), but they are isolated and clearly do not have any load-bearing function.”⁵⁹. Thus, by implementing methods such as “layering”⁶⁰ the architectural sign(fig.13), the column, the window and so on, establishes a grammatical order which facilitates the architecture to be read backwards and understood in terms of syntax, which is the study of rules for the construction of grammatical sentences.

An example of this system of layering can be identified in House I⁶¹(fig.14) and House II⁶²(fig.15) where

55 high modernist is a movement that is a form of modernity which is characterized by a confidence towards the use of science and technology as a means to create a change in the social and natural world. The movement was prevalent in the late 1950's and 1960's.- Artandpopularculture.com. (2018). High modernism- The Art and Popular Culture Encyclopedia. [online] Available at: http://www.artandpopularculture.com/High_modernism [Accessed 23 Apr. 2018].

56 Deconstructivist is an architectural style that is influenced by deconstruction which encourages a freedom and manifesting complexity in a building as apposed to focusing on the functional concerns such as a spacing grid or right angles. Designcurial.com. (2018). Deconstructivist architecture – eight iconic buildings- DesignCurial. [online] Available at: <http://www.designcurial.com/news/deconstructivist-architecture-eight-iconic-buildings-4503184/> [Accessed 23 Apr. 2018].

57 Hays. M. (1998) *Architecture Theory Since 1968*. Linguistics in Architecture. Cambridge, Mass: The MIT Press. p. 112–122.

58 Graafland. A. (2007) *Peter Eisenman: The Formal Basis of Modern Architecture*. Trans-disciplinary. P93-96

59 Djalali. A (2017) Eisenman beyond Eisenman: language and architecture revisited, *The Journal of Architecture*, 22:8 1287-1298

Broadbent. G & Bunt. R & Jencks. C (1980) *Signs, Symbols and Architecture*. Bath: The Pitman Press. P.266.

60 Layering has been utilized due to being Eisenmans central application of language to architectural form. Eisenmanarchitects.com. (2018). HOUSE I. [online] Available at: <http://www.eisenmanarchitects.com/house-i.html> [Accessed 23 Apr. 2018].

61 Eisenmanarchitects.com. (2018). HOUSE II. [online] Available at: <http://www.eisenmanarchitects.com/house-ii.html> [Accessed 23 Apr. 2018].

FIG.14 House I

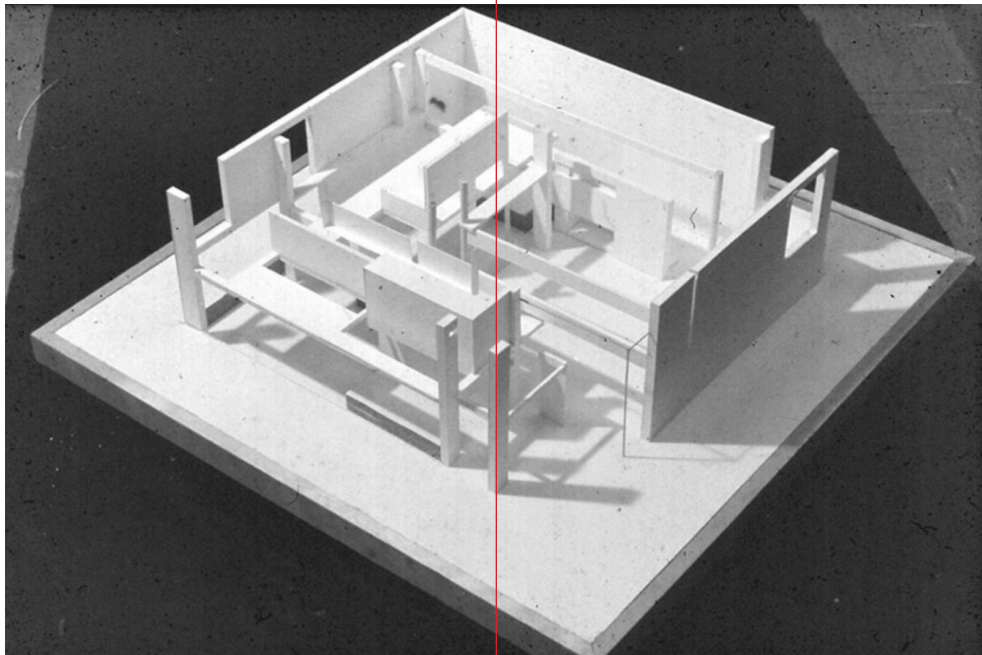
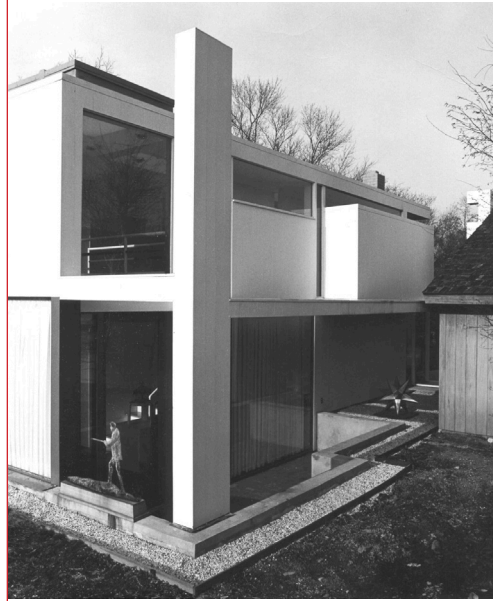
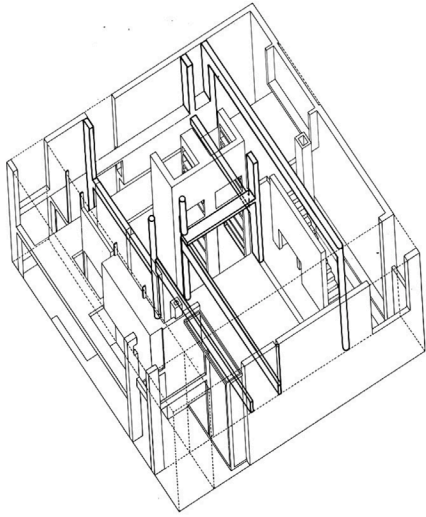
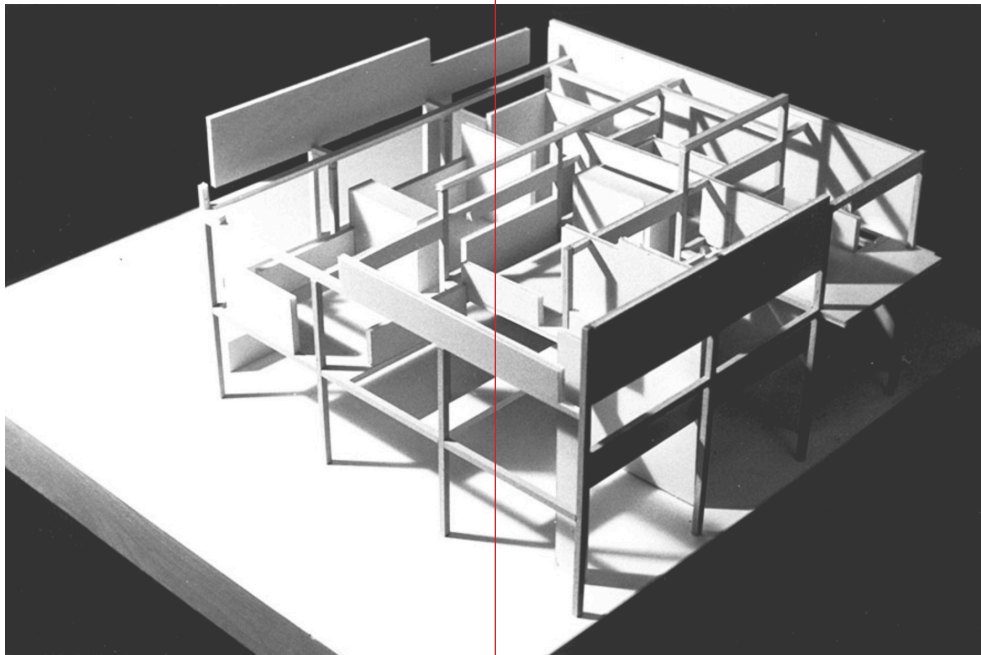
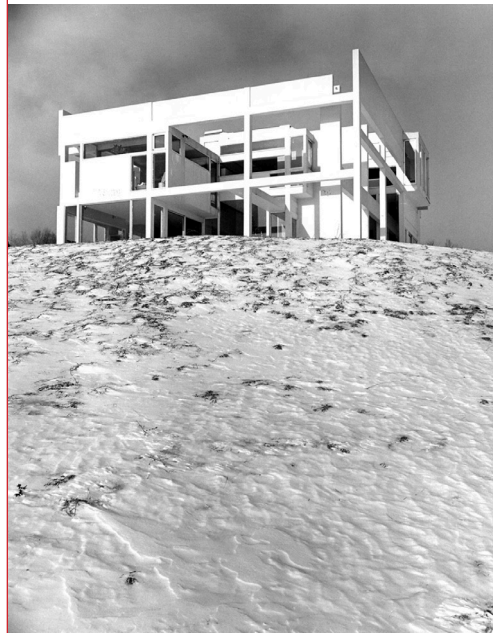
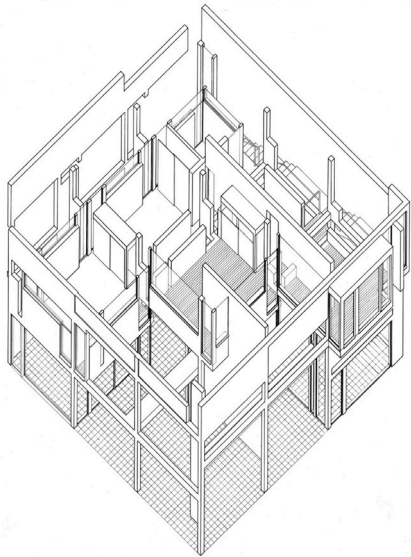


FIG.15 House II



the same syntactical application of language (layering through a grid split system) is applied to the process of developing the architectural form. Eisenman applies a grid to the site, where he then decides its divisions in creating the planes, which then become architectural components (fig.13). Evidently the aesthetic outcome is very similar, which is desirable in the case of Eisenman's work as it portrays the continuity of the linguistic application in different projects. However, within the multilingual context in Turin this aesthetic outcome is rendered useless. This is due to each migrant community needing to be made visible in the urban environment. As a result, the aesthetic outcome for each community needs to portray a distinct difference from one another making visible through the architectural form the multiple languages and communities within the site context. Therefore, by developing a method that applies the same system, but achieves an aesthetic representation of difference will empower the cultural value of the migrant communities.

In addition, Eisenman portrays how each time he develops architecture from language he begins from the same reference point. In house I and II this can be identified as a cube (fig.16). The linguistic transformations are then carried out on this form. Gandelsonas explains that "the result is the assembling of complex relations into an ordered series generating from a given plane or point of reference, either actual or conceptual."⁶³ This method in Eisenman's outcome further affirms the production of a similar aesthetic outcome. However, within the context of the multilingual communities is beneficial as by applying the rule-bound system to the same starting position the outcome is fair. By fair I am denoting the lack of the architect's interference within establishing the power dynamic of the cultural aesthetic. Consequently, this understanding relates to a multilingual context as it empowers the communities by way of assigning authorship to aesthetic outcome. Therefore each community's cultural value is determined through a form that is different and unique.

Critically, the ambition of Eisenman's systems to allow an understanding of the architectural aesthetics in any context is problematic as it results in complex architectural forms, difficult for a trained architect to decipher without reading into his theories let alone an individual who is not trained in the field. However, the development of architecture that has derived from a true autonomous application of its own syntactical relations is beneficial and an interesting tool that will need to be explored through design in section 2, as it correlates with the system-based approach by the Oulipo, lending a sense of authorship to the architectural form, thus the communities on site. Nonetheless, Eisenman has failed in really achieving his syntactical goals as Mark David Major and Nicholas Sarris, Professors of Architecture and Urban Design, have identified his application of syntax as not an analytical design process, due to his influence and manipulation in the aesthetic outcome by making the design decisions. They identify that the grid he has integrated and "the square proportions and metric distances in how the grid is subdivided are mutable, though in some cases there is consistency from floor to floor."⁶⁴ With this in light, we are able to critically link these systems to a more analogical application, suggesting that in failing to give full autonomy to the designed system, Eisenman has developed notions of conceptual ambiguity closely correlated to practices of Modern Art (associated with art that abandons traditional methods of practice in a spirit of experimentation), as much of 20th century architecture drew from paintings and sculptures, thus as depicted by Gandelsonas "creating a dialectic between what exists and what is implied."⁶⁵

63 Broadbent. G & Bunt. R & Jencks. C (1980) *Signs, Symbols and Architecture*. Bath: The Pitman Press. P.266.

64 Major. M. D & Sarris. N (2000) *Cloak-and-dagger theory: manifestations of the mundane in the space of eight Peter Eisenman houses*. The Bartlett School of Graduate Studies. p.79.

65 Broadbent. G & Bunt. R & Jencks. C (1980) *Signs, Symbols and Architecture*. Bath: The Pitman Press. P.269.

CONCLUSION

From the analysis of the 3 Avant-garde applications of language in relation to the site conditions, I am able to determine that in order for language to be the sole driver of the architectural outcome and not be developed from conceptual ambiguity, the system (methodology) by which it transforms must not be able to allow the architect to make design decisions. Therefore, by incorporating the Futurist activated understanding of language and applying this knowledge to the multilingual context of Turin, I am able to investigate how this could empower the 6 communities, giving them visibility within the built environment. In addition, the Oulipo have illustrated that by incorporating the roles of chance and constraint within a system that must adhere to its own rule-bound process, I am able to explore how authorship can be given to the multiple languages on site. Consequently, by way of applying the same rule system to the same reference position I will be able to analyze how an application that gives an equal power dynamic to the languages can produce an aesthetic outcome of difference in the architectural form that is representative of the 6 communities, through which each community is able to communicate their cultural value. Moreover, these research conclusions will be tested and appropriated in part II within the process of design, where I will explore the outcomes within this thesis through a narrative assessment.

PART II: TESTING LANGUAGE

INTRODUCTION

The intention within this part of this thesis is to give a narrative assessment of my design work. Based on an interest in language as a divisive, but potentially unifying element of city development in Turin, I undertook a study of how language has been historically instrumentalised by 3 avant-garde references to address conditions of difference in the urban environment. These have been identified in section 1 through the Futurists, Oulipo and Eisenman from which I have evolved a number of rules of my own in order to appropriate their theories within an architectural design outcome.

The site research in the introduction of this thesis has facilitated an understanding that there is a scarcity in free public spaces and diversity in terms of the range of ethnicities and languages spoken. However, a lack of inter-group communication is resulting in social cohesion between members of the communities. Therefore, my aim is to design a library, a free space for the community, which encompasses the multilingual site context through its architectural form. As a result, I will assess the outcome of the research and how each experiment in conjunction with the design intentions (in the conclusion of part I) has manifested spatially. Consequently, I will explore how the multiple languages on site can be developed into a formal architectural representation of difference, in turn, examining how to develop the same rule-bound system that encompasses the role of chance and constraint in its application of language to each community. Finally, I will determine through analysis whether the design outcomes are giving authorship, empowering and illustrating the communities cultural value.

SITE CONTEXT

Turin is located in northern Italy and a European crossroad for trade, industry and commerce, whilst also part of the industrial triangle between Genoa and Milan. The city is divided into 10 municipal districts of which Barriera Di Milano has been identified as the site location, due to its longstanding history with the flux of migration (fig.17) and the prevailing issues with a lack of inter-group communication and social cohesion between 1st, 2nd and 3rd generation migrants. Located in district 6 (of 10) 4km north of the city center and closer to the periphery. The “first immigrants were the peasants from the provinces of Turin and the rest of piedmont”⁶⁶ who migrated between 1871-1891 due to an agricultural crisis where people moved for jobs and better living conditions. In order to determine the specific site location in Barriera Di Milano, I studied the flow of migration from its inauguration identifying the most densely occupied street with the most social cohesion issues, Corso Vercelli.

Characterized by cheap building developments of between 5-10 stories, densely occupied with “a progressive physical deterioration both in the private building heritage and in the public space.”⁶⁷ The lack of maintenance is because of the economic crisis and “the crisis of Fordism which left more than six million square meters of dismissed industrial areas”⁶⁸ to be redeveloped, resulting in a managed decline by local governments of the existing built environment. The architecture is of a classical or traditional aesthetic, built between the mid 1850’s to present, of which most have balconies. Most properties have not been provided with solar shading curtains as part of the architecture, thus the residents have purchased fabric to cover their balconies that appear to have been installed for numerous years due to their weathered and dirty conditions. This addition to the building façade appears more frequently where there are overlooking balconies suggesting the need for the residents to restrict visibility into their property due to the lack of privacy and space, where by the flat is extended through the balcony to the fabric boundary. Thus, the fabric is symbolic of a social barrier between neighbors, indicating a sense of social divide and unwillingness to be inclusive of a community, as well as the poverty in the area due to the cheap, often torn self-made and installed extensions of the building facade (fig.18-19).

66 Beraudo.G & Castrovilli .A & Seminara.C (2006) Storia Barriedraella di Milano, dal 1946.

67 English version (Urban Barriera). (2018). Comune.torino.it. [online] Available at: <http://www.comune.torino.it/urbanbarriera/en/index.shtml> [Accessed 22 Apr. 2018].

68 City of Turin - Urban Regeneration. (2018). Comune.torino.it. [online] Available at: <http://www.comune.torino.it/rigenerazioneurbana/en/> [Accessed 22 Apr. 2018].



FIG.18 Fabric facade.



FIG.19 Fabric facade.



FIG.20: Language study around the site location.

I undertook some first hand research by visiting the multitudes of small independent businesses and approaching people in the street. I tried to get an understanding of where people were from according to their heritage and what languages they spoke. This proved difficult due to the language barrier and in some cases a sense of hostility towards the questions posed, as my presence and survey were in most instances unwelcome, viewed as a barrage of their space and cultural value as some people were unwilling to share and communicate. This resulted in a reduced survey of the site conditions. However, (fig.20) the results illustrate 6 ethnographic communities within a close proximity to the site: Italians, Romanians, Albanians, Chinese, Moroccans and Peruvians. The objective was to gain first hand site context and exposure in order to quantify and better understand the ethnographic difference, in order to mobilize the site data towards design-centered outcomes.

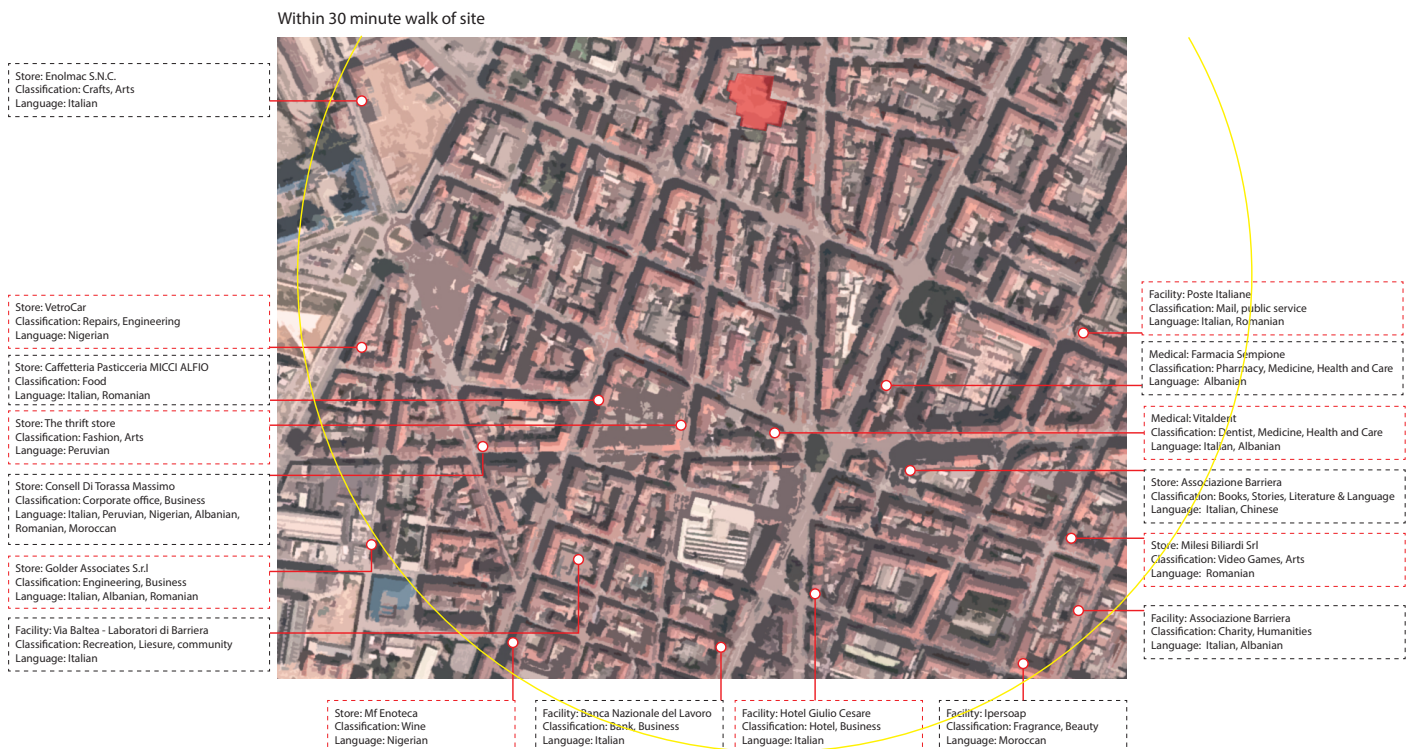


FIG.20: Language study around the site location.

METHODOLOGY

The design experiments have been split into 2 stages, each obtaining 2 tests that correlate with the theoretical research in section 1. Stage 1 has two tests as firstly, it is investigating the impact of activated language to architecture (Futurists). Secondly, it is determining a system of applying the linguistic rules to the languages (communities) on site so to allow the languages to create architectural form (Oulipo). Stage 2 also illustrates 2 tests because it is exploring how to appropriate Eisenmans theory of layering to create a form of difference. Test A explores the first example illustrated in the evaluation of his theory, that is layering through a grid split system. Whilst test B examines the second example in the research evaluation, beginning from the same reference point. In some instances an in depth explanation of the process has been provided in their associated footnotes.

Stage 1: Rules

The 5 linguistic rules that I use throughout the process of applying language to test the development architectural form are initially derived from the futurists understanding of activating language, which are developed into a version of my own. The two tests explore their capability in changing the way we design through their impact on architecture and the site through a rule-bound system, illustrating how language can activate change and give authorship to the communities.

Test A: Explores how the rules can be applied to a generic architectural space in order to understand the impact of language to common architectural parts such as step, wall, room.

Test B: Tests how the linguistic rules can be applied to the different languages through the most popular book titles of each community on site, thus appropriating authorship.

Stage 2: Architectural components

Explores how I can develop the architectural form by establishing an architectural component. This can be understood as a component derived from the site context that will be altered by the linguistic rules, which creating the architectural form for each community.

Test A: Tests the use of a grid as an architectural component. The linguistic rules occupy different nodal points on this grid and create form through the lines drawn.

Test B: Tests the use of a grasshopper agent (This can be understood as a command that enforces a different visual aesthetic in the end architectural form) and the site volume as the architectural components.

I undertook contextual research of the Futurist approach of liberating language, highlighting key rules

STAGE I: RULES

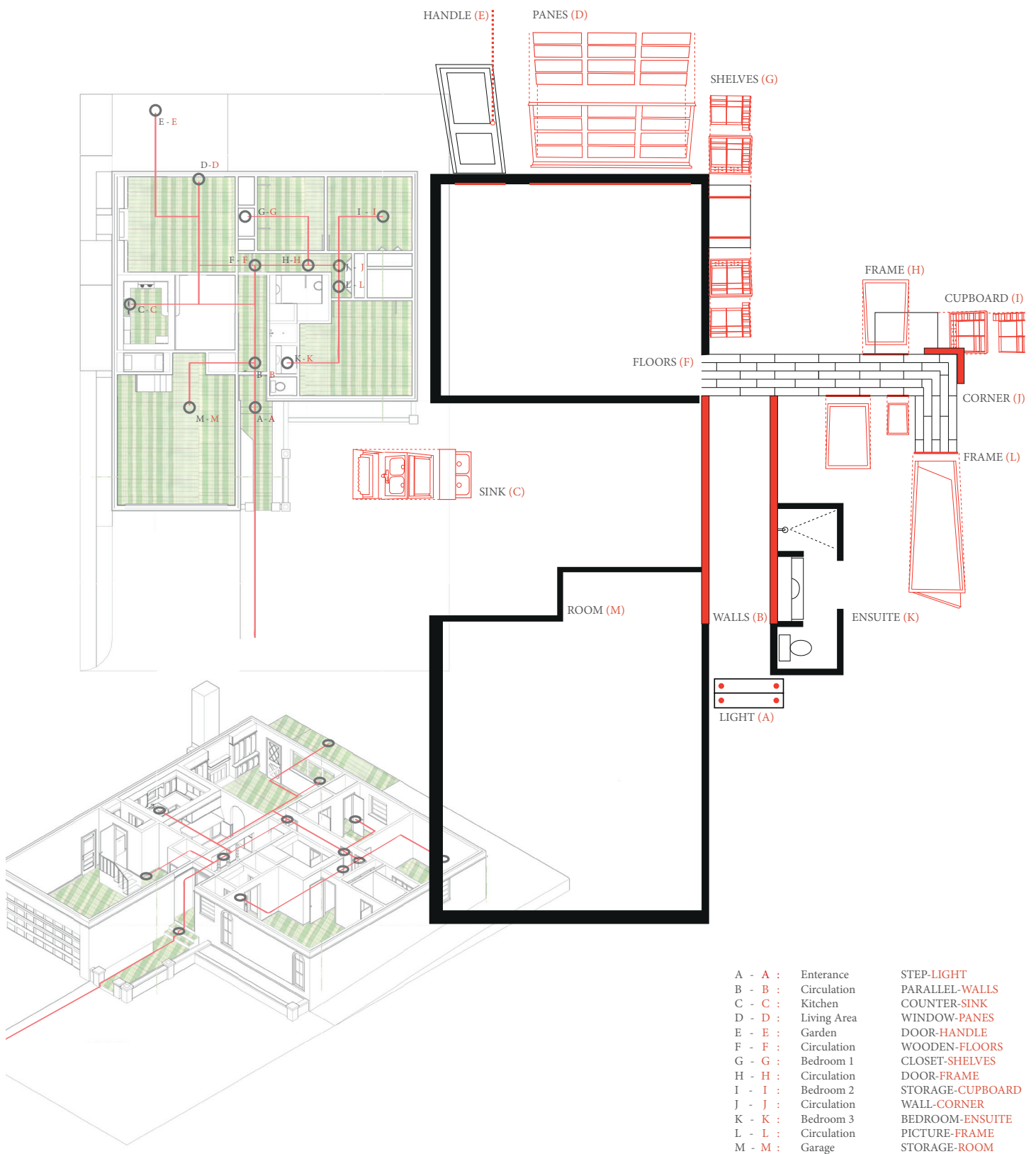


FIG.21: Generic architectural space

An analogical poetry composed entirely of 'Second Terms': together we shall invent what i call wireless imagination. Shorten the chains of double nouns (A-A, B-B, C-C, D-D) into basic chains which contain only the second terms of analogies (A' B' C' D').

TEST A

that were applied to activate language to change the syntax, representation and semantic meaning of sentences. I then selected a generic architectural space(fig.21) to test how this language alters the meaning and representation of common architectural components, i.e step, wall, room. Consequently I applied the linguistic rules 1 to 5 to these three architectural components. As a result:

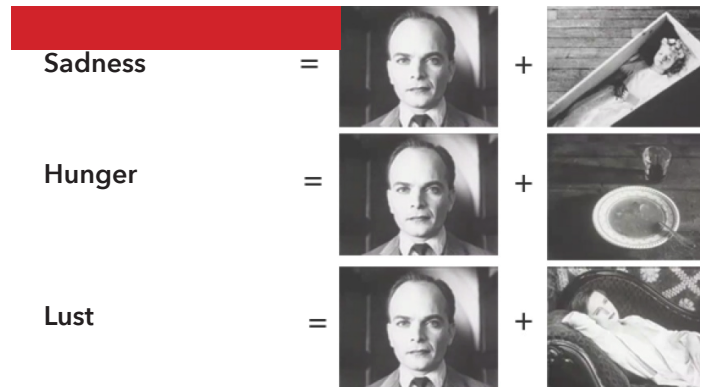
Rule 1-Nouns ⁶⁹(fig.22), rearranges the nouns(fig.23),

⁶⁹ Rule 1: Noun (second terms)- rearranges the nouns. To test rule 1, the components of the flat were defined through their nouns, I did this through moving from the entrance through each of the spaces and picking two nouns, which I could associate with what was there, such as step- light (fig.21). Each of the two nouns is assigned to letters so A-A, B-B, C-C, D-D and so on (as indicated by rule 1 fig.22) consequently, the second letter of each pair of letters and thus each second noun are selected and placed one after the other, activating the nouns to move the architectural components into a new spatial arrangement of AB,CD and so on (fig.23).

Linguistic Rule 1: Nouns (Second Terms)

FIG.22 Rule 1: Nouns

Research:



The Kuleshov effect

is a film editing (montage) effect demonstrated by Soviet filmmaker Lev Kuleshov in the 1910s and 1920s. It is a mental phenomenon by which viewers derive more meaning from the interaction of two sequential shots than from a single shot in isolation.

However, Marinetti wanted to create an affect of disconnect between the images. **It is the logic of the illogical.**

"To apply Marinetti's aesthetic to the art of the screen would be a logically justified aesthetic."

Gobetti, Piero, 1919

Poetry of 'second terms'

The idea of 'fus[ing] the object directly with the image that it evokes' (Marinetti 1912a: 108) and of condensing every analogy into 'a single essential word' led Marinetti to theorize not only on analogies *in praesentia* (that is, analogies that present both the object and the image evoked by the object; that is, both the tenor and the vehicle), but also analogies *in absentia* (that is, analogies that 'hide' the tenor, presenting only the vehicle). From the very beginning, he conceived of an analogical poetry composed entirely of vehicles or 'second terms': 'Together we shall invent what I call *wireless imagination*'. We shall arrive, one day, at an art that is even more essential, when we have dared to suppress all the first terms of our analogies so as to give nothing more than the uninterrupted second terms.' (Marinetti 1912a: 112) Marinetti proposed to shorten the chains of double nouns (A-A' B-B' C-C' D-D'...) into basic chains, which would contain only the second terms of the analogies (A' B' C' D'...). For example, the analogical passage 'battalions-ants cavalry-spiders roads-fords' (1912b: 115) And a little further on, he continues: 'I aspire to an illogical sequence which is no longer explanatory, but intuitive, in the use of only the second terms of many analogies, all disconnected, one from the other, and very often of opposing meaning, one to another.' (Marinetti 1912b: 115) Here one can concur with Piero Gobetti, who in 1919 observed that 'to apply Marinetti's aesthetic to the art of the screen would be a logically justified aesthetic' (Gobetti 1919: 89). Marinetti's mistake was that he developed his new aesthetic in literary terms, that is, for the written medium. According to Gobetti, 'cinema has all the characteristics that Marinetti would like to confer to poetry'. And he adds: 'There, one finds speed and variety, triumph of the physical element over psychology, the kingdom of sensation, the intoxication of nature. Marinetti felt all of this and believed he could introduce it into literature. From there came a kind of external mechanism.' (Gobetti 1919: 89).

If the 'illogical sequence' of analogies were to be put into images, an excellent illustration of experimental cinema would be produced. Gobetti is right that 'a kind of external mechanism' arises when this operation of film-like montage is brought into literature and that Marinetti's hypothesized wireless imagination would work much better on screen than on the page. This was subsequently demonstrated during the 1920s by the Dadaist and Surrealist film

* The manifesto appeared first as a leaflet and was associated with the *Avant-garde*.

Application:

A - A : STEP - LIGHT
B - B : PARALLEL - WALLS
C - C : COUNTER - SINK
D - D : WINDOW - PANES

A-A, B-B, C-C, D-D

A=A, B=B, C=C, D=D

A, B, C, D

An analogical poetry composed entirely of 'Second Terms': together we shall invent what i call wireless imagination. Shorten the chains of double nouns (A-A, B-B, C-C, D-D) into basic chains which contain only the second terms of analogies (A' B' C' D').

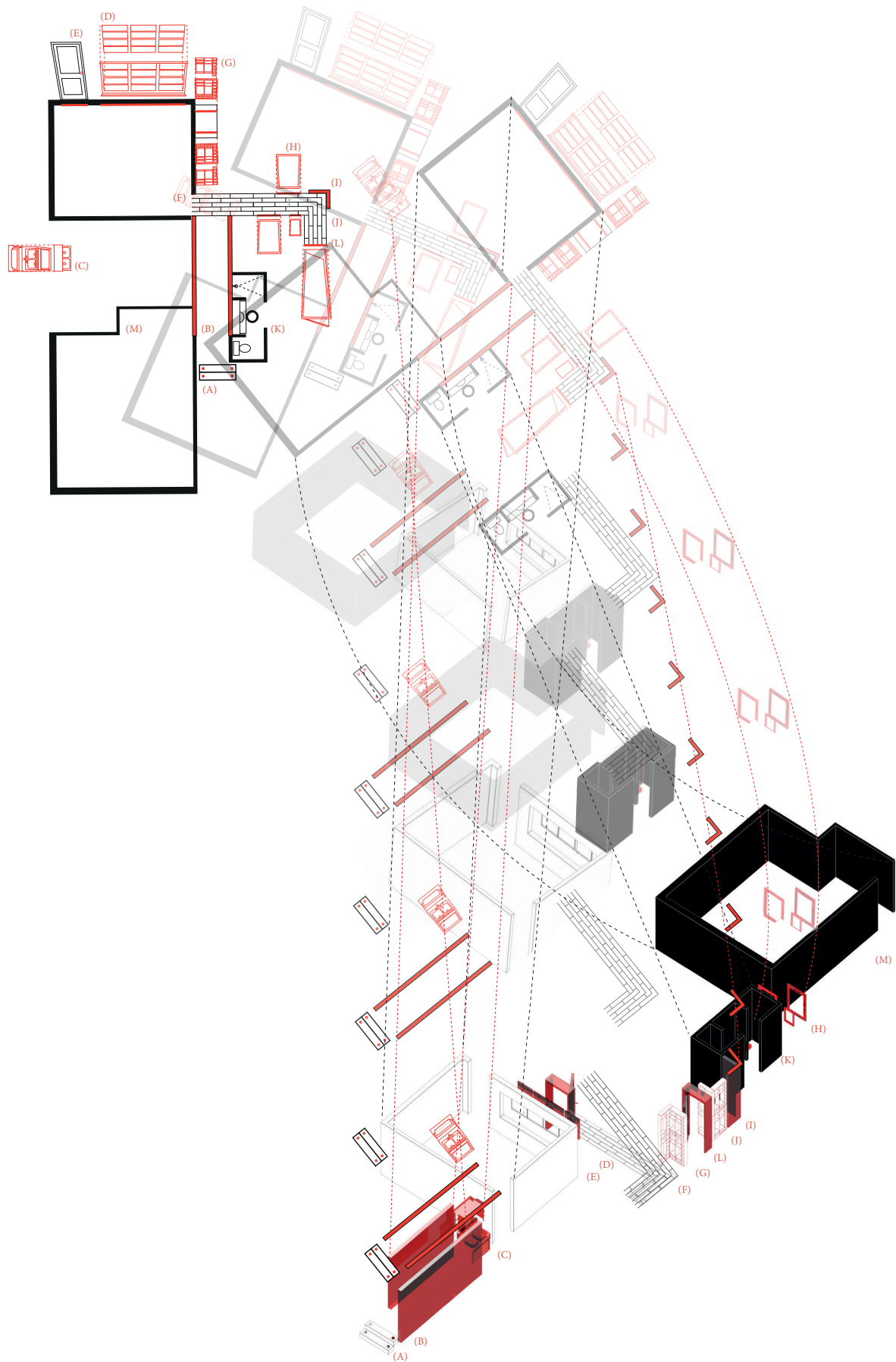


FIG.23: Noun rearranges architectural nouns.

Rule 2-Mathematical Signs⁷⁰(fig.24) replaces full stops and coma's as it adds a propositional (new) component(fig.25-27),

⁷⁰ Rule 2: Mathematical sign replaces full stops and coma's as it adds a propositional (new) component whilst also abbreviating the sentence. To test rule 2 I selected 3 components to manipulate step, wall and room. Step and wall were associated with word 1 and word 2 and the mathematical sign was associated with the room. As a result, + added the three components to one point (fig.25), x multiplies the room component (fig.26), ÷ divides the space in-between word 1 and word 2,- subtracts the room component from word 2 (fig.27).

Linguistic Rule 2: Mathamatical Sign

FIG.24 Rule 2: Mathematical Signs

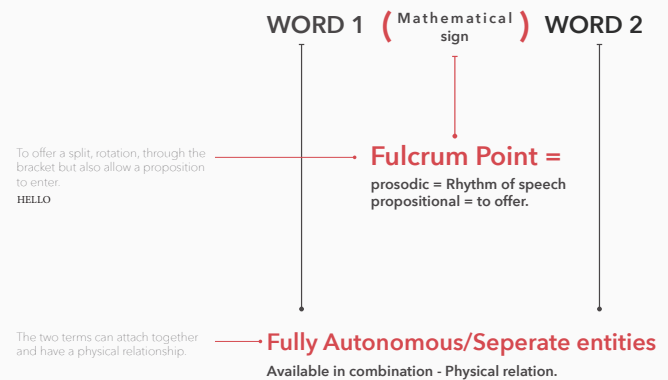
Research:

Material Aspects & Mathematical Signs

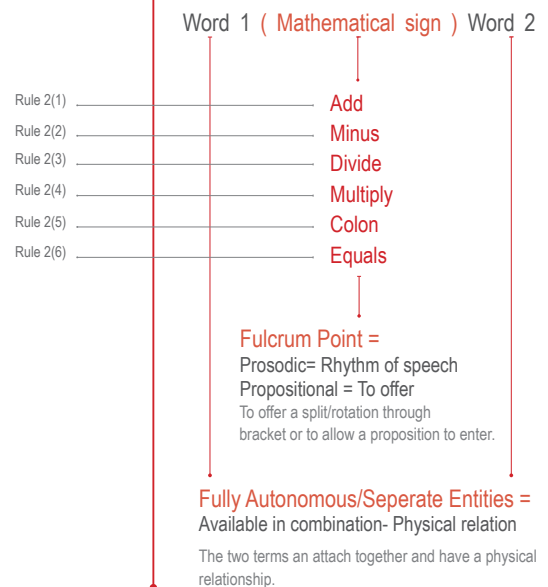
Johanna Drucker, 1994

The piece conforms to Marinetti's image of a "modern" language, a language designed for speed, unencumbered with the baggage of conjugations, declensions, qualifications, and descriptive excesses. This was a mechanical language with a few well-moving parts, put at the service of analogy and its full force. Marinetti also made the point that the force he envisioned in analogy was an illogical force, a language freed from the logic imposed by normal syntax, a "logic" which restricted the full potential of language to signify in the way in which words, disposed at random, or at least, freed from the linear confines of punctuation, might. The use of the mathematical notation at first glance suggests mere substitution of, for instance, the sign (=) for the word (equals). In fact, a different relation is actually posed by the sign than would have been posed by the word in the same position. The two terms on either side are balanced across a fulcrum point and their relationship is not, strictly speaking, linguistic, but rather, physical, even mathematical. Commenting on his procedure in this same work, Marinetti said,

By using the conspicuous mathematical notation, Marinetti destroyed the visual habit of syntactic representation, the linearity in which certain structural relations, like (+) or (=), were buried within the semantic value of the words "and" or "equals" or "is." Arguably, the substitution was not simply that of a visual mark for a word which was its equal, but the substitution of a system in which relations were more propositional than prosodic. The elements on either side of an (=) or (+) sign separated into fully autonomous units, discrete units available for combination, opposition, or other nearly physical relations, while the elements linked by the word "and" or "is" would be contained within the linear sequence of which they were a part and which contained them within its ribbon of discourse. In Marinetti's terms, the "substantive" value of the elements linked by the mathematical signs increased since their definition as syntactic elements was decreased; all that remained to define them was their objectness, their individual identity as elements.



Application:



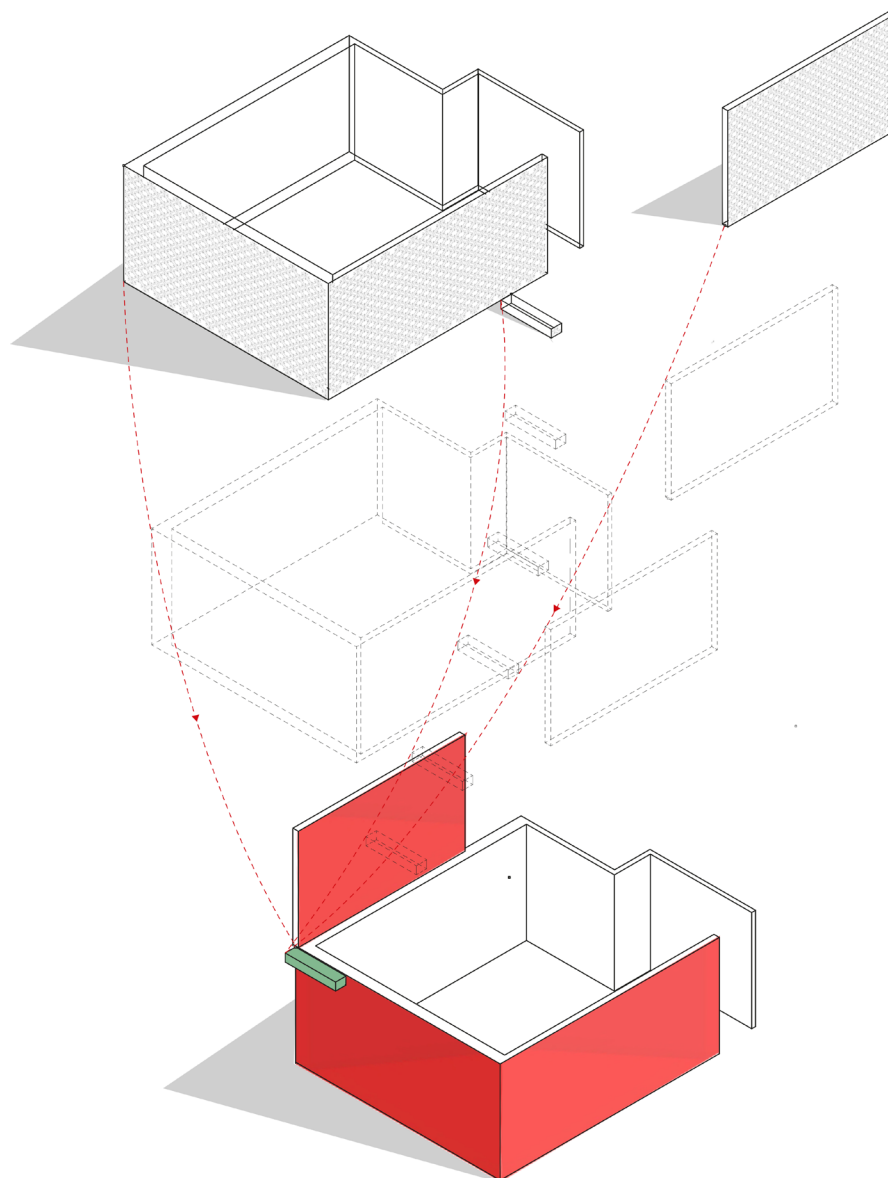


FIG.25: Mathematical sign + rearranges architectural elements step, wall and room.

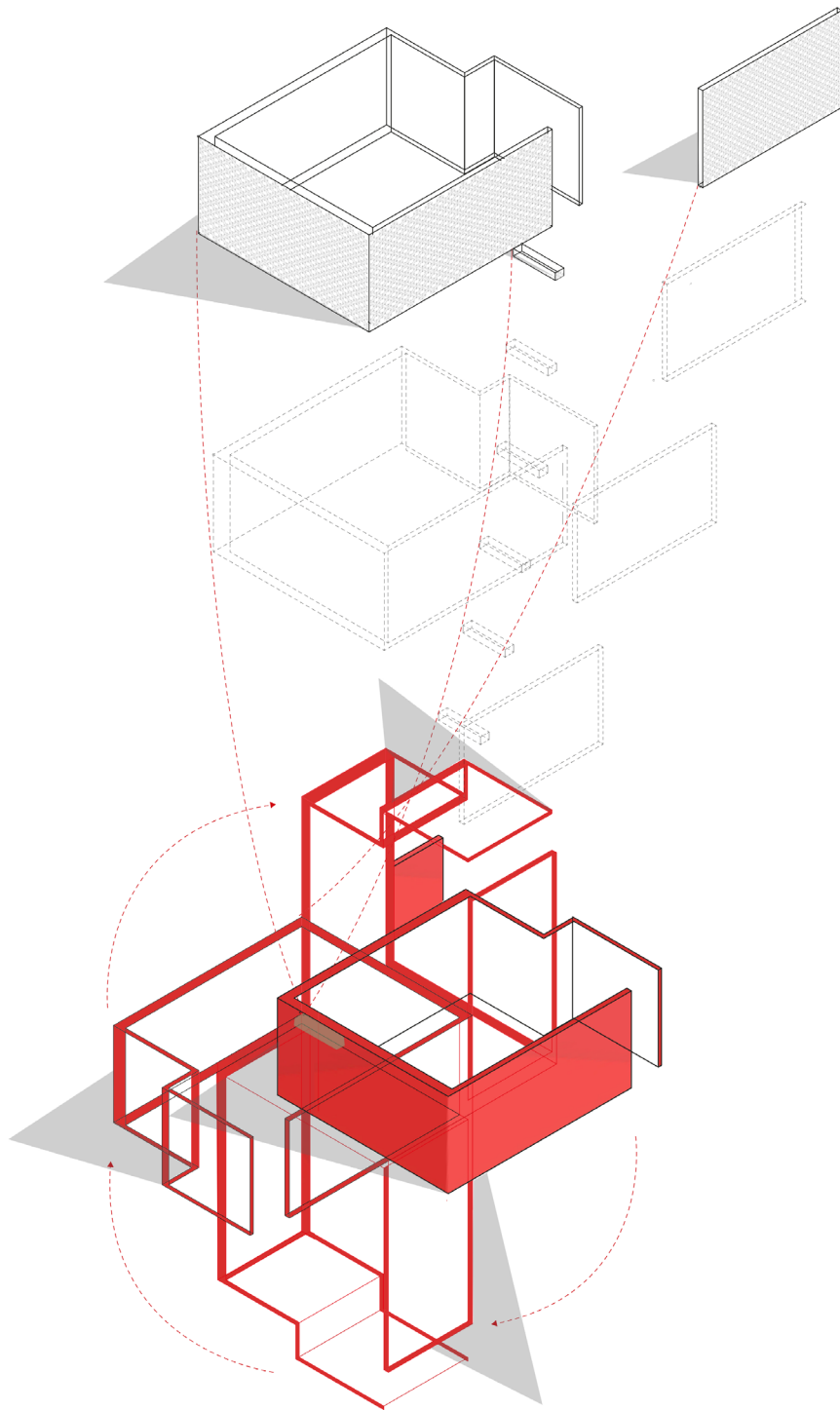


FIG.26: Mathematical sign + rearranges architectural elements step, wall and room.

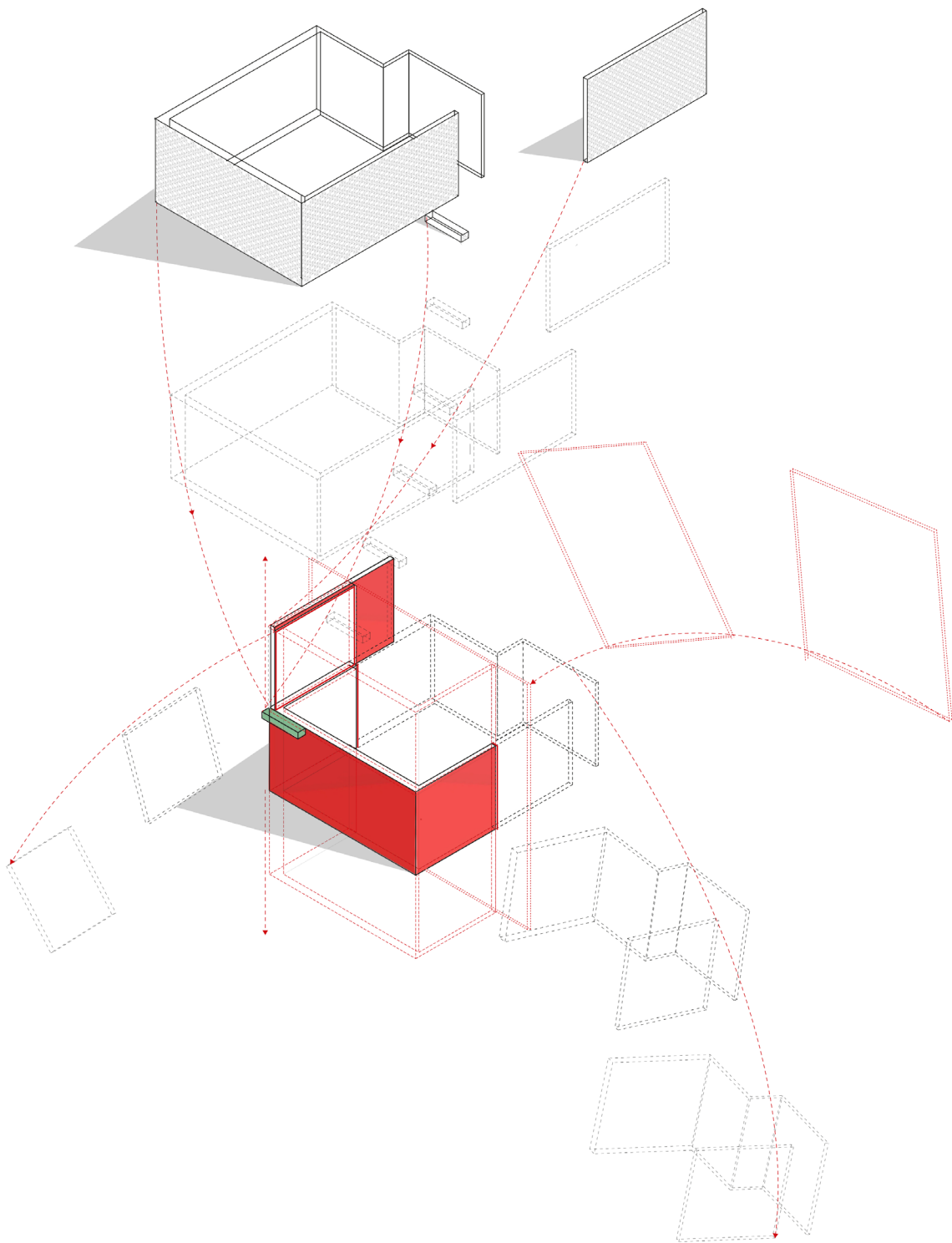


FIG.27: Mathematical sign + rearranges architectural elements step, wall and room.

Rule 3- adjective/verb⁷¹(fig.28) cuts or folds elements depending on the number of adjectives used in a text to illustrate play with speed and motion(fig.29-32),

71 3-(regulate tempo) cuts or folds elements depending on the number of adjectives used in a text to illustrate play with speed and motion. To test rule 3 the component corridor was affected by adjectives, eg. Slowly (fig.30), two time (fig.31), quickly (fig.32) or more quickly (fig.33) allowing the adjective to cut the space and through its angle of displacement communicate tempo and speed

FIG.28 Rule 3: Adjectives/Verb

Linguistic Rule 3: Adjectives/Verb (Regulate Tempo)

Research:

Onomatopoeia
& Mathematical
Signs

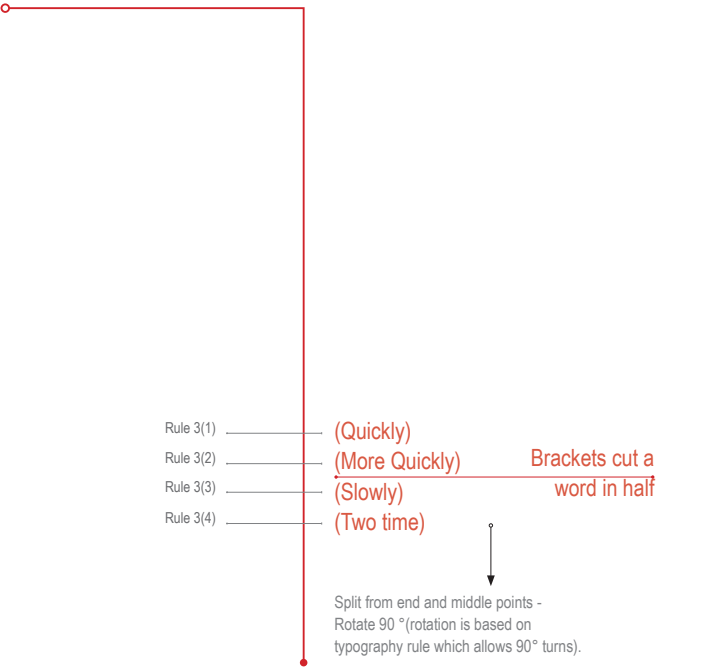
Critical writings,
F. T. Marinetti, 2006

ONOMATOPOEIA AND MATHEMATICAL SIGNS

When I said that "we must spit every day on the *Altar of Art*,"¹⁸ I urged the Futurists to free lyricism from a solemn atmosphere, full of penitence and incense, that is habitually called Art with a capital A. This Art with a capital A is in fact the clericalism of the creative spirit.¹⁹ And it was for this reason that I encouraged the Futurists to destroy and mock the garlands and palms and haloes, the precious cornices, stoles, and embellishments, all the historical garb and Romantic bric-a-brac that make up a great part of the poetry produced up to now. In its place I proposed a swift lyricism, brutal and immediate, a lyricism which to all our predecessors would have seemed antipoetical, a telegraphic lyricism that bears not the slightest hint of books but, as much as possible, the taste of life. And stemming from this is the courageous introduction of onomatopoeic arrangements to render all the noises and sounds—even the most raucous—of modern life.

Onomatopoeia, which has the effect of enlivening lyricism with rough, raw elements of reality, was used in poetry (from Aristophanes to Pascoli) more or less timidly. We Futurists are initiating a bold and continuous use of onomatopoeia. It doesn't have to be systematic. For example, my "Adrianopolis Siege-Orchestra" and my "Battle Weight + Stench"²⁰ required a lot of onomatopoeic arrangements. Ever with the intention of providing the highest number of vibrations and a deeper synthesis of life, we are abolishing all stylistic links, all the polished clasps with which traditional poets connect the images in their sentences. Instead, we make use of the briefest or anonymous mathematical and musical signs, and between brackets we place indicators such as: (quickly) (more quickly) (slowing down) (two time) to regulate the speed of the style. These brackets can also cut a word or an onomatopoeic arrangement in two.

Application:



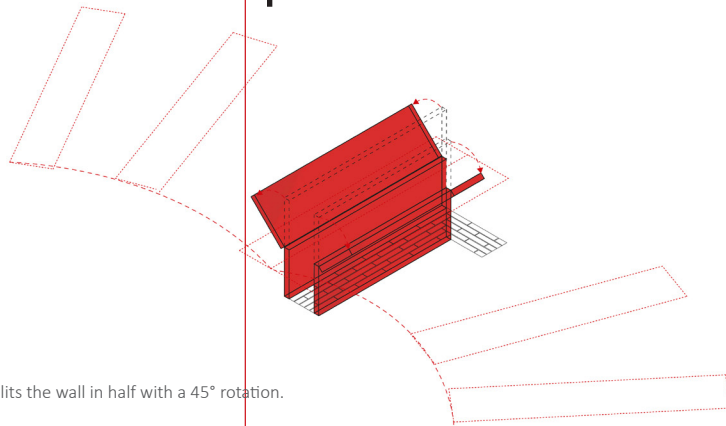


FIG.29: The adjective- slowly- splits the wall in half with a 45° rotation.

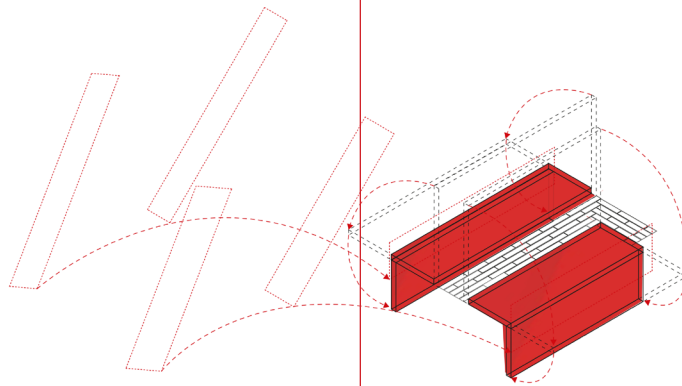


FIG.30: The adjective-two time- splits the wall in half with a 45° rotation.

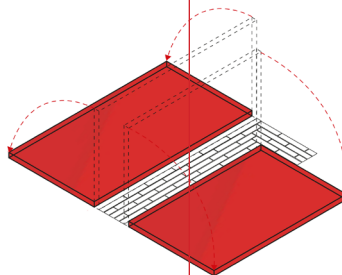


FIG.31: The adjective - quickly- splits the wall in half with a 45° rotation.

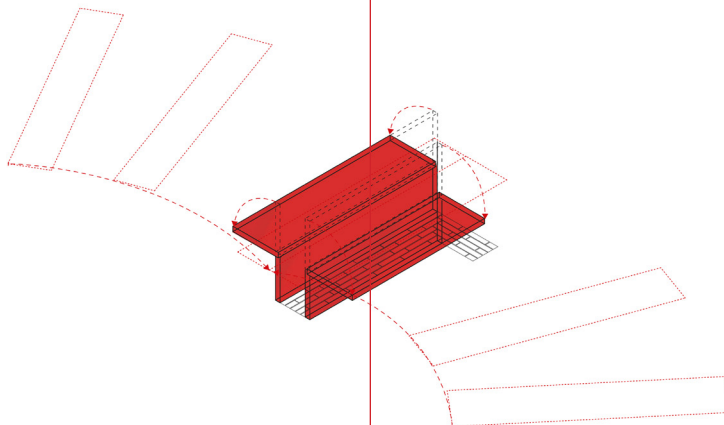


FIG.32: The adjective - more quickly- splits the wall in half with a 45° rotation.

Rule 4-Multilinear Lyricism⁷²(fig.33)changes the scale(fig.34),

72 Rule 4 takes a pictorial (visual) description within a sentence and increases the scale. using the nouns depicted at the beginning and through associating sounds that may occur within the process of walking through this generic space I then constructed poetry of a few lines. Allowing me to test rule 4 by rescaling the words that were associated with pictorial representations such as bedroom or roof (fig.34).

Linguistic Rule 4: Multilinear Lyricism

FIG.33 Rule 4: Multilinear Lyricism

Research:

Multilinear Lyricism

Critical writings.
F.T. Marinetti, 2006.

MULTILINEAR LYRICISM²⁵
Furthermore, I have devised a *multilinear lyricism* with which I succeed in obtaining that lyrical simultaneity that obsesses the Futurist painters as well; *multilinear lyricism*, by means of which I am convinced I obtain the most complex lyrical simultaneities.

The poet hastily sets down on several parallel lines a number of strings of colors, sounds, smells, noises, weights, thicknesses, and analogies. One of these lines will, for example, be olfactory, another musical, and yet another pictorial.

Let's just suppose that the string of pictorial analogies dominates other strings of sensations and analogies. In this case, it will be printed in larger characters than those of the second and third lines (one of which contains, for example, the string of musical sensations and analogies, while the other has that of olfactory sensations and analogies).

On a page containing many batches of sensations and analogies, each one of which is made up of three or four lines, the series of pictorial sensations and analogies (printed in large characters) will take the first line of the first batch and will continue (always with the same size characters) as first line of all subsequent batches.

The series of musical sensations and analogies (second line), being less important than the chain of pictorial sensations and analogies (first line), but more important than that of the olfactory sensations and analogies (third line) will be printed in characters that are not as big as those of the first line, though bigger than those in the third line.

SCALE

F1
3-4 lines

Pictorial Sensation — Large
Musical Sensation — Medium
Olfactory Sensation — Small

F2
3-4 Paragraphs

Pictorial Sensation — Large
Musical Sensation — Medium
Olfactory Sensation — Small

Application:

F1
3-4 lines

Pictorial — Large
Musical — Medium
Olfactory — Small

Amends the scale of two elements in relation to one another. Creates a greater gap between two points.

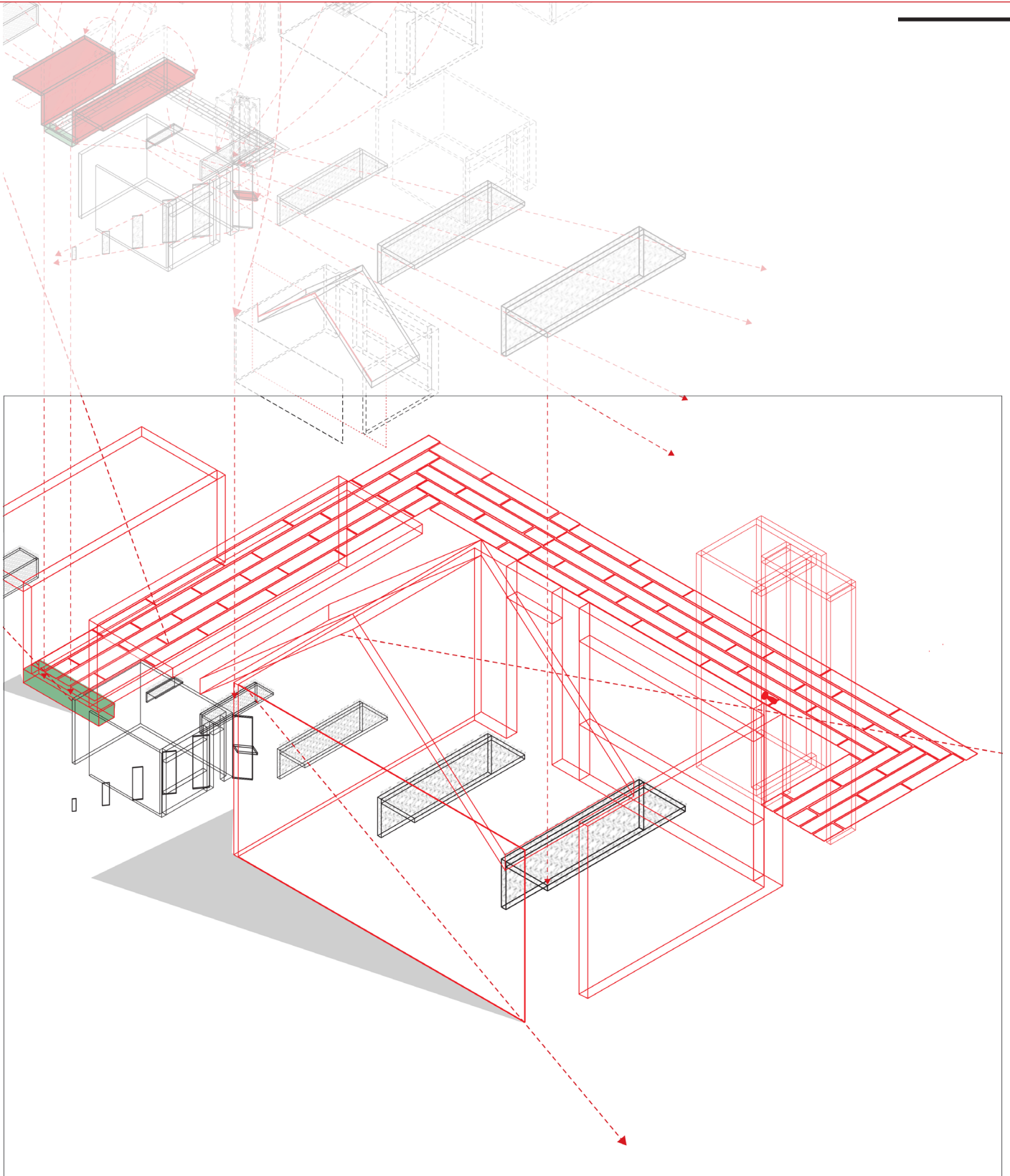


FIG.34: The change in scale of specific components due to the pictorial sensation.

Rule 5-Onomatopoeia⁷³(fig.35)creates depth in the visual representation(fig.36),

⁷³ Rule 5-(force & depth) displaces the letters in a onomatopoeia word to create depth in the visual representation of the word. The components are positioned at regular intervals changing the perception of each component with each utterance of the onomatopoeia. Thus a seat can become a wall, which can become the roof and so on.

Linguistic Rule 5:

Onomatopoeia (Force & Depth)

FIG.35 Rule 5: Onomatopoeia

Research:

Force and Depth

Critical writings.

E. T. Marinetti, 2006.

In conjunction with the Onomatopoeia rule we can vitalize lyricism through architecture. By expressing with force and/or through the repetition of architectural elements, we can recreate this typographical understanding.



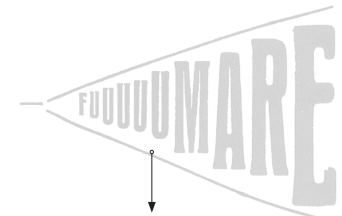
In Words-in-Freedom we must totally eradicate everything that does not aspire to express the fleeting, mysterious Futurist sensibility by means of this most innovative geometrical and mechanical splendor. The free-wording poet Cangiullo in "Fumatori II" (Second-Class Smokers Carriage) was very successful in suggesting the long, monotonous flights of fancy and the outward spreading of smoke-boredom experienced on a long train journey, with this **TYPOGRAPHICALLY DESIGNED IMAGE**.¹⁰

In their continuous attempts at expression through maximum force and depth, Words-in-Freedom are naturally transformed into **AUTO-ILLUSTRATIONS** by means of freely expressive orthographical and typographical forms, the synoptic tables of lyrical values, and typographically shaped analogies, as for example the typographically designed balloon in my *Zang Tumb Tumb*.¹¹ As soon as this higher form of expression is achieved, Words-in-Freedom go back to their normal, habitual flow. Moreover, the synoptic tables of values are the foundations of criticism using Words-in-Freedom (see, for example, "Bilancio 1910-1913" [Balance Sheet 1910-1913] by the free-wording poet Carrà).¹²

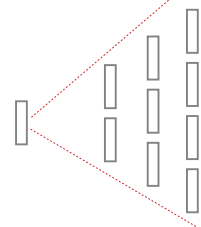
FREELY EXPRESSIVE ORTHOGRAPHY AND TYPOGRAPHY ALSO HAVE THE FUNCTION OF RENDERING THE FACIAL EXPRESSIONS AND OTHER GESTURES OF THE NARRATOR.

Application:

Force & Depth through **onomatopoeia** -
Repositioning of space at 1 meter distances. Number of spaces depicted by letters within word.



Arrays components at equal distances whilst adding a component with each onomatopoeiac letter used in the word.



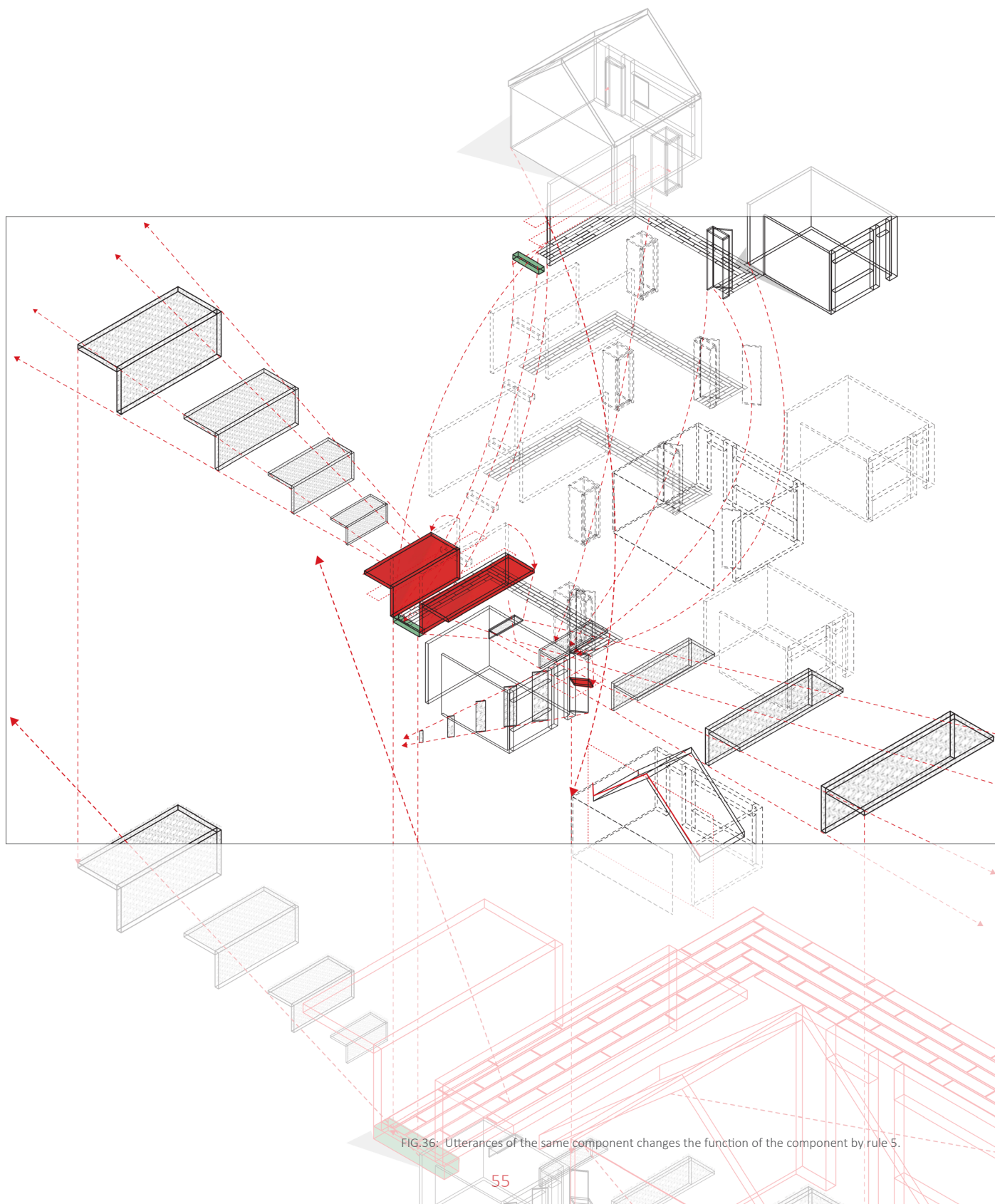



FIG.36: Utterances of the same component changes the function of the component by rule 5.



There are only 5 rules because it allows any word within a sentence to be activated into an avant-garde alternative, thus implementing a transfer of the Futurists activation of language into my design methodology. Illustrating how greatly they can change the representation of architectural form⁶(fig.37). The ambition of this application is to mobilize how the Futurists activated language to create a change within society, whilst separating the method from the political affiliations and intentions. By testing architectural components that are common, by this I mean increasingly visible in the built environment, I am exploring whether these can create a new form of representation for each community or if new components need to be developed.

The outcome has similarities with Eisenman's suspension of meaning, as the architectural components are displaced from their syntactical (logical) position, thus creating a new illogical arrangement with no new meaning because the components are constrained to their original form. However, the spatial relationship between the architectural components has changed, as a step is the size of a wall, a wall has been cut and folds in on itself, whilst a room has been rotated becoming the walls, the roof and even the basement forming pockets of space that can be occupied in a unique way. Thus, changing the conception of these components as they embody space differently to their original purpose. This is in part due to the incorporation of the notion of chance within the rule system, which lends components more visibility in the new arrangement, whilst empowering some components (step now the size of a room). Illustrating how this same understanding has the potential to empower the architectural form of the communities. However, It has not changed the materiality of the components and no material definition has been allocated through the system.

The previous test illustrated how the rules can change the representation of components by giving

73 The transfer of these few lines of poetry illustrates the impact of language to architectural the generic space (fig.37).

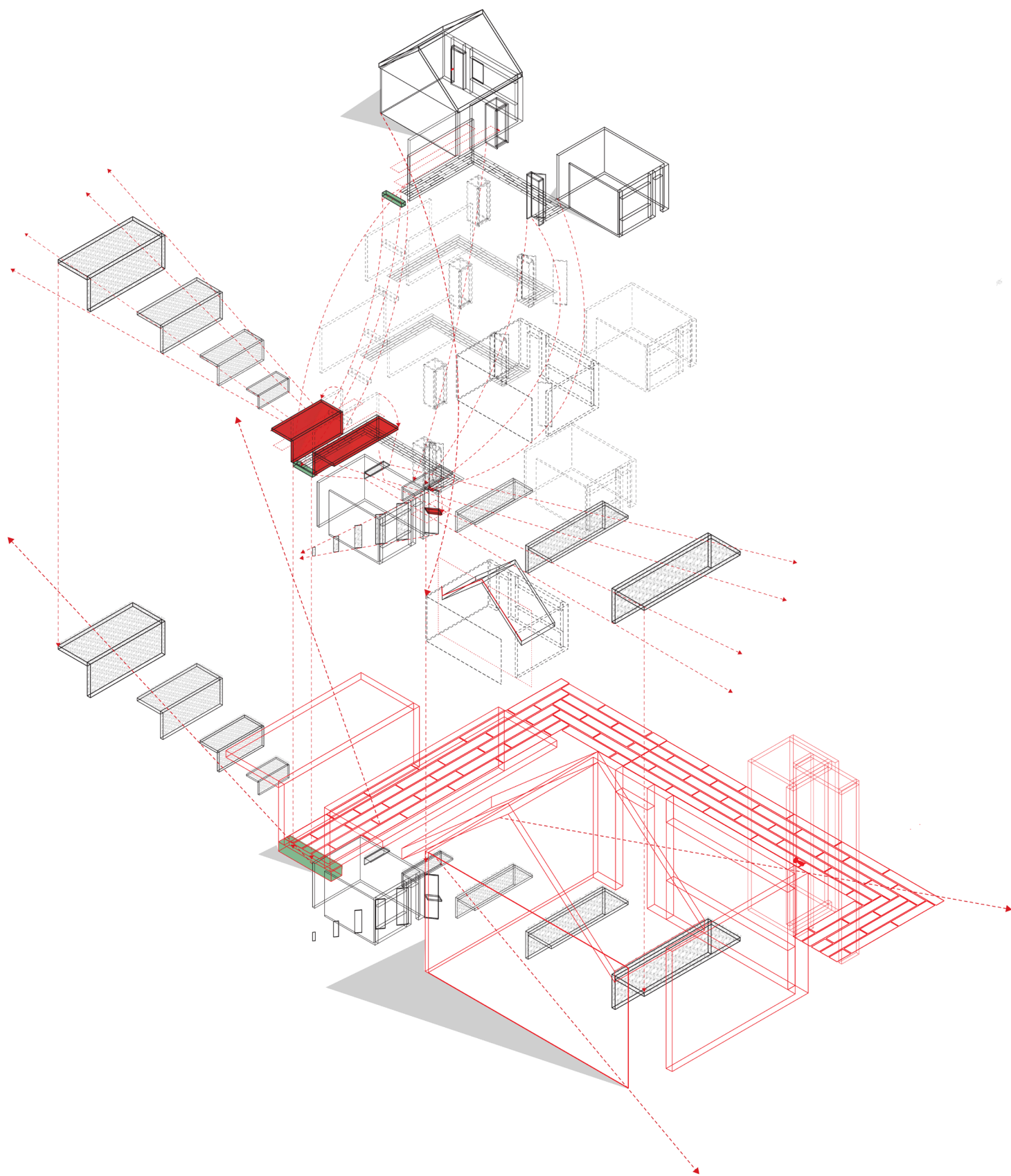


FIG.37: The 5 rules applied to the generic architectural space.

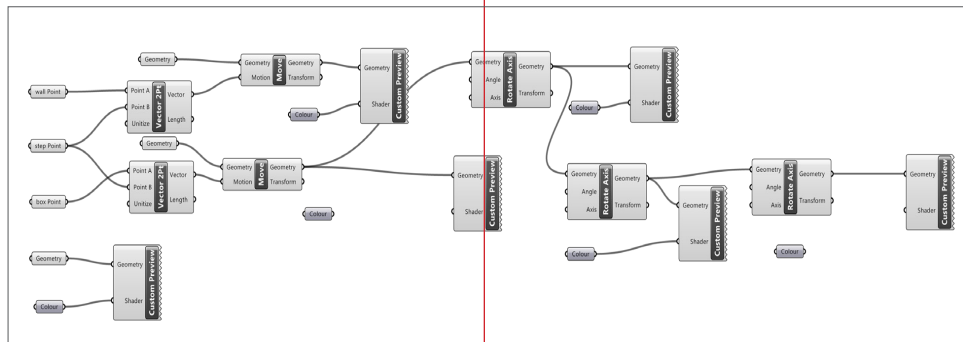


FIG.38: Grasshopper rule system.

Italians	Chinese	Morrocan
<p>The Italians</p> <p>N</p> <p>1968</p> <p>ARTS</p>	<p>Lives in Chinese Music Art</p> <p>N N N N</p> <p>N N</p> <p>2009</p> <p>ARTS</p>	<p>The Caliph's house: Year in Casablanca</p> <p>N N N N</p> <p>N N</p> <p>2006</p> <p>ARTS</p>
<p>Calcio: History of Italian Football</p> <p>N N N N</p> <p>:N N</p> <p>2007</p> <p>ARTS</p>	<p>The chinese art book</p> <p>n n n</p> <p>N</p> <p>2013</p> <p>ARTS</p>	<p>A rare blue bird that flies with me</p> <p>A N N M</p> <p>A N</p> <p>2014</p> <p>ARTS</p>
<p>The Leopard</p> <p>N</p> <p>N</p> <p>1958</p> <p>ARTS</p>	<p>The Jinzhou Division divide</p> <p>N N N</p> <p>N N</p> <p>2008</p> <p>ARTS</p>	<p>Casablanca: my moroccan food</p> <p>N N N</p> <p>:N</p> <p>2018</p> <p>ARTS</p>
<p>The Italian Education</p> <p>N A</p> <p>1968</p> <p>HUMANITIES</p>	<p>Traditional rural cooperation and social structure</p> <p>The communist chinese collectivization of agriculture</p> <p>A A N N N N N N A N P C</p> <p>A A N N N N</p> <p>1973</p> <p>HUMANITIES</p>	<p>A Muslim Suicide</p> <p>n n</p> <p>N</p> <p>2012</p> <p>HUMANITIES</p>

FIG.39: Example of top books.

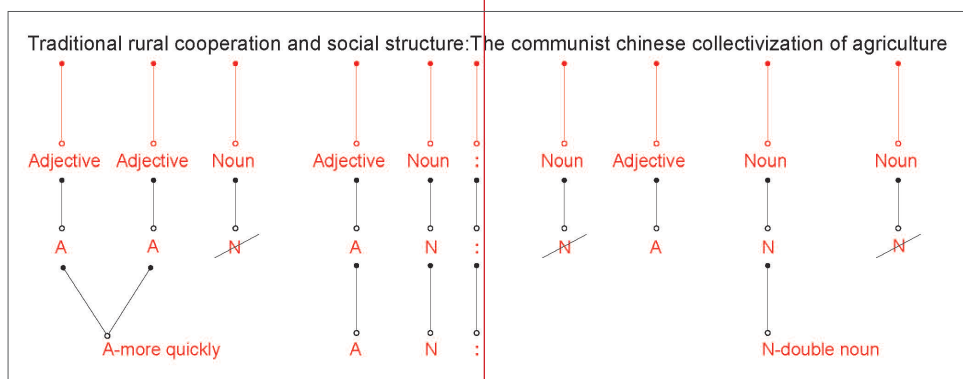


FIG.40: Retrieving the code from the book title.

TEST B

them visibility and empowering difference, however it did not convey how they can be applied in a rule-bound system to the different communities on site to give them authorship. Therefore, I will use the rules on 6 communities respective languages to explore how it can develop into an architectural form.

In order to apply language in a rule-bound system I deploying the use of Grasshopper (a graphical algorithm editor), which allows me to develop a coherent and systematic application of the rule sets so to not generate arbitrary results. I have specifically chosen grasshopper because it works through a rule based system, allowing me to apply and reapply the same rules to different components. Grasshopper works in this context by allowing the architect to assign a command, such as move to a component, such as wall, enforcing its direction or position in space. By writing the command (the code) for the outcome(fig.38) it works similarly to the Oulipian method of N+7, as the systematic approach gives authorship to the commands.

Firstly, the top 10 books for each community are identified(fig.39). Each title is then broken down into the member of a class of words such as the noun and then assigned to the related rule, in this instance because it is a noun it would be rule 1: noun.⁶⁹ The process results in a code, that is a set of motions and coordinates derived from the rules that determine the spatial location of each architectural component to another(fig.40). Each code facilitates a different aesthetic outcome and arrangement from the same component (a book). Authorship is given to each of the architectural components through the engagement of chance within the process and the systems contingency on itself to create the form(fig41-47).⁷⁴

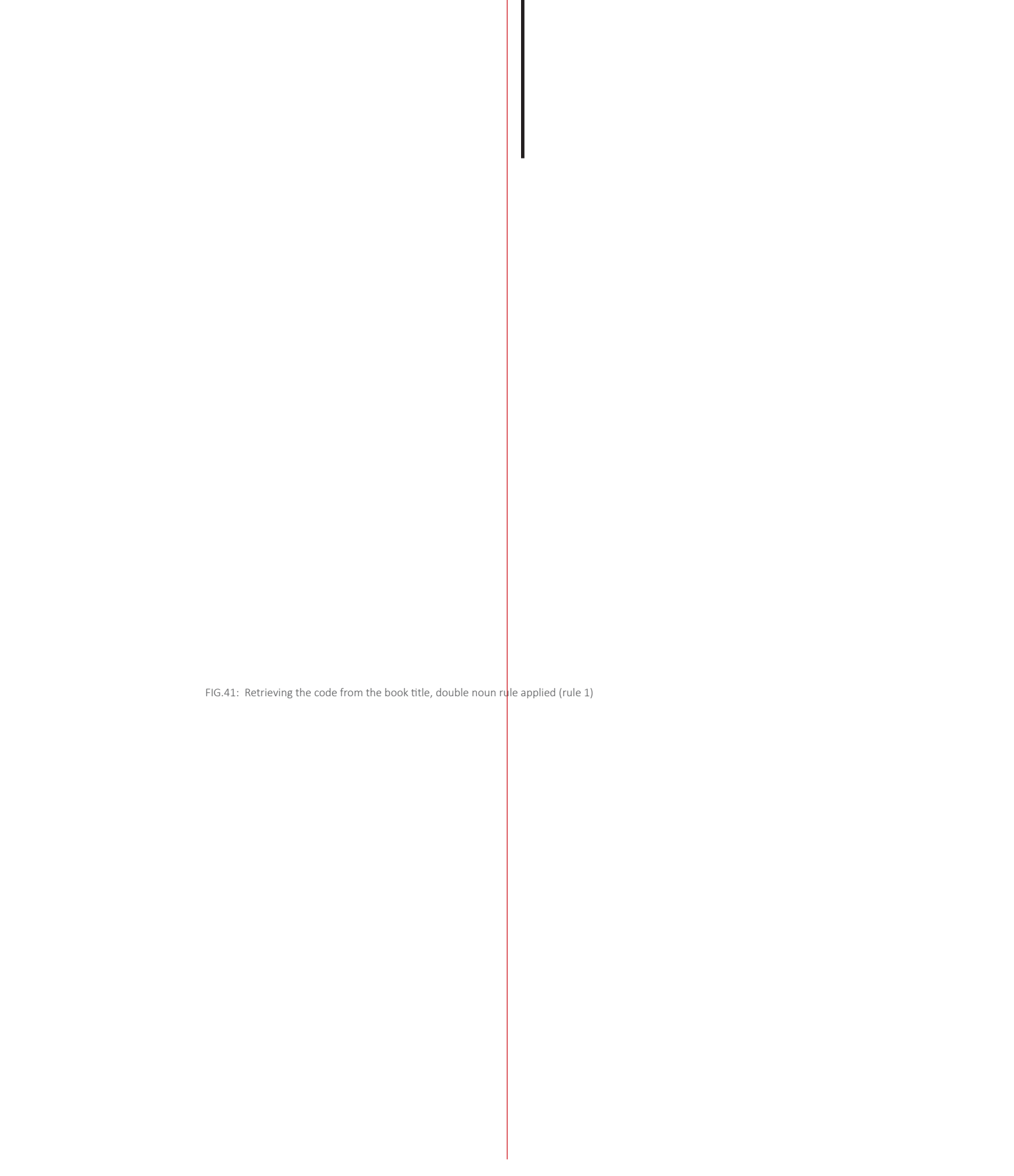


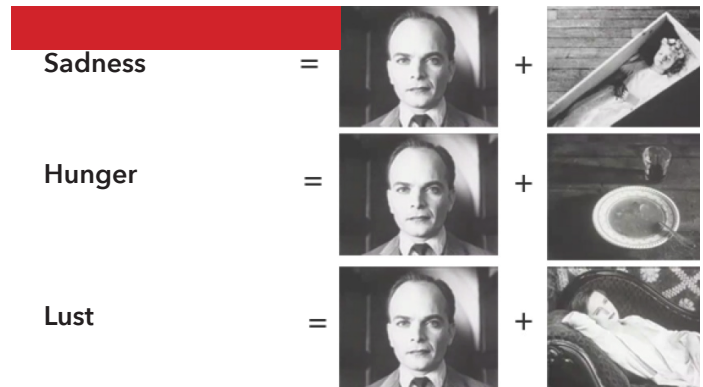
FIG.41: Retrieving the code from the book title, double noun rule applied (rule 1)

74 Each linguistic rule is initially tested on one book to show its movement within space. The book from the code of the book title would then be subjected to various motions. In this example we are able to see the double noun translation from the book title.

Linguistic Rule 1: Nouns (Second Terms)

FIG.22 Rule 1: Nouns

Research:



The Kuleshov effect

is a film editing (montage) effect demonstrated by Soviet filmmaker Lev Kuleshov in the 1910s and 1920s. It is a mental phenomenon by which viewers derive more meaning from the interaction of two sequential shots than from a single shot in isolation.

However, Marinetti wanted to create an affect of disconnect between the images. **It is the logic of the illogical.**

"To apply Marinetti's aesthetic to the art of the screen would be a logically justified aesthetic."

Gobetti, Piero, 1919

Poetry of 'second terms'

The idea of 'fus[ing] the object directly with the image that it evokes' (Marinetti 1912a: 108) and of condensing every analogy into 'a single essential word' led Marinetti to theorize not only on analogies *in praesentia* (that is, analogies that present both the object and the image evoked by the object; that is, both the tenor and the vehicle), but also analogies *in absentia* (that is, analogies that 'hide' the tenor, presenting only the vehicle). From the very beginning, he conceived of an analogical poetry composed entirely of vehicles or 'second terms': 'Together we shall invent what I call *wireless imagination*'. We shall arrive, one day, at an art that is even more essential, when we have dared to suppress all the first terms of our analogies so as to give nothing more than the uninterrupted second terms.' (Marinetti 1912a: 112) Marinetti proposed to shorten the chains of double nouns (A-A' B-B' C-C' D-D'...) into basic chains, which would contain only the second terms of the analogies (A' B' C' D'...). For example, the analogical passage 'battalions-ants cavalry-spiders roads-fords' (1912b: 115) And a little further on, he continues: 'I aspire to an illogical sequence which is no longer explanatory, but intuitive, in the use of only the second terms of many analogies, all disconnected, one from the other, and very often of opposing meaning, one to another.' (Marinetti 1912b: 115) Here one can concur with Piero Gobetti, who in 1919 observed that 'to apply Marinetti's aesthetic to the art of the screen would be a logically justified aesthetic' (Gobetti 1919: 89). Marinetti's mistake was that he developed his new aesthetic in literary terms, that is, for the written medium. According to Gobetti, 'cinema has all the characteristics that Marinetti would like to confer to poetry'. And he adds: 'There, one finds speed and variety, triumph of the physical element over psychology, the kingdom of sensation, the intoxication of nature. Marinetti felt all of this and believed he could introduce it into literature. From there came a kind of external mechanism.' (Gobetti 1919: 89).

If the 'illogical sequence' of analogies were to be put into images, an excellent illustration of experimental cinema would be produced. Gobetti is right that 'a kind of external mechanism' arises when this operation of film-like montage is brought into literature and that Marinetti's hypothesized wireless imagination would work much better on screen than on the page. This was subsequently demonstrated during the 1920s by the Dadaist and Surrealist film

* The manifesto appeared first as a leaflet and was associated with the *Avant-garde*.

Application:

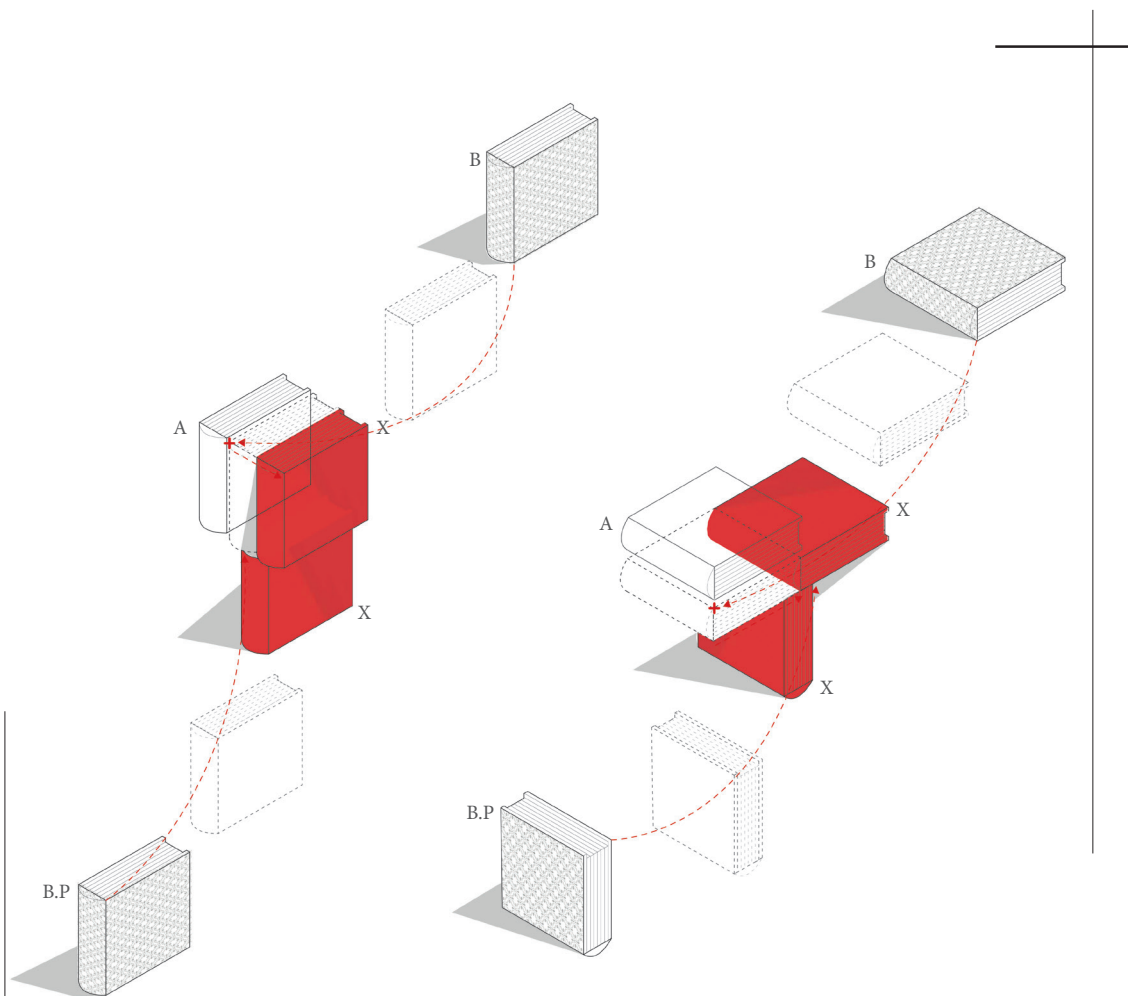
A - A : STEP - LIGHT
B - B : PARALLEL - WALLS
C - C : COUNTER - SINK
D - D : WINDOW - PANES

A-A, B-B, C-C, D-D

A-A, B-B, C-C, D-D

A, B, C, D

An analogical poetry composed entirely of 'Second Terms': together we shall invent what i call wireless imagination. Shorten the chains of double nouns (A-A, B-B, C-C, D-D) into basic chains which contain only the second terms of analogies (A' B' C' D').



Poetic Rule:

A - A : STEP - LIGHT
B - B : PARALLEL - WALLS
C - C : COUNTER - SINK
D - D : WINDOW - PANES

A-A, B-B, C-C, D-D

A-A, B-B, C-C, D-D

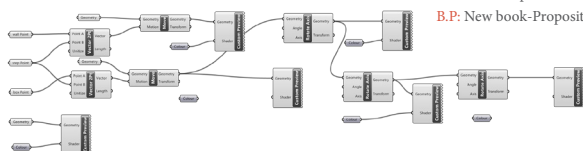
A, B, C, D

An analogical poetry composed entirely of "Second Terms": together we shall invent what I call wireless imagination. Shorten the chains of double nouns (A-A, B-B, C-C, D-D) into basic chains which contain only the second terms of analogies (A' B' C' D').

Book Title:

Blood Pressure & Better Health, Including DASH Diet Recipes & 7-Day Meal Plan

Poetic Rule Algorithm:



Key:

A: Exiting/Allocated book
B: New book
X: New book position
B.P: New book-Propositional

Material Aspects & Mathematical Signs: Minus
Rule application




FIG.42-44: Retrieving the code from the book title

74 Consequently, here we are able to see the mathematical sign translations (rule 2),,

Linguistic Rule 2: Mathamatical Sign

FIG.24 Rule 2: Mathematical Signs

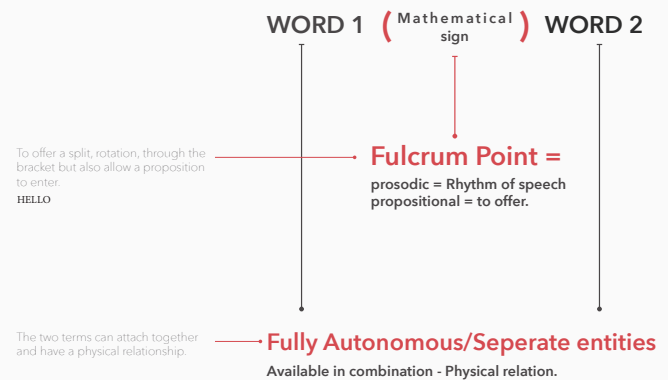
Research:

Material Aspects & Mathematical Signs

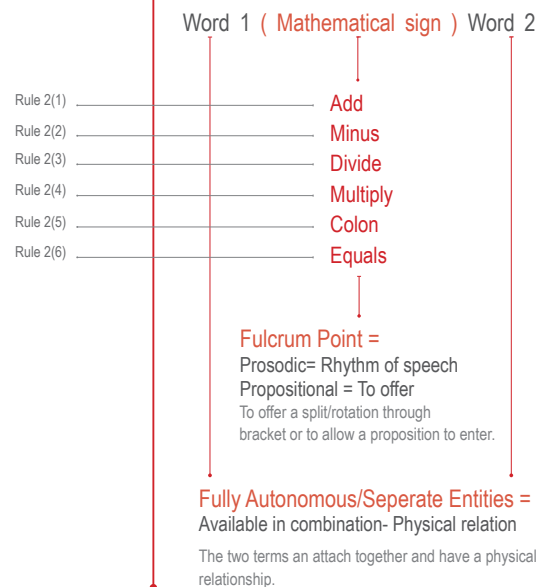
Johanna Drucker, 1994

The piece conforms to Marinetti's image of a "modern" language, a language designed for speed, unencumbered with the baggage of conjugations, declensions, qualifications, and descriptive excesses. This was a mechanical language with a few well-moving parts, put at the service of analogy and its full force. Marinetti also made the point that the force he envisioned in analogy was an illogical force, a language freed from the logic imposed by normal syntax, a "logic" which restricted the full potential of language to signify in the way in which words, disposed at random, or at least, freed from the linear confines of punctuation, might. The use of the mathematical notation at first glance suggests mere substitution of, for instance, the sign (=) for the word (equals). In fact, a different relation is actually posed by the sign than would have been posed by the word in the same position. The two terms on either side are balanced across a fulcrum point and their relationship is not, strictly speaking, linguistic, but rather, physical, even mathematical. Commenting on his procedure in this same work, Marinetti said,

By using the conspicuous mathematical notation, Marinetti destroyed the visual habit of syntactic representation, the linearity in which certain structural relations, like (+) or (=), were buried within the semantic value of the words "and" or "equals" or "is." Arguably, the substitution was not simply that of a visual mark for a word which was its equal, but the substitution of a system in which relations were more propositional than prosodic. The elements on either side of an (=) or (+) sign separated into fully autonomous units, discrete units available for combination, opposition, or other nearly physical relations, while the elements linked by the word "and" or "is" would be contained within the linear sequence of which they were a part and which contained them within its ribbon of discourse. In Marinetti's terms, the "substantive" value of the elements linked by the mathematical signs increased since their definition as syntactic elements was decreased; all that remained to define them was their objectness, their individual identity as elements.



Application:



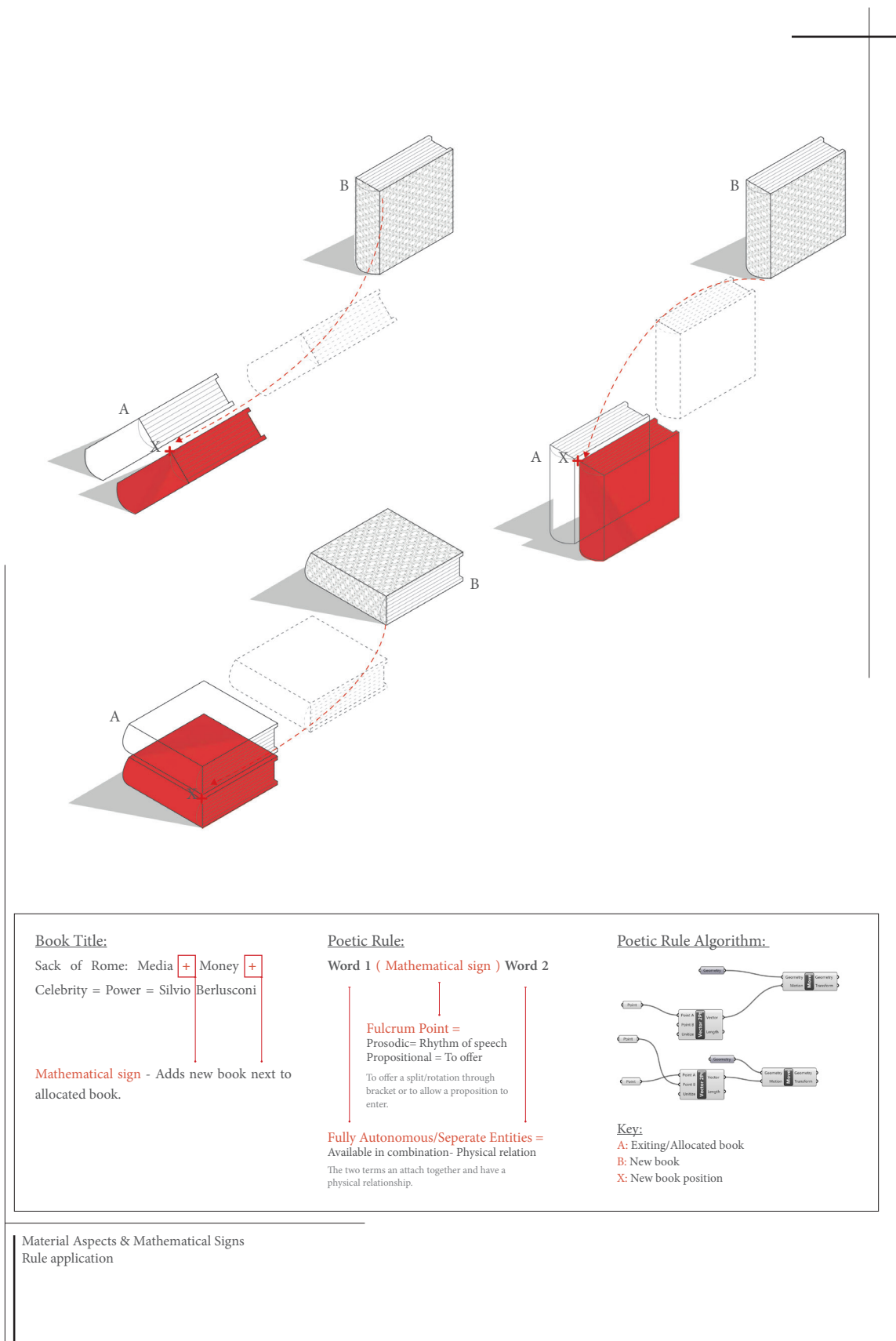
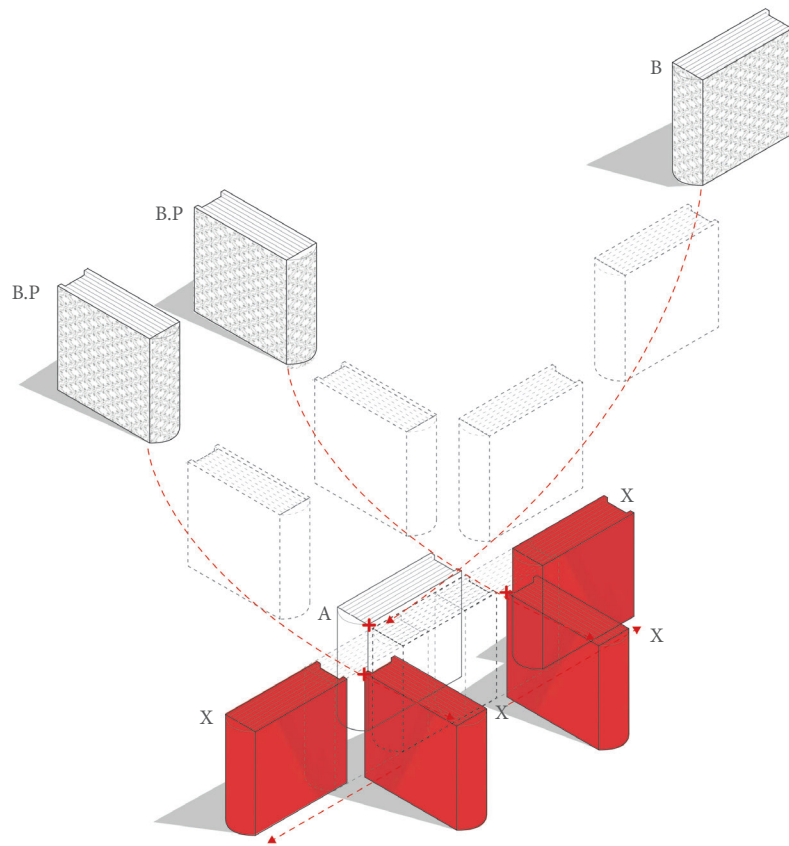


FIG.42: The + mathematical translation from the book title.



Poetic Rule:

Word 1 (Mathematical sign) Word 2

Colon

Fulcrum Point =
Prosodic= Rhythm of speech
Propositional = To offer
To offer a split/rotation through
bracket or to allow a proposition to
enter.

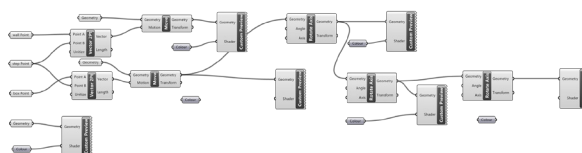
Fully Autonomous/Seperate Entities =
Available in combination- Physical relation
The two terms attach together and have a
physical relationship.

Book Title:

Sack of Rome: Media + Money +
Celebrity = Power = Silvio Berlusconi

Mathematical sign- Places a book either side of the allocated book
- allows a propositional book to enter inbetween each of the new book.

Poetic Rule Algorithm:



Key:

A: Exiting/Allocated book
B: New book
X: New book position
B.P: New book-Propositional

Material Aspects & Mathematical Signs: Colon
Rule application

FIG.43: The : mathematical translation from the book title.

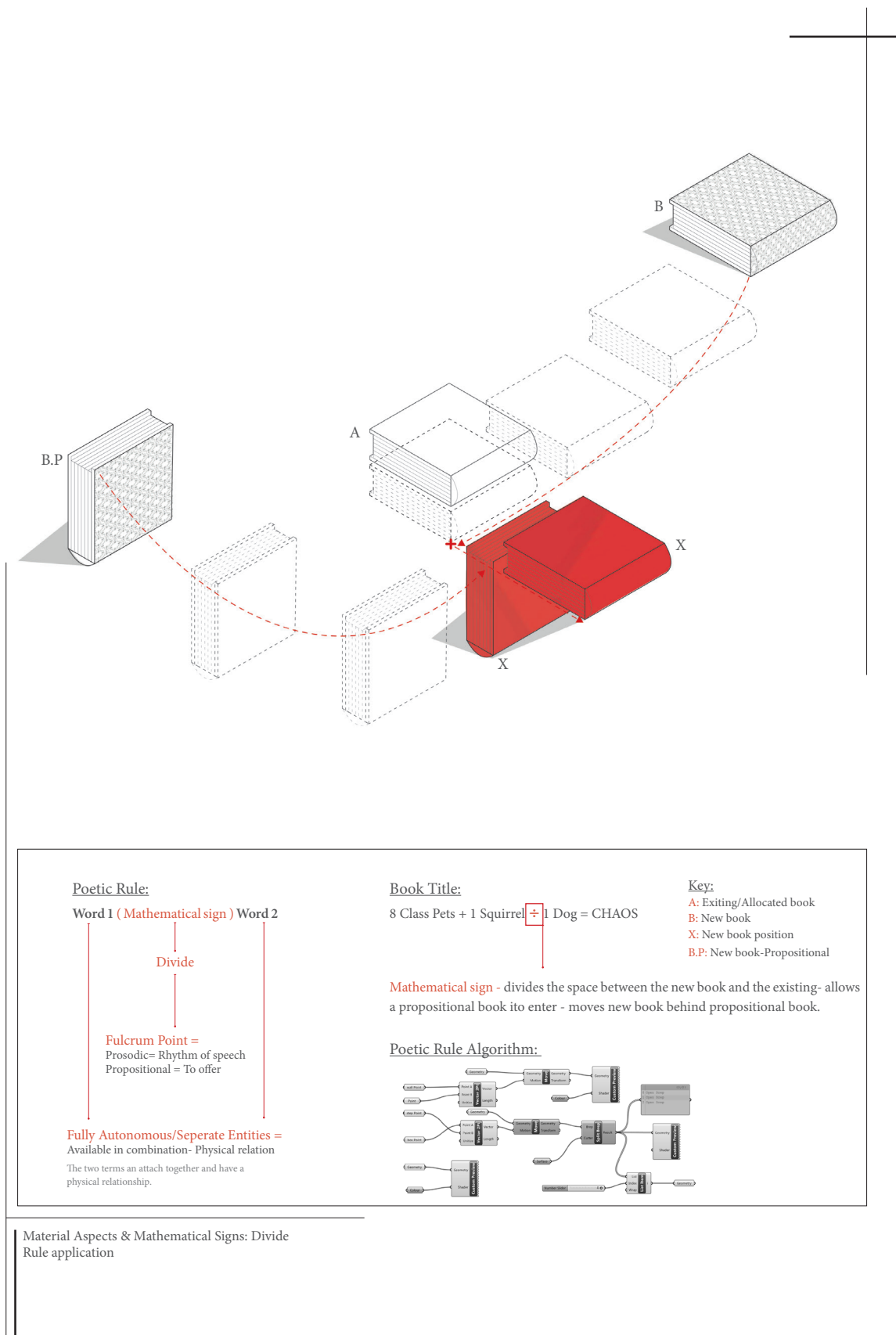


FIG.44: The ÷ mathematical translation from the book title.

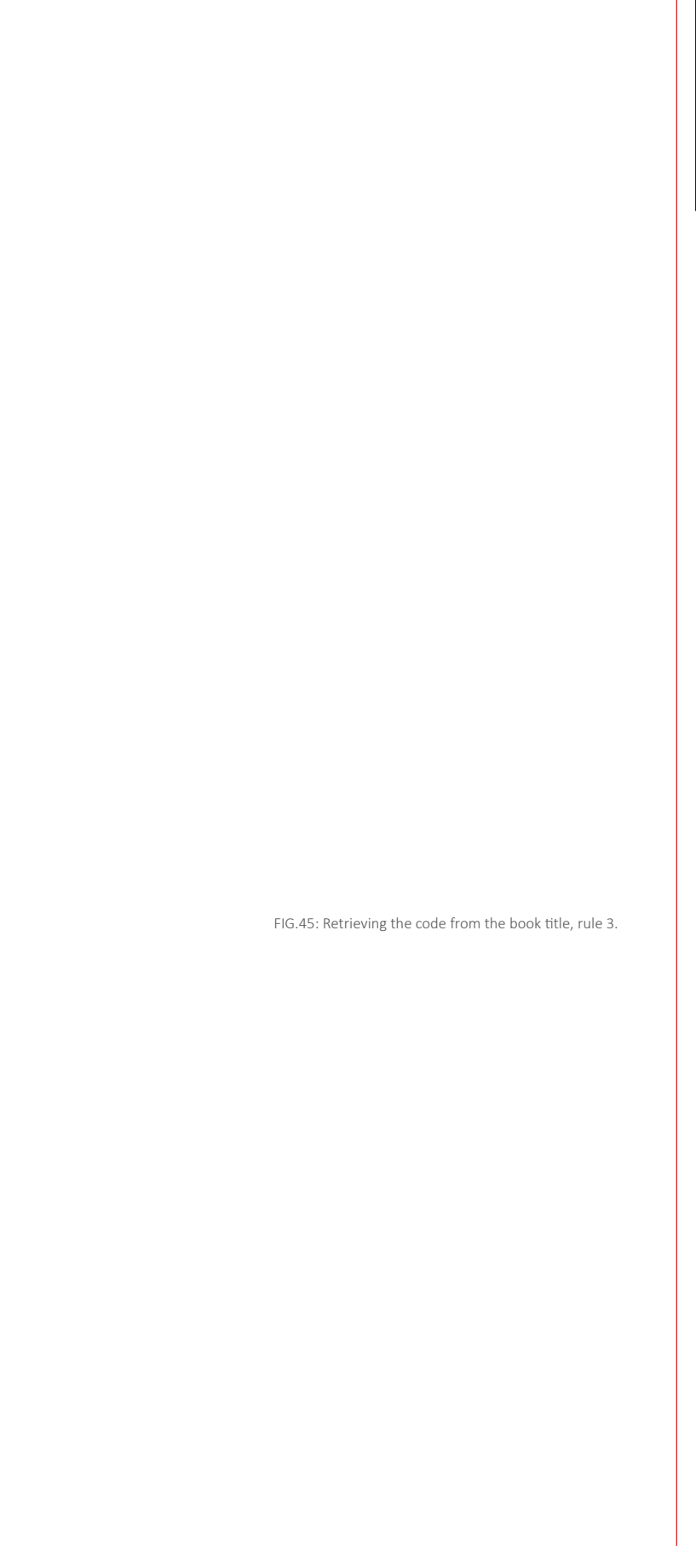


FIG.45: Retrieving the code from the book title, rule 3.

74 the adjective/ verb translations (rule 3 shows the adjectives slowly and more quickly so to convey the change in the use of adjectives through the two extremes).

FIG.28 Rule 3: Adjectives/Verb

Linguistic Rule 3: Adjectives/Verb (Regulate Tempo)

Research:

Onomatopoeia
& Mathematical
Signs

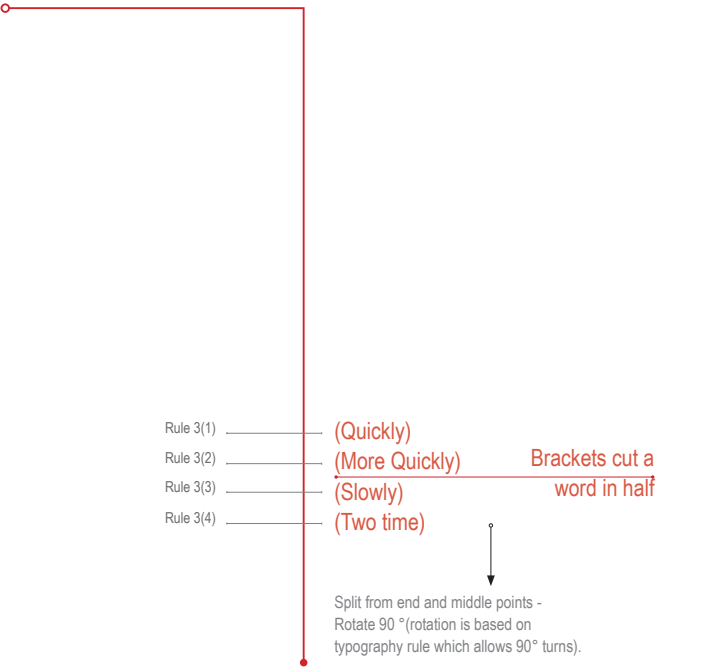
Critical writings,
F. T. Marinetti, 2006

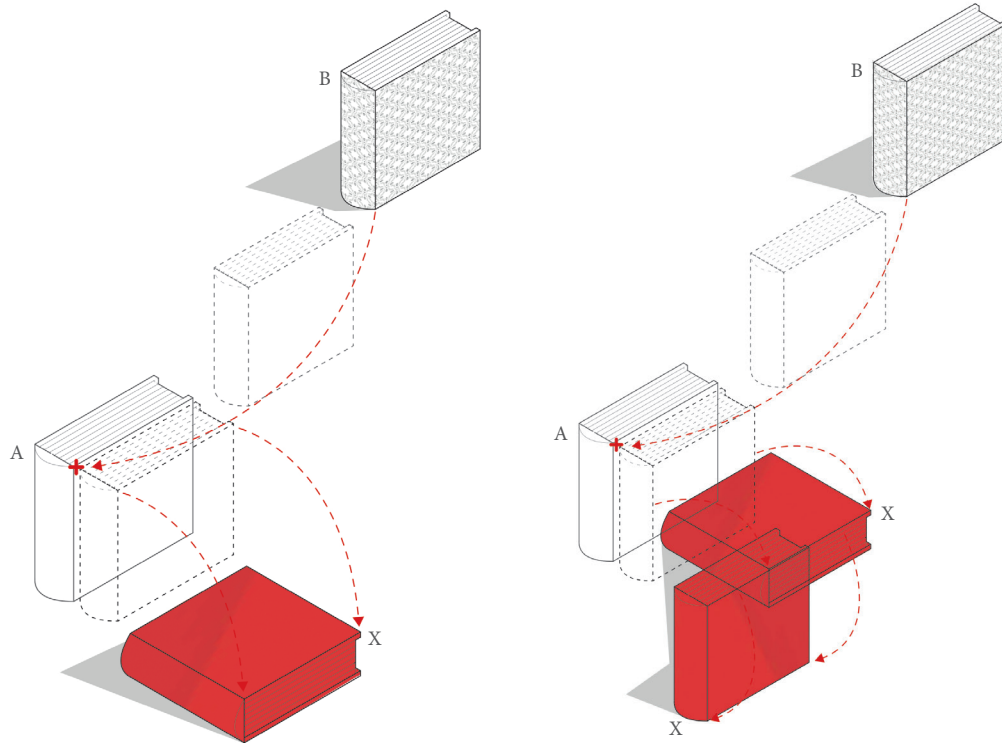
ONOMATOPOEIA AND MATHEMATICAL SIGNS

When I said that "we must spit every day on the *Altar of Art*,"¹⁸ I urged the Futurists to free lyricism from a solemn atmosphere, full of penitence and incense, that is habitually called Art with a capital A. This Art with a capital A is in fact the clericalism of the creative spirit.¹⁹ And it was for this reason that I encouraged the Futurists to destroy and mock the garlands and palms and haloes, the precious cornices, stoles, and embellishments, all the historical garb and Romantic bric-a-brac that make up a great part of the poetry produced up to now. In its place I proposed a swift lyricism, brutal and immediate, a lyricism which to all our predecessors would have seemed antipoetical, a telegraphic lyricism that bears not the slightest hint of books but, as much as possible, the taste of life. And stemming from this is the courageous introduction of onomatopoeic arrangements to render all the noises and sounds—even the most raucous—of modern life.

Onomatopoeia, which has the effect of enlivening lyricism with rough, raw elements of reality, was used in poetry (from Aristophanes to Pascoli) more or less timidly. We Futurists are initiating a bold and continuous use of onomatopoeia. It doesn't have to be systematic. For example, my "Adrianopolis Siege-Orchestra" and my "Battle Weight + Stench"²⁰ required a lot of onomatopoeic arrangements. Ever with the intention of providing the highest number of vibrations and a deeper synthesis of life, we are abolishing all stylistic links, all the polished clasps with which traditional poets connect the images in their sentences. Instead, we make use of the briefest or anonymous mathematical and musical signs, and between brackets we place indicators such as: (quickly) (more quickly) (slowing down) (two time) to regulate the speed of the style. These brackets can also cut a word or an onomatopoeic arrangement in two.

Application:





Book Title:

Christ **stopped** at Eboli

Adjective - used to regulate tempo - Allows 90° rotation.

Book Title:

The New Directors Handbook: How to become more confident, more effective, **more quickly**

Adjective - used to regulate tempo - Allows 90° rotation.

Poetic Rule:

(Quickly)
(More Quickly) Brackets cut a word in half
(Slowly)
(Two time)

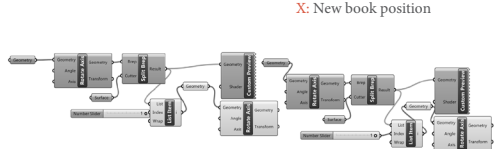
Split from end and middle points - Rotate 90° (rotation is based on typography rule which allows 90° turns).

Poetic Rule Algorithm:

Book.1



Book.2



Key:

A: Exiting/Allocated book
B: New book
X: New book position

Adjectives
Rule application

FIG.46: Retrieving the code from the book title, rule 4.

Linguistic Rule 4: Multilinear Lyricism

FIG.33 Rule 4: Multilinear Lyricism

Research:

Multilinear Lyricism

Critical writings.
F.T. Marinetti, 2006.

MULTILINEAR LYRICISM²⁵
Furthermore, I have devised a *multilinear lyricism* with which I succeed in obtaining that lyrical simultaneity that obsesses the Futurist painters as well; *multilinear lyricism*, by means of which I am convinced I obtain the most complex lyrical simultaneities.

The poet hastily sets down on several parallel lines a number of strings of colors, sounds, smells, noises, weights, thicknesses, and analogies. One of these lines will, for example, be olfactory, another musical, and yet another pictorial.

Let's just suppose that the string of pictorial analogies dominates other strings of sensations and analogies. In this case, it will be printed in larger characters than those of the second and third lines (one of which contains, for example, the string of musical sensations and analogies, while the other has that of olfactory sensations and analogies).

On a page containing many batches of sensations and analogies, each one of which is made up of three or four lines, the series of pictorial sensations and analogies (printed in large characters) will take the first line of the first batch and will continue (always with the same size characters) as first line of all subsequent batches.

The series of musical sensations and analogies (second line), being less important than the chain of pictorial sensations and analogies (first line), but more important than that of the olfactory sensations and analogies (third line) will be printed in characters that are not as big as those of the first line, though bigger than those in the third line.

SCALE

F1
3-4 lines

Pictorial Sensation — Large
Musical Sensation — Medium
Olfactory Sensation — Small

F2
3-4 Paragraphs

Pictorial Sensation — Large
Musical Sensation — Medium
Olfactory Sensation — Small

Application:

F1
3-4 lines

Pictorial — Large
Musical — Medium
Olfactory — Small

Amends the scale of two elements in relation to one another. Creates a greater gap between two points.

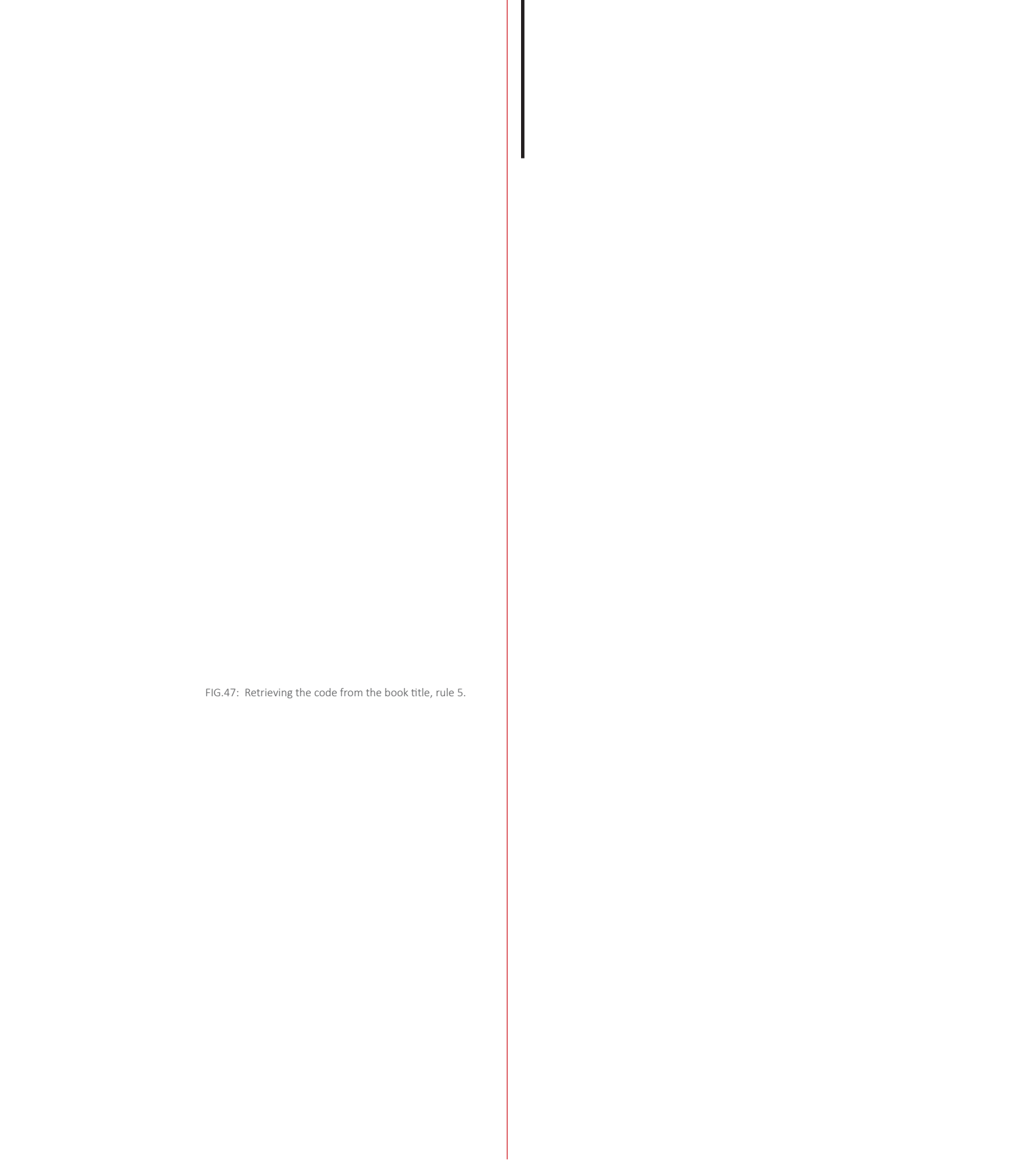


FIG.47: Retrieving the code from the book title, rule 5.

74 and finally the onomatopoeia translations (rule 5).

Linguistic Rule 5:

Onomatopoeia (Force & Depth)

FIG.35 Rule 5: Onomatopoeia

Research:

Force and Depth

Critical writings.

E. T. Marinetti, 2006.

In conjunction with the Onomatopoeia rule we can vitalize lyricism through architecture. By expressing with force and/or through the repetition of architectural elements, we can recreate this typographical understanding.



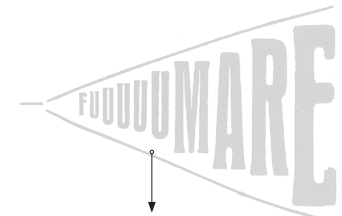
In Words-in-Freedom we must totally eradicate everything that does not aspire to express the fleeting, mysterious Futurist sensibility by means of this most innovative geometrical and mechanical splendor. The free-wording poet Cangiullo in "Fumatori II" (Second-Class Smokers Carriage) was very successful in suggesting the long, monotonous flights of fancy and the outward spreading of smoke-boredom experienced on a long train journey, with this **TYPOGRAPHICALLY DESIGNED IMAGE**.¹⁰

In their continuous attempts at expression through maximum force and depth, Words-in-Freedom are naturally transformed into **AUTO-ILLUSTRATIONS** by means of freely expressive orthographical and typographical forms, the synoptic tables of lyrical values, and typographically shaped analogies, as for example the typographically designed balloon in my *Zang Tumb Tumb*.¹¹ As soon as this higher form of expression is achieved, Words-in-Freedom go back to their normal, habitual flow. Moreover, the synoptic tables of values are the foundations of criticism using Words-in-Freedom (see, for example, "Bilancio 1910-1913" [Balance Sheet 1910-1913] by the free-wording poet Carrà).¹²

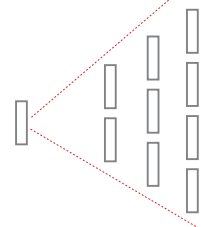
FREELY EXPRESSIVE ORTHOGRAPHY AND TYPOGRAPHY ALSO HAVE THE FUNCTION OF RENDERING THE FACIAL EXPRESSIONS AND OTHER GESTURES OF THE NARRATOR.

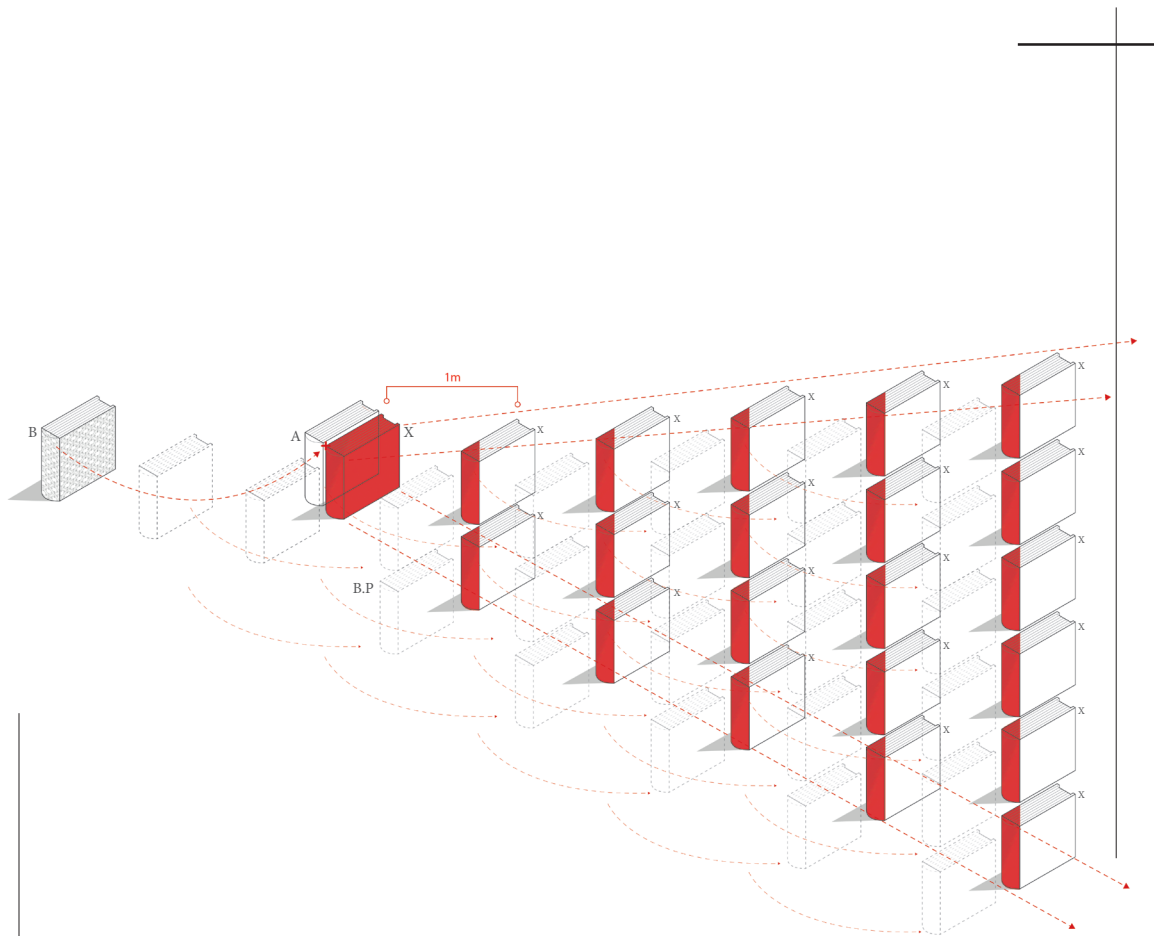
Application:

Force & Depth through **onomatopoeia** -
Repositioning of space at 1 meter distances. Number of spaces depicted by letters within word.



Arrays components at equal distances whilst adding a component with each onomatopoeiac letter used in the word.





Poetic Rule:

Force & Depth through **onomatopoeia**- words that sound in some way similar to the objects or events to which they refer. Typography.

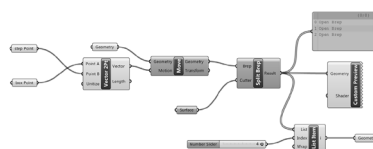


Book Specifications:

Zang Thumb Thumb

Onomatopoeia-Displacement of books at 1 Meter with gradual increase in number dependent on character letters.

Poetic Rule Algorithm:



Key:

- A: Exiting/Allocated book
- B: New book
- X: New book position
- B.P: New book-propositional

Onomatopoeia- Force & Depth
Rule application

The aesthetic outcome illustrates a range of different configurations where one example uses 3 books in a horizontal arrangement and another utilizes 6 books showing a vertical configuration. The system has given authorship to the languages to create a form through the amalgamation of books (components), illustrating a different width and length between the combinations, however, when placed together this difference is lost as it is not possible to tell one outcome apart from another(fig.48). They all have the same materiality, a book that lends no different visibility to the communities, as they are unidentifiable in the outcome. Therefore, the aesthetics does not communicate their cultural value and has not spatially developed architectural form that can be inhabited or used. Although the books have been arranged on the space of a page, in the real world with no evidence of structural support these components would not stand in the positions allocated. This test is successful because it has given the system authorship but has failed to develop an architectural form. However, if this system was not applied to a component prescribed by myself, but tested to create new components, It would be possible to explore whether this authored system can create architectural form that can be inhabited and used, thus creating an architecture for the community.

TEST A

At this point, I have developed a rule-bound system that applies the linguistic rules to the languages on site. However, I have failed in creating an architectural form for each community that illustrates an aesthetic outcome of difference. Therefore, I look to testing Eisenmans theories on layering on architectural components to investigate how to develop an aesthetic outcome of difference. In this test I will explore the grid split system illustrated in part I.







The process uses the book titles from each language on site to achieve the location of the architectural components (as the previous experiment), however these are now points on a grid joined by lines(fig.49-53). Consequently, this has been applied to site planes such as the ground, roof and elevation, as the amalgamation of these points joined by lines result in an architectural form(fig.49-53). Therefore, the architectural components are the grid, the nodal points and the resulting lines drawn between these.



FIG.49-53: Transfer of book title rule translation to points on a grid.

Linguistic Rule 1: Nouns (Second Terms)

Research:

Sadness	=		+	
Hunger	=		+	
Lust	=		+	

The Kuleshov effect

is a film editing (montage) effect demonstrated by Soviet filmmaker Lev Kuleshov in the 1910s and 1920s. It is a mental phenomenon by which viewers derive more meaning from the intersection of two sequential shots than from a single shot in isolation.

However, Marinetti wanted to create an effect of dissonance between the images. It is the logic of the illogical.

Poetry of "second terms"

The idea of "linking" the object directly with the image that it evokes (Malraux 1912c: 108) and of condensing every analogy into "a single essential word" led Marinetti to theories not only on analogies in prose but also on analogies that present both the object and the image evoked by the object, that is, both the cause and the vehicle, but also analogies in character (that is, analogies that "hide" the more presenting only the vehicle). From the very beginning, he conceived of an analogical poetry composed entirely of vehicles or "second terms". "Suppose we shall invent what I call wireless imagination. We shall arrive, one day, at an art that is even more essential, when we have dared to suppress all the first terms of our analogies so as to give nothing more than the autonomous second terms. (Marinetti 1912c: 117). Marinetti proposed to shorten the chains of double nouns (A-A' B-B' C-C' D-D') into basic chains, which would contain only the second terms of the analogies (A, B, C, D). For example, the analogical phrase "butane-moons" (butane-moons) made sense (1912c: 117). And a little further on, he continues: "I prefer to an illogical sequence which is no longer explanatory, but creative, in the use of only the second terms of my analogies, all disconnected only from the object and very alien of exposing meaning, one to another." (Marinetti 1912c: 117). Here one can compare with Paul Cézanne, who in 1919 observed that "to apply Marinetti's aesthetic to the art of the screen would be a logically justified aesthetic" (Gobetti 1919: 89). Marinetti's mistake was that he developed his new aesthetic in literary terms, that is, for the written medium. According to Gobetti, "you have lost all the characteristics that Marinetti would like to create in poetry". And he adds: "There, one finds word and syntax, clarity of the physical element over psychology, the clarity of sensation, the precision of nature. Marinetti got rid of this and believed he could introduce it into literature. From there, came a kind of exalted mechanism, a chaos, a confusion." (Gobetti 1919: 89).

"To apply Marinetti's aesthetic to the art of the screen would be a logically justified aesthetic."
Gobetti, Piero, 1919

Application:

A - A' : STEP - LIGHT
B - B' : PARALLEL - WALLS
C - C' : COUNTER - SINK
D - D' : WINDOW - PANES

A-A, B-B, C-C, D-D

A-A, B-B, C-C, D-D

A, B, C, D

An analogical poetry composed entirely of "Second Terms" together we shall invent what I call wireless imagination. Shorten the chains of double nouns (A-A, B-B, C-C, D-D) into basic chains which contain only the second terms of analogies (A, B, C, D).

Application of Linguistic rules:

Italian Grammar: Barron's Grammar Series

Adjective	Noun	:	Noun	Noun	Noun
Pictorial	N	:	N	N	N

P : N N

Rule 1: Nouns (Second Terms)
Vector Translation

(A - A', B - B')

Noun B - B'

Noun A - A'

(A - A', B - B')

(A, B)

Noun A, B

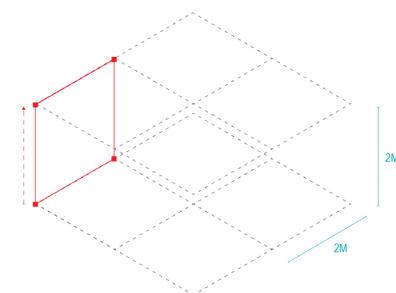
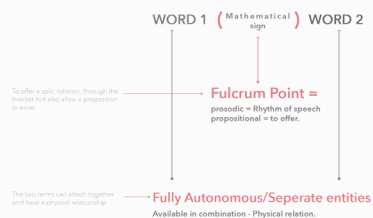


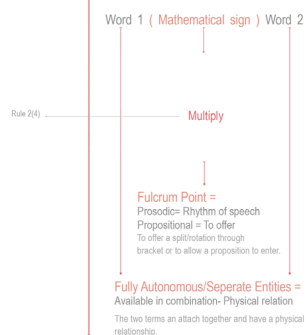
FIG.49: The translation of the noun in a book title (rule 1).

Research:

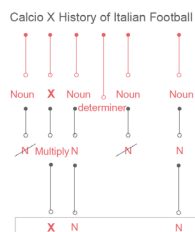
The piece conforms to Marinetti's image of a 'modern' language, a language designed for speed, unencumbered with the baggage of connotations, denotations, qualifications, and descriptive excesses. This was a mechanical language with a few well-mannered parts, put at the service of analogy and its full force. Marinetti also made the point that the force he envisioned in analogy was an ethical force, a language freed from the logic imposed by normal moral standards. The language of the futurists was a language of the future in the way in which words, disposed at random, or at least, freed from the linear confines of punctuation, might. The use of the mathematical notation at first glance suggests mere substitution of, for instance, the sign (=) for the word (equal). In fact, a different relation is actually posed by the sign that normally has no meaning in the language of the futurists. The sign (=) is a sign that is balanced across a fulcrum point and thereby is not, strictly speaking, linguistic; but rather, physical, even mathematical. Commenting on his procedure in this same work, Marinetti said:



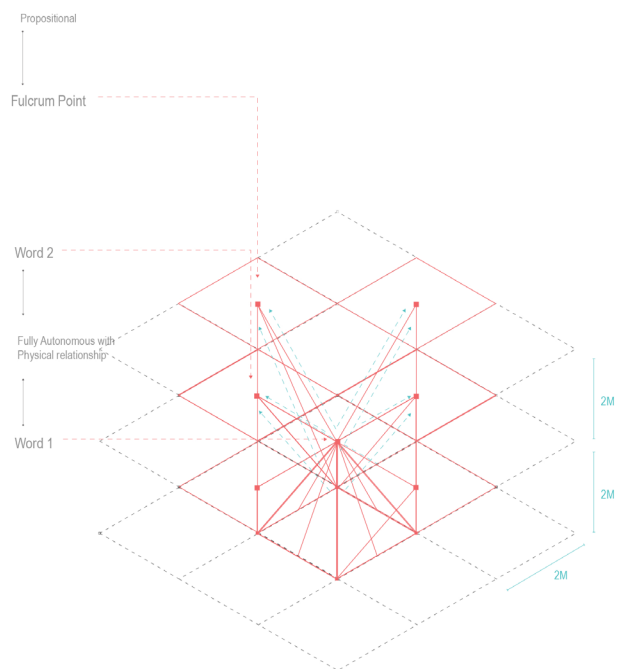
Application:



Application of Linguistic rules:



Rule 2: Mathematical Sign (Multiply)
Vector Translation



Algorithm:

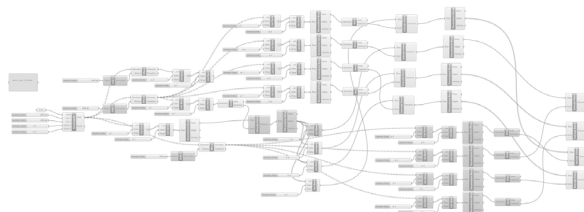
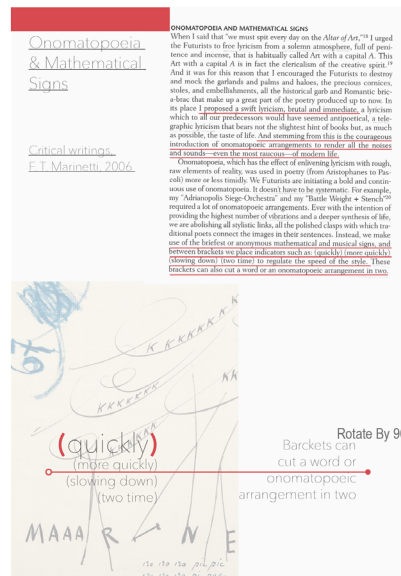


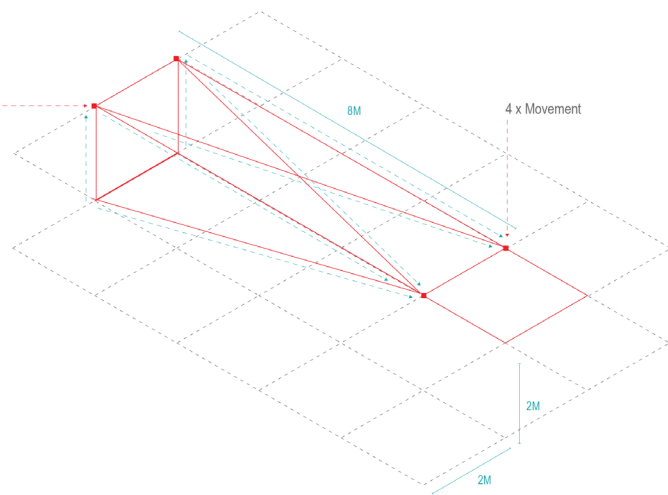
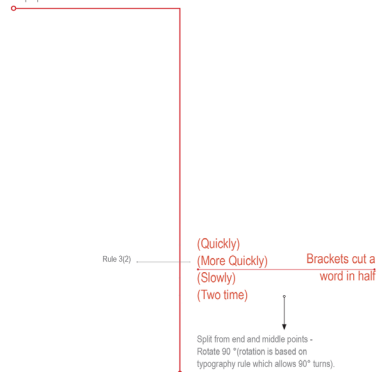
FIG.50: The translation of the signs in a book title (rule 2).

Adjectives/Verb (Regulate Tempo)

Research:

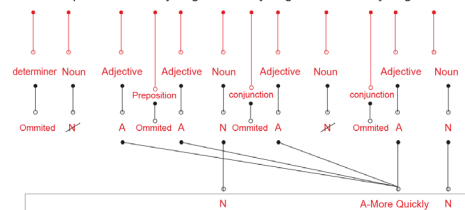


Application:



Application of Linguistic rules:

The simple education for young children & young adolescence & young adults



Algorithm:



Rule 3: Adjective/Verb (A/V - More Quickly)
Vector Translation

FIG.51: The translation of the adjectives or verbs in a book title (rule 3).

Linguistic Rule 4:
Multilinear Lyricism

Research:

Multilinear Lyricism

Critical writings:
F.T. Marinetti, 2006.

SCALE

F1
3-4 lines

Pictorial Sensation → Large
Musical Sensation → Small
Olfactory Sensation

F2
Paragraphs 3-4

Pictorial Sensation → Large
Musical Sensation → Medium
Olfactory Sensation → Small

MULTILINEAR LYRICISM[®]

Furthermore, I have devised a multilinear lyricism with which I succeed in obtaining that bricol simultaneity that observes the Futurist principle as well as multilinear lyricism, by means of which I am convinced I obtain the most complex lyrical simultaneities.

The poet hastily sets down on several parallel lines a number of strings of colors, sounds, smells, notes, weights, thicknesses, and analogies. One of these lines will, for example, be olfactory, another musical, and yet another pictorial.

Let's just suppose that the string of pictorial analogies dominates other strings of sensations and analogies. In this case, it will be printed in larger characters than those of the second and third lines (one of which contains, for example, the string of musical sensations and analogies, while the other has that of olfactory sensations and analogies).

On a page containing many batches of sensations and analogies, each one of which is made up of three or four lines, the string of pictorial sensations and analogies (printed in large characters) will take the first line of the first batch and will continue (always with the same size characters) as first line of all subsequent batches.

The series of musical sensations and analogies (second line), being less important than the chain of pictorial sensations and analogies (first line), but more important than that of the olfactory sensations and analogies (third line) will be printed in characters that are not as big as those of the first line, though bigger than those in the third line.

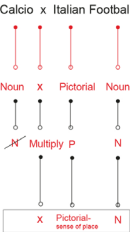
Application:

F1
3-lines

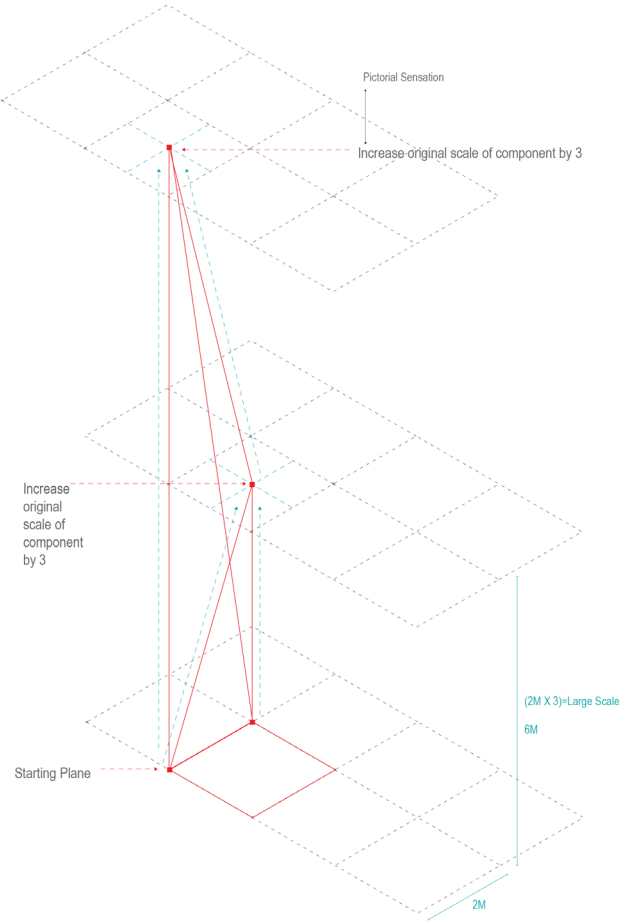
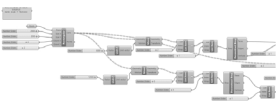
Pictorial → Large
Musical → Small
Olfactory

Amends the scale of two elements in relation to one another. Creates a greater gap between two points.

Application of Linguistic rules:



Algorithm:




Rule 4: Multilinear Lyricism (Pictorial)
Translation example on existing move
Vector Translation

FIG.52: The translation of the pictorial association of words in a book title (rule 4).

Linguistic Rule 5:
Onomatopoeia (Force & Depth)

Research:

Force and Depth



Critical writings:
F.T. Marinetti, 2006.

In Words-in-Freedom we must totally eradicate everything that does not aspire to express the fleeting, mysterious Futurist sensibility by means of this most innovative geometrical and mechanical splendor. The free-wording poet Cangullo in "Fumatteri II" (Second-Class Smokers Carriage) was very successful in suggesting the long, monotonous flights of fancy and the outward spreading of smoke-boredom experienced on a long train journey, with this **TYPOGRAPHICALLY DESIGNED IMAGE**.¹⁰


In their continuous attempts at expression through maximum force and depth, Words-in-Freedom are naturally transformed into **AUTO-ILLUSTRATIONS** by means of freely expressive orthographical and typographical forms, the synoptic tables of lyrical values, and typographically-shaped analogies, as for example the typographically designed balloon in my Zang Tumb Tumb.¹¹ As soon as this higher form of expression is achieved, Words-in-Freedom go back to their normal, habitual flow. Moreover, the synoptic tables of values are the foundations of criticism using Words-in-Freedom (see, for example, "Bilancio 1910-1917" (Balance Sheet 1910-1917) by the free-wording poet Carrà).¹²

FREELY EXPRESSIVE ORTHOGRAPHY AND TYPOGRAPHY ALSO HAVE THE FUNCTION OF RENDERING THE FACIAL EXPRESSIONS AND OTHER GESTURES OF THE NARRATOR.

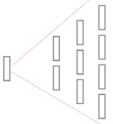
In conjunction with the Onomatopoeia rule we can vitalize lyricism through architecture. By expressing with force and/or through the repetition of architectural elements, we can recreate this typographical understanding.

Application:

Force & Depth through onomatopoeia -
Repositioning of space at 1 meter distances. Number of spaces depicted by letters within word.

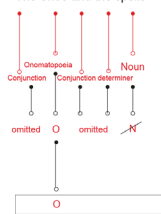


Arrays components at equal distances whilst adding a component with each onomatopoeic letter used in the word.

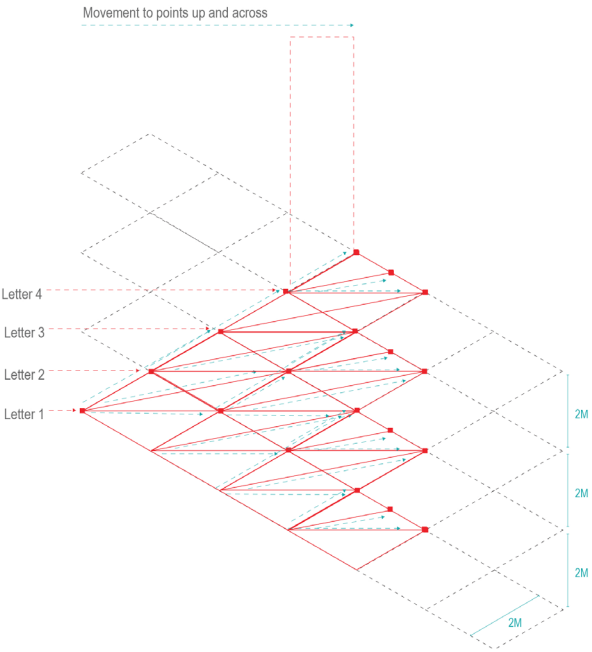


Application of Linguistic rules:

The Shoo and the spells



Rule 5: Onomatopoeia
Vector Translation



Algorithm:

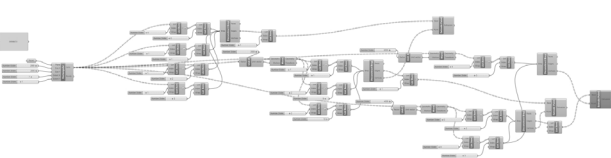



FIG.53: The translation of onomatopoeias in a book title (rule 5).



Consequently, this has been applied to site planes such as the ground, roof and elevation, as the amalgamation of these points joined by lines result in an architectural form(fig.54-56). Therefore, the architectural components are the grid, the nodal points and the resulting lines drawn between these.

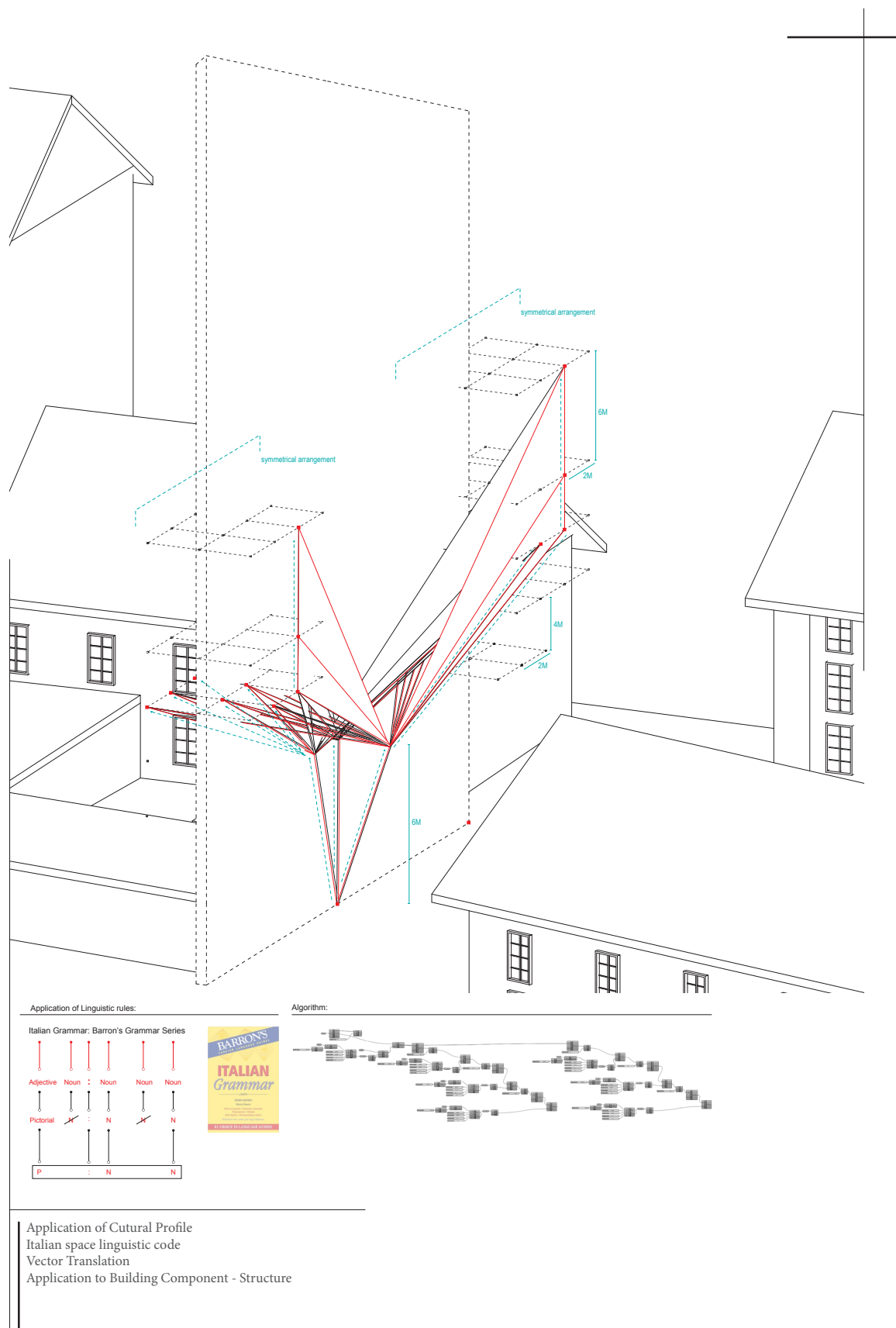


FIG.54 A: The book titles of the Italian community applied to the elevation plane.

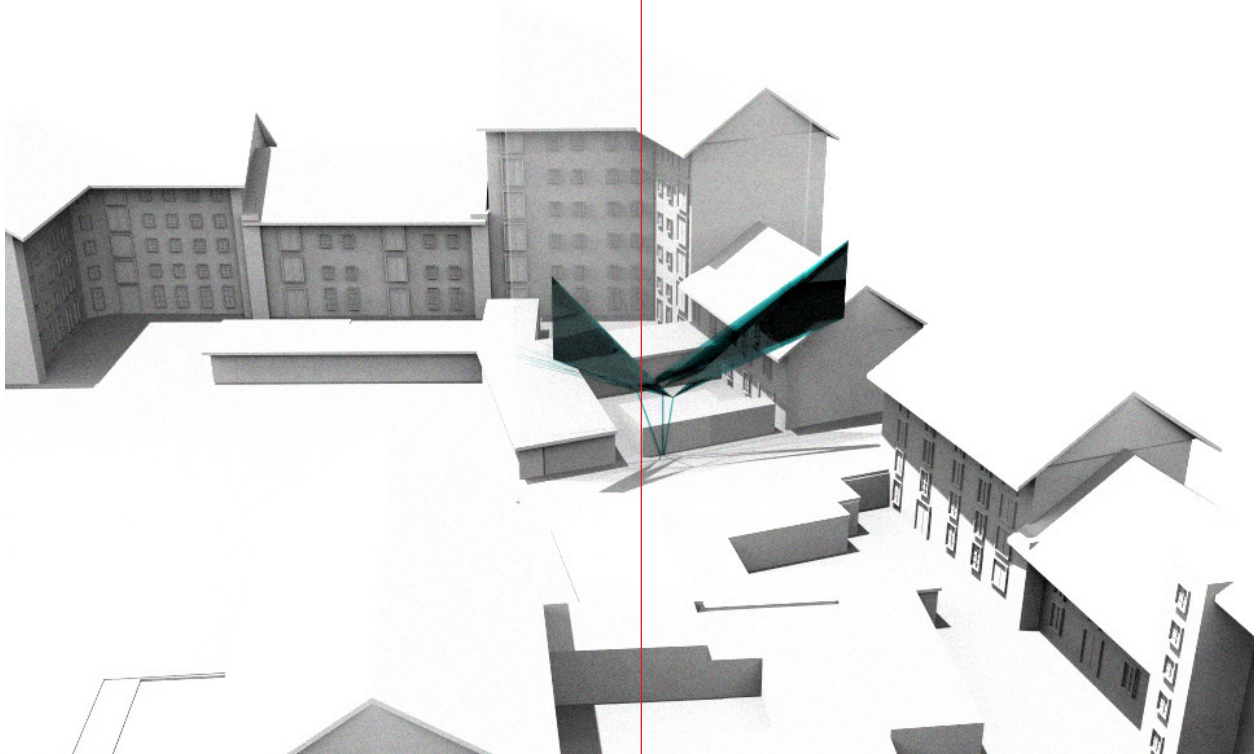


FIG.54 B: The form illustrates a structural component that could start supporting an architectural proposal.

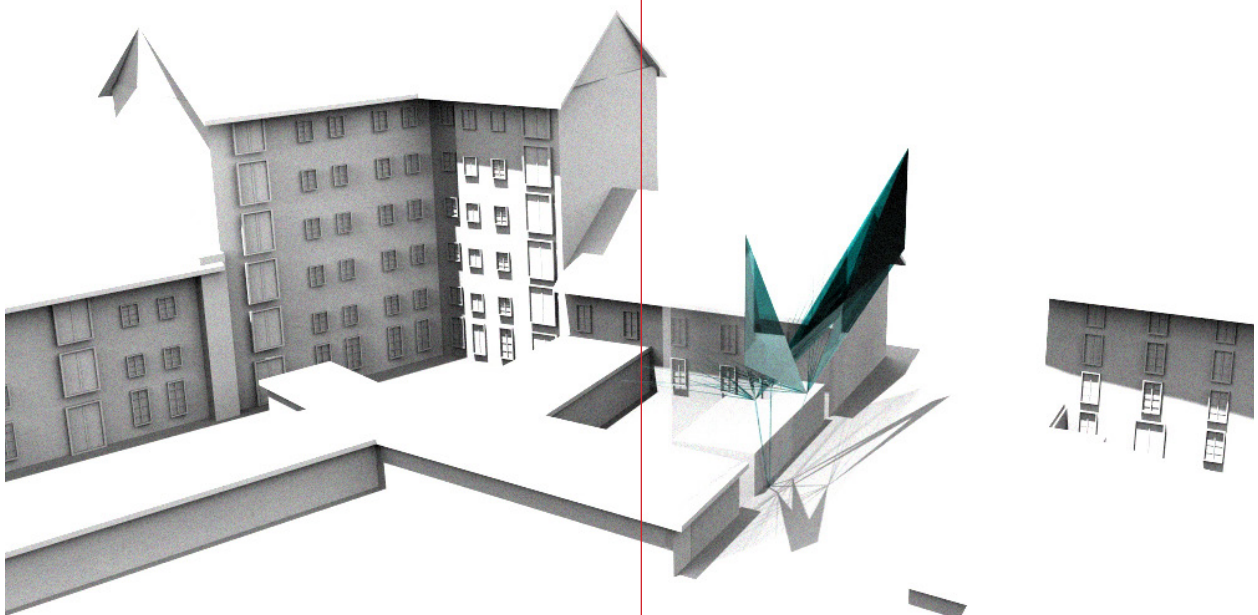


FIG.54 C: The profile created by the Italian language.

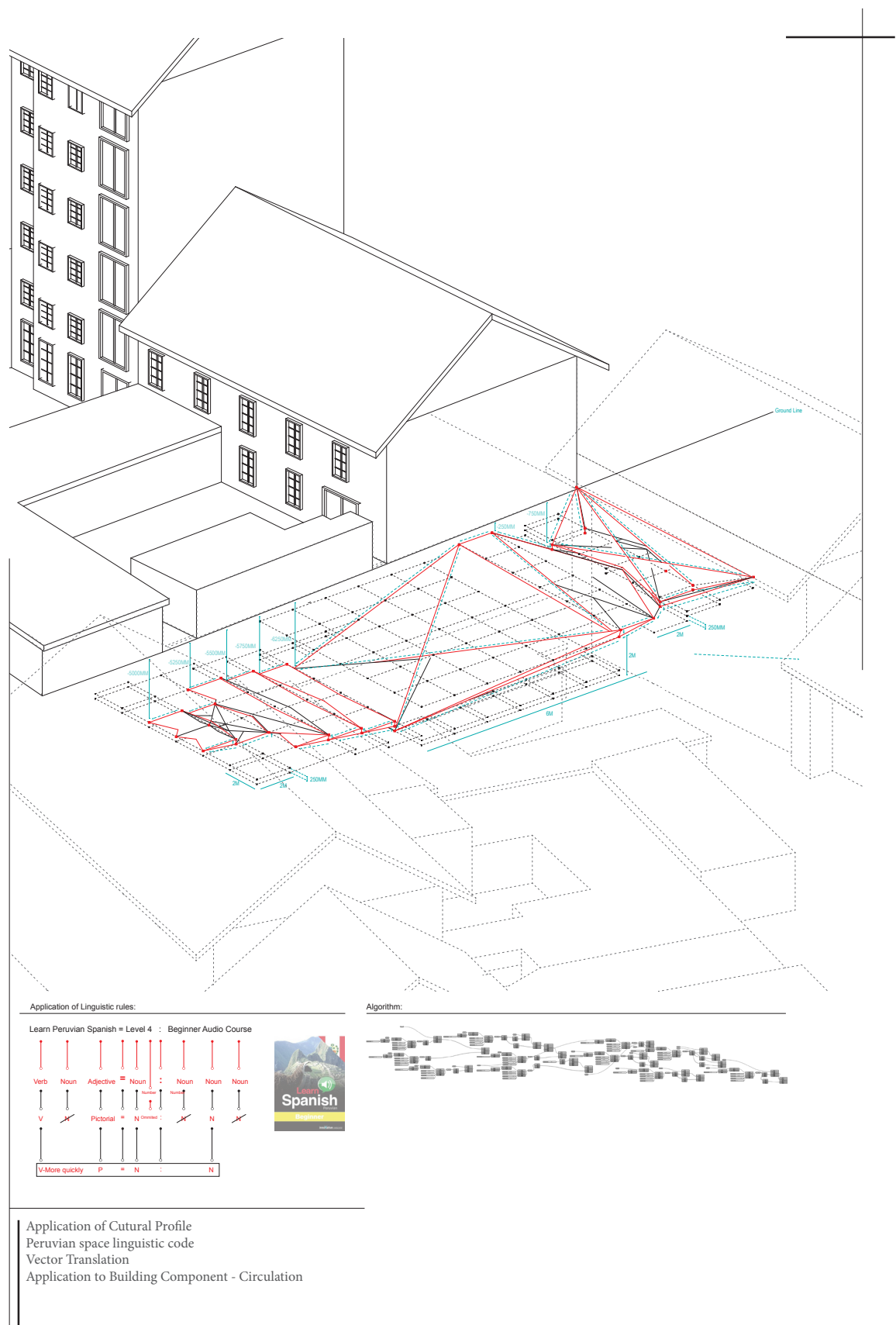


FIG.55 A: The books of the Peruvian community applied to the ground plane.

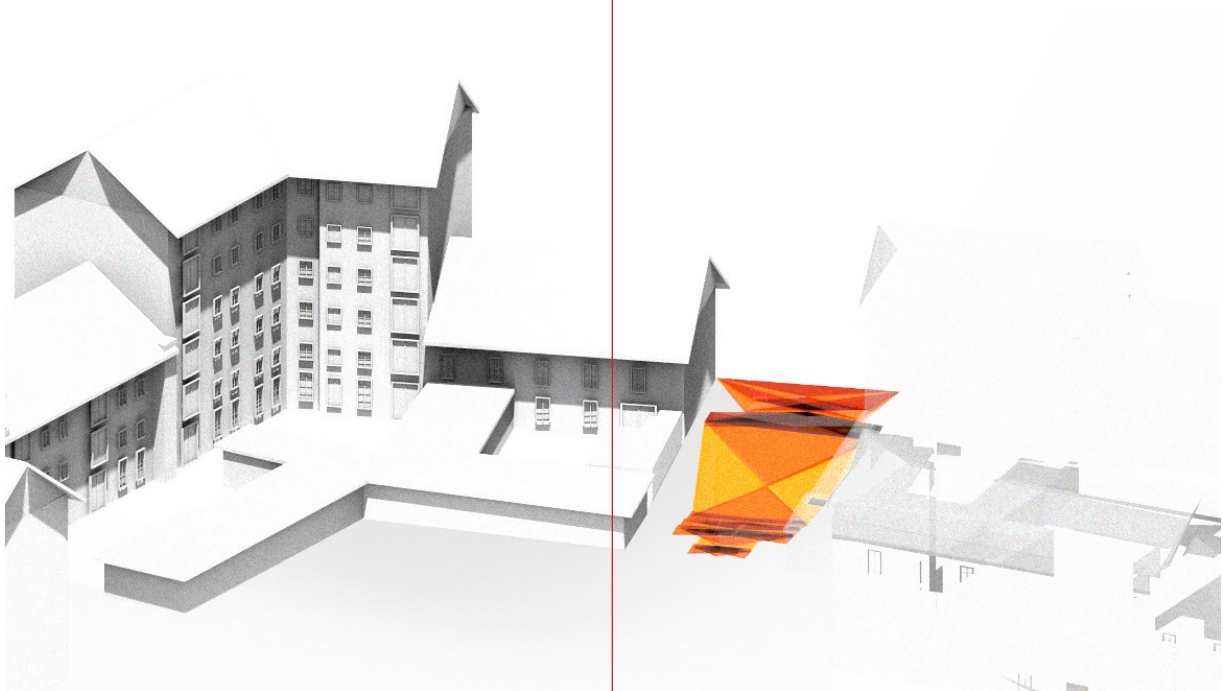


FIG.55 B: The form illustrates steps and protrusions where pockets of space can be inhabited.

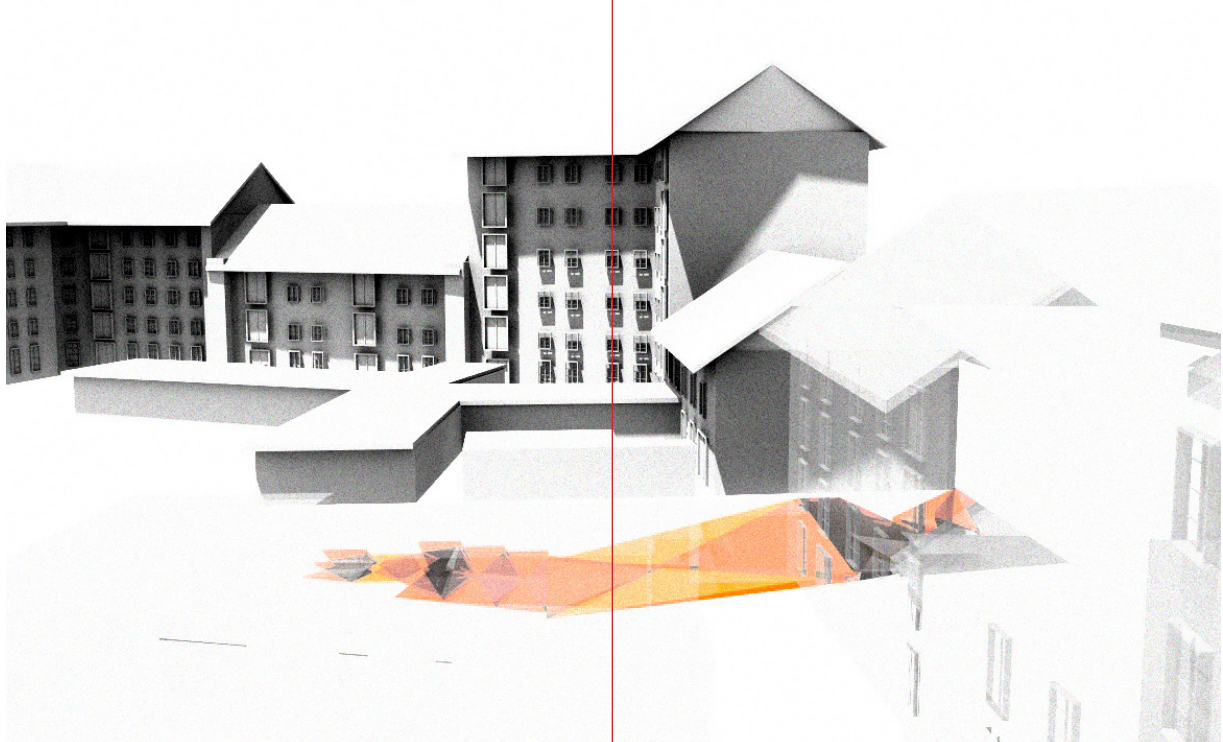


FIG.55 C: The profile of the Peruvian community.



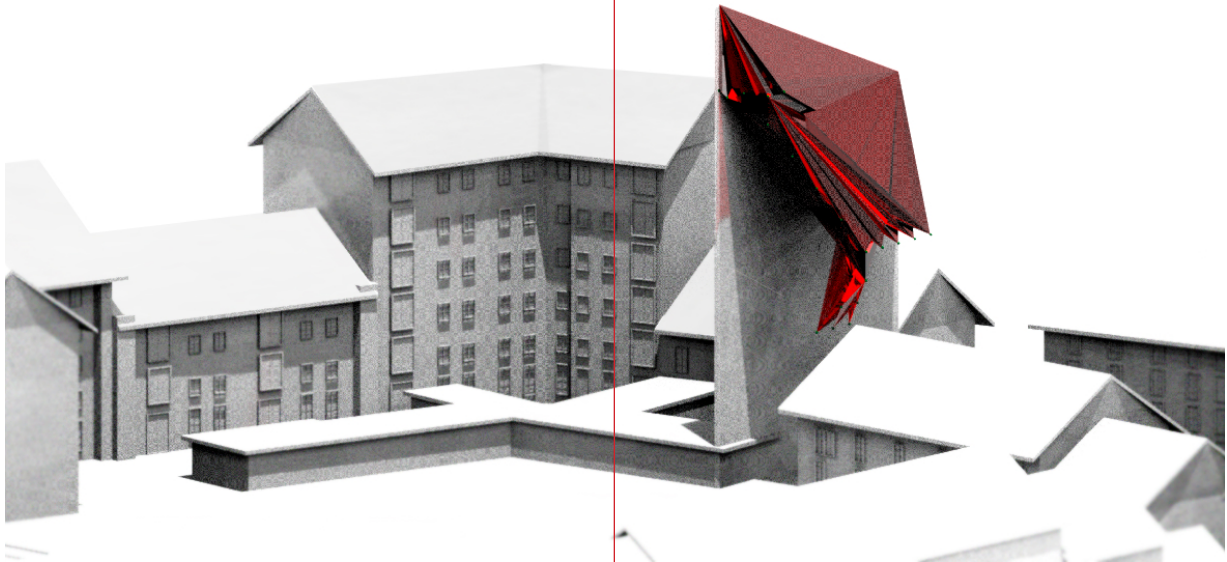


FIG.56 B: The form illustrates preferences where light planes could penetrate a space below.

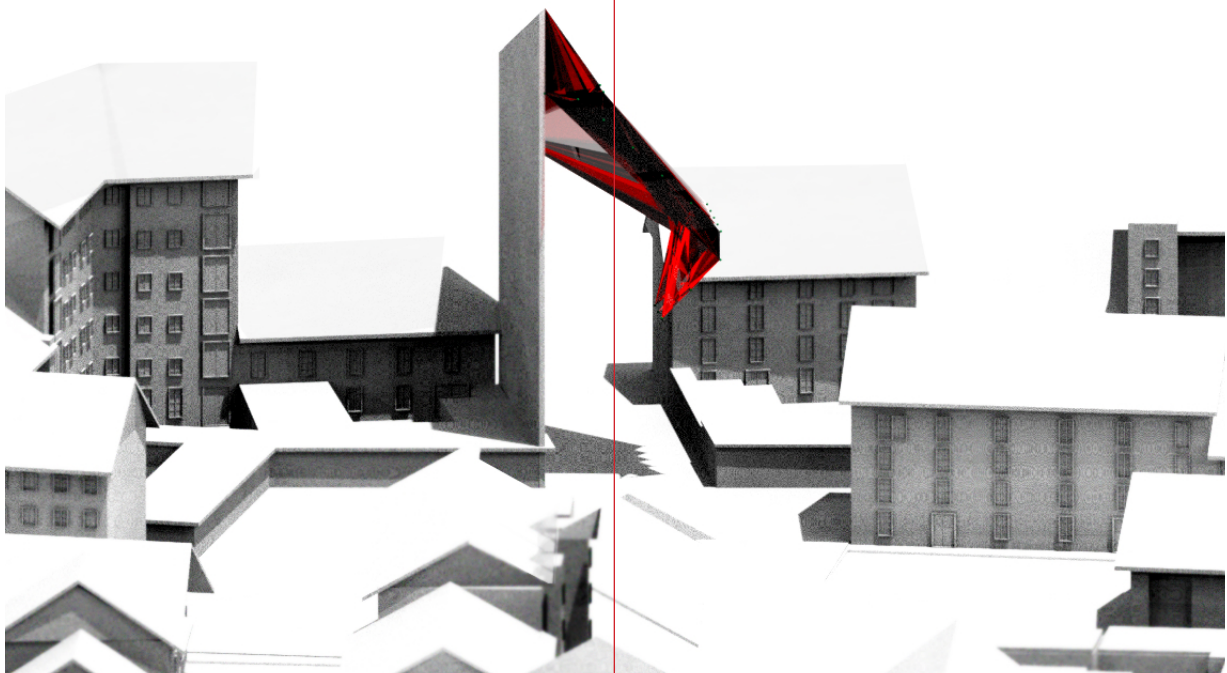


FIG.56 C: The profile created for the Moroccan community .

The aesthetic outcome is illegible as I have chosen which community will represent the different building planes projecting the power dynamic that I believe is appropriate and creating a misguided representation of the communities. As a result the Peruvians are occupying the ground plane, the Italians are the structure (elevation) and the Moroccans are the roof planes. I have reduced the authorship given to language by making design decisions. The aesthetic outcome In the Moroccan study has created planes that show the potential of allowing interesting forms of light to filter through if these were to be further developed into an architectural building. Whereas the Peruvian study manipulates the ground plane creating steps and playing with the levels. Finally the Italian study has created a structural element. All of which are interesting architectural outcomes. However the linguistic process has not identified materiality so that we can understand which plane would be a window or a wall or even more specifically down to the actual material of the wall or ground. Consequently, I have developed geometry that can be developed into legible architecture, however there are still no evident spaces that can be inhabited. In addition, when applying this understanding of the grid to the overall site, the forms produced are again similar(fig.57-58). Thus, there is little cultural value in each of the outcomes.

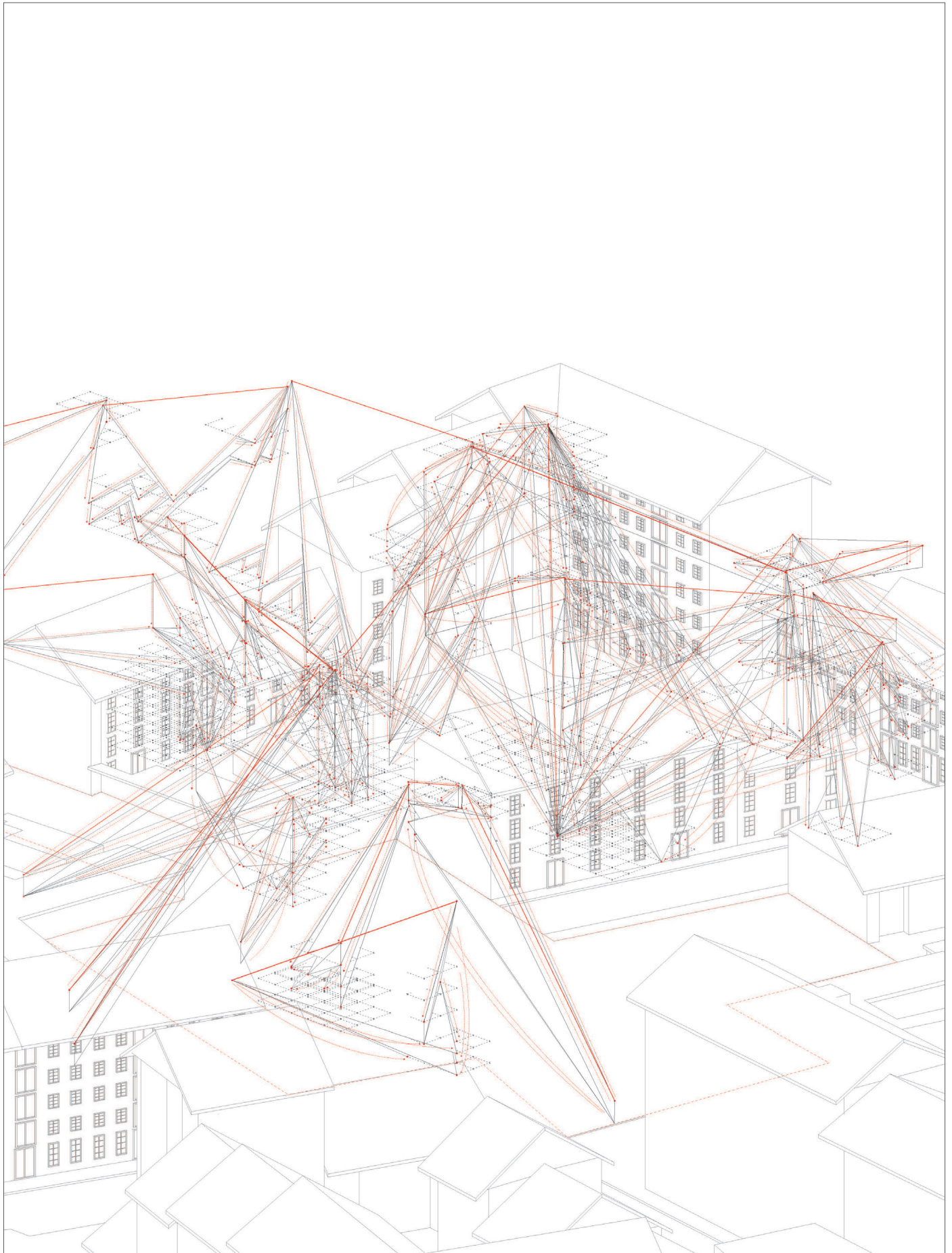


FIG.57: The form produced from the Moroccan book titles and language- applied to the roof plane on site.

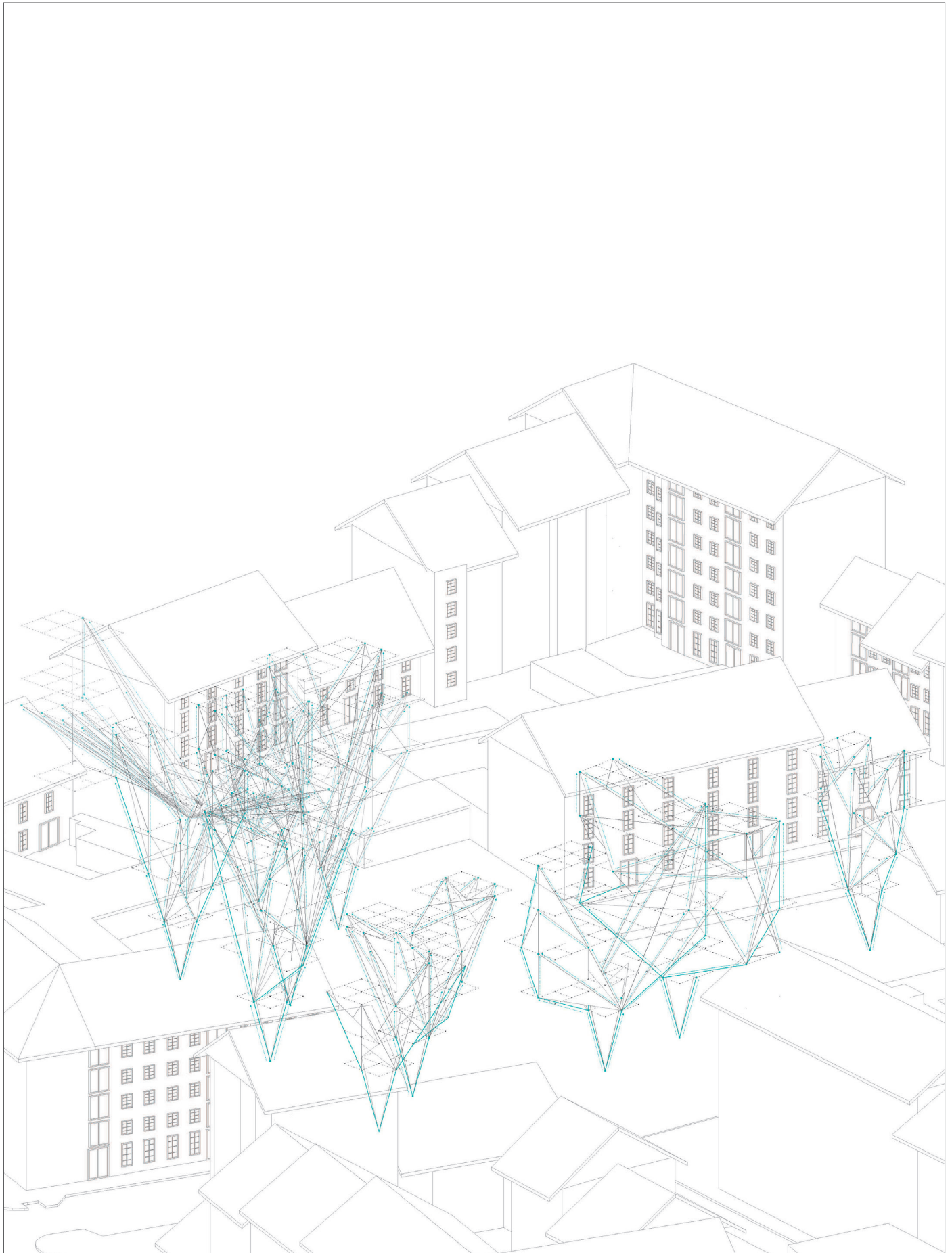


FIG.58: The form produced from the Italian book titles and language- applied to the ground plane on site.

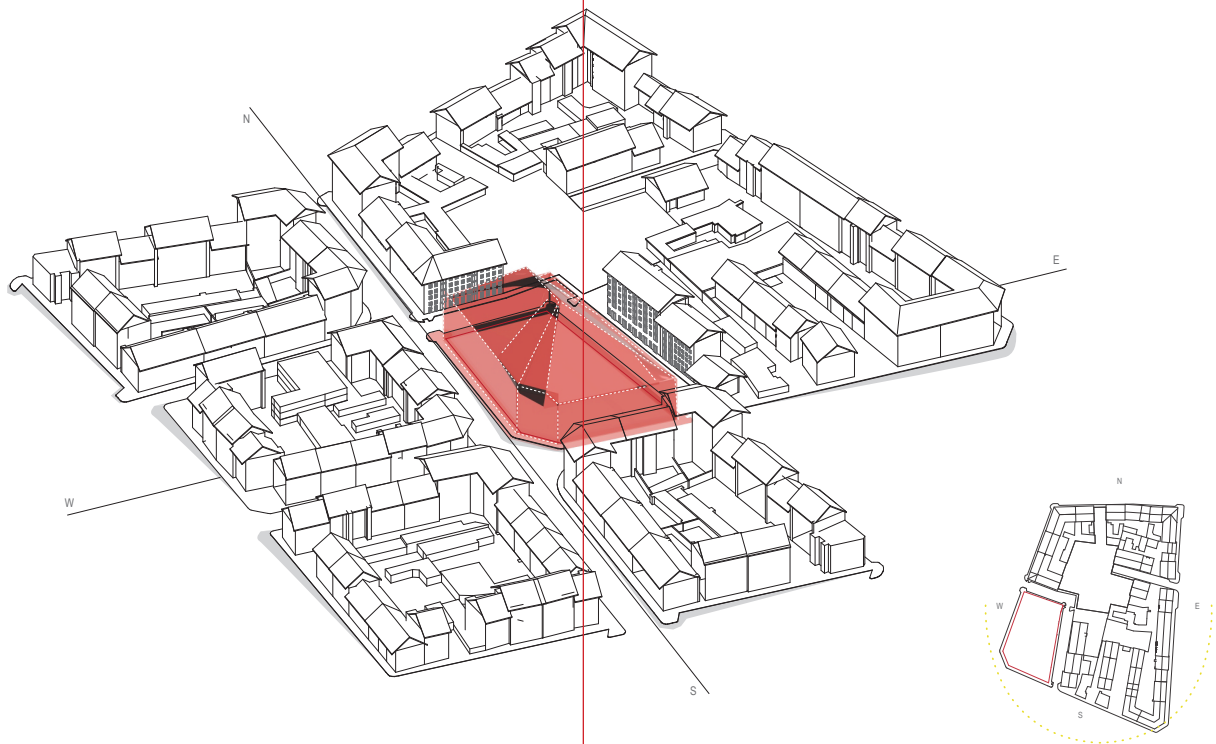








FIG.59: The *reference point* (site light study).

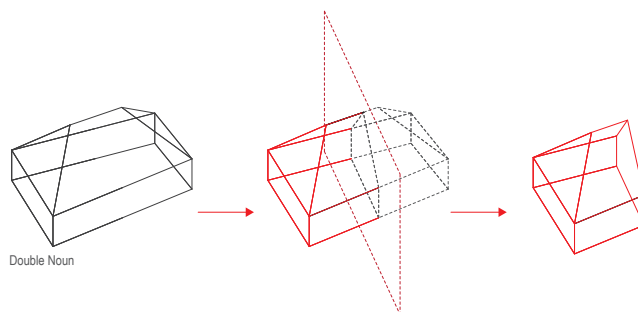
Futurist Literary Rules- 1 & 2:

Linguistic Rule 1:-
Nouns (Second Terms)

Research:

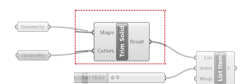
Sadness	=		+	
Hunger	=		+	
Lust	=		+	
The Kuleshov effect <small>Photograph of "sadness"</small>				

Vector Translation (Applied to maximum building volume, based on site understanding):



Grasshopper agent that has been applied for

Futurist Translation: To shorten nouns



Grasshopper agent: Solid Trim

FIG.60: Rule 1 application of the grasshopper agent to change the form of the *reference point*.

TEST B

The previous experiment conveyed that the grid split system used to develop the architectural form was not appropriate for the design outcomes required in the study of this thesis. Therefore, I am going to test the second example illustrated in section 1, which is beginning from the same reference point.

The reference point is a site light study, which can be understood as the maximum buildable volume on site as determined by a 45° line from each midpoint of the surrounding site windows(fig.60). In order to be able to create architectural form from this reference point I have introduced a grasshopper agent (a systemized command), which are commands that transform the reference point in accordance to the rules. Therefore, Rule 1: noun, rearranges nouns by shortening them. The grasshopper agent for this rule is cut (in half), as a result cutting the reference point in half(fig.59). The same understanding is applied for rules 2 to 5(fig.61-62). In turn, a domino affect is created where each rule affects the outcome of the previous rule, thus, creating an architectural representation that is unique for each community.

Grasshopper agent: **Mirror**

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In Wanda in Frankfurt we must actually create everything that we do not aspire to express: the theoretical, systematic, Futurist sensibility by means of film's most innovative geometrical and mechanical elements. The film's graphic design is a very conscious and original (Second-Land Southern) Campaign was very successful in suggesting the idea of a new type of architecture, a new type of urban planning of smoke-bombers experienced in long train journeys, with the **TYPOGRAPHICALLY DESIGNED IMAGE**. The film's graphic design is a very conscious and original (Second-Land Southern) Campaign was very successful in suggesting the idea of a new type of architecture, a new type of urban planning of smoke-bombers experienced in long train journeys, with the **TYPOGRAPHICALLY DESIGNED IMAGE**.

Onomatopoeia

Grasshopper agent: **Scale-** by one factor

95

The results highlight the difference of each form for: Albanian(fig.63)

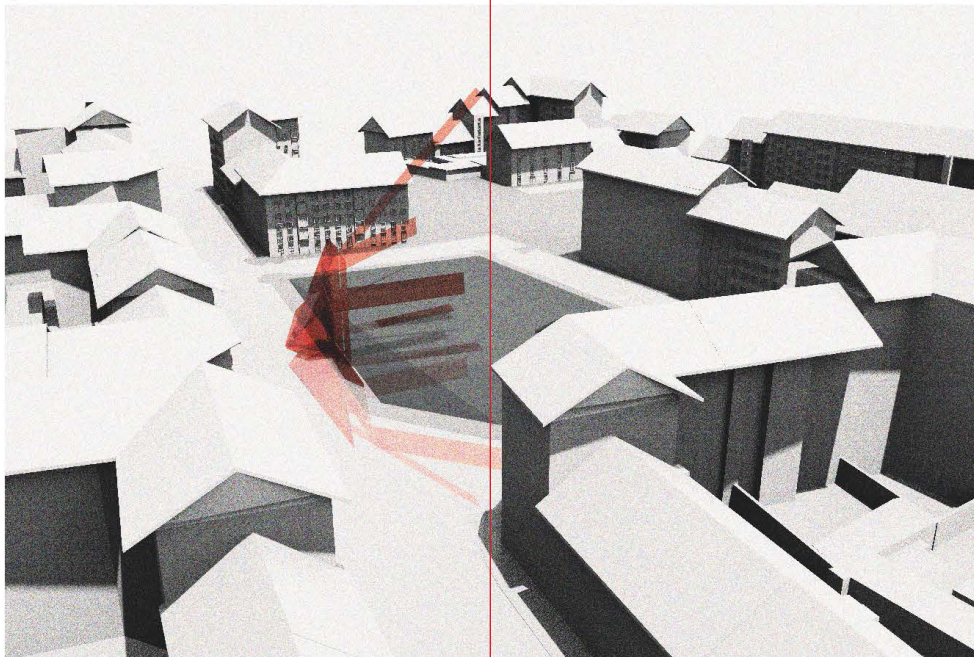


FIG.62 A: The form that represents the Albanians on site.

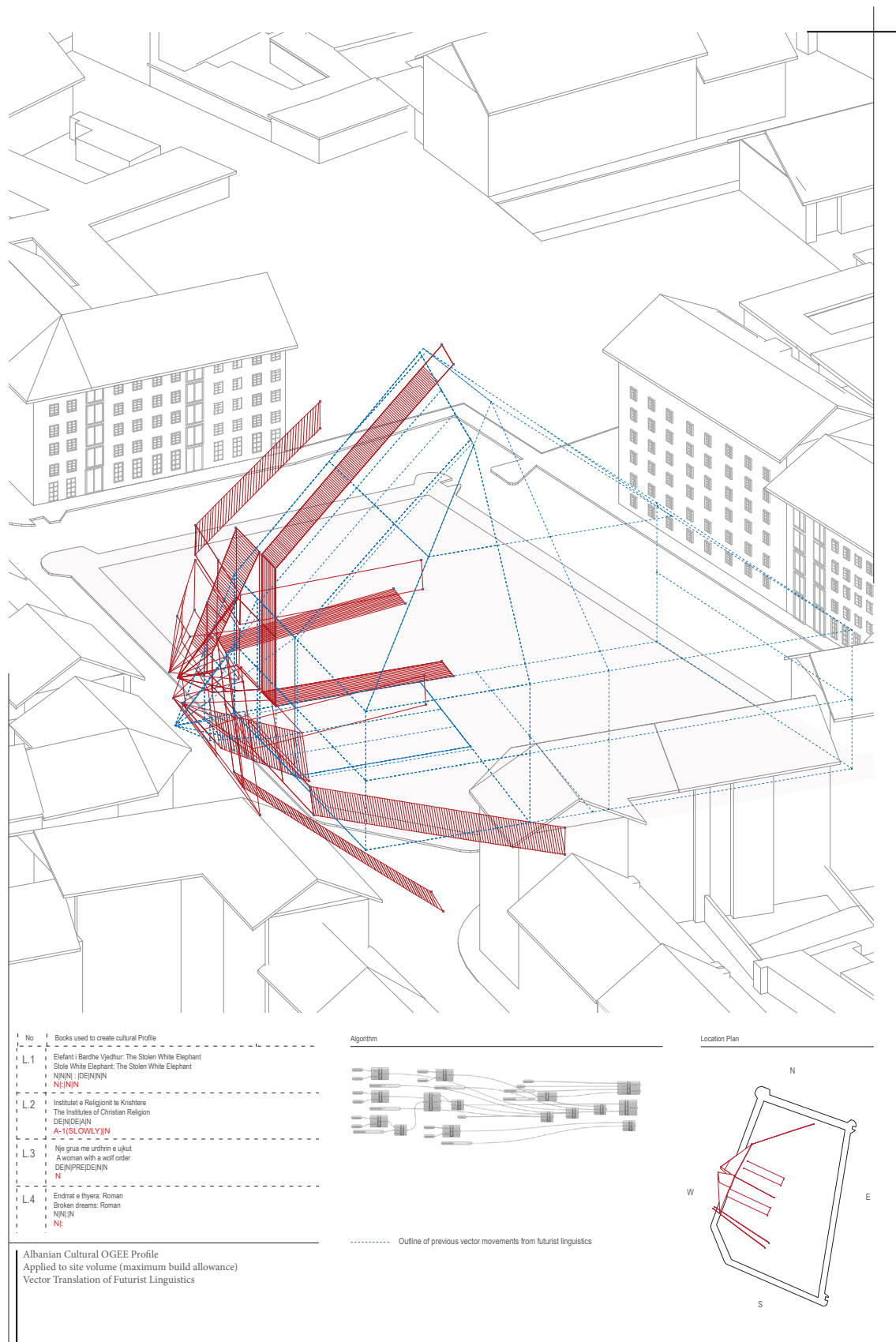


FIG.63 B: The language transformations (from the book titles using the system developed) to create the form.

Chinese(fig.64)

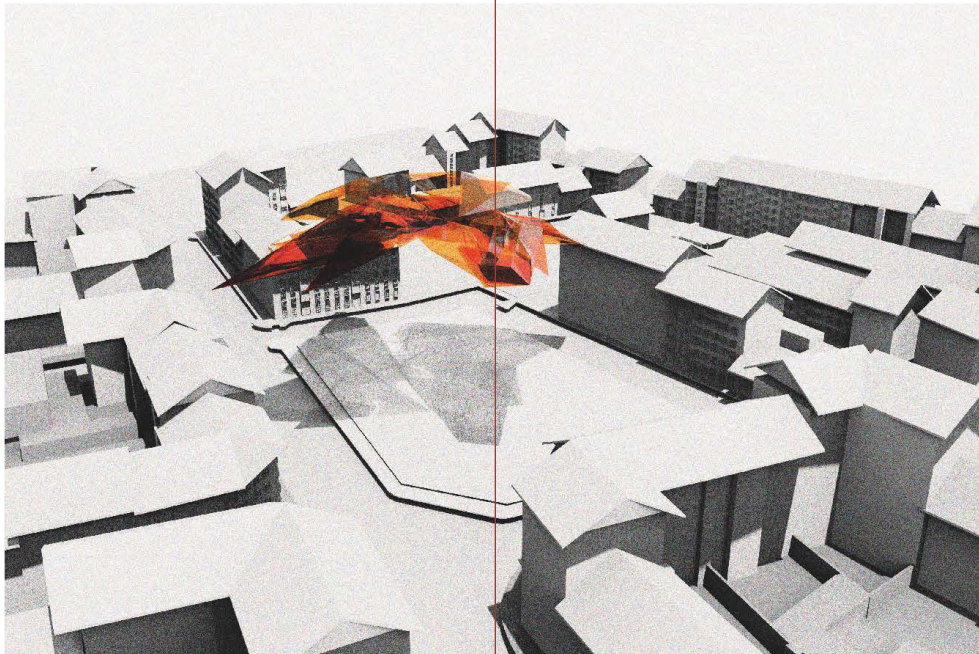


FIG.63 A: The form that represents the Chinese on site.

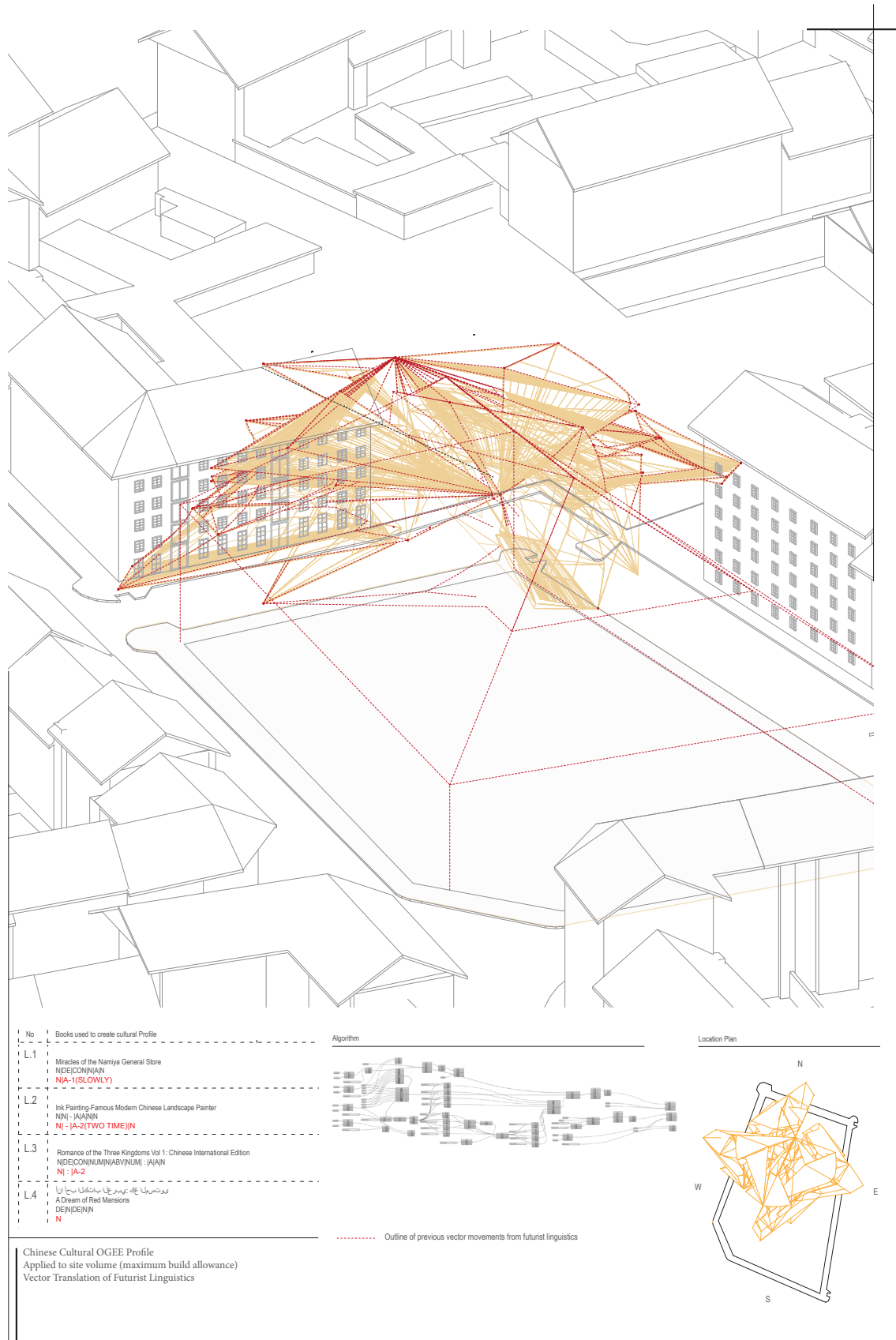


FIG.64 B: The language transformations (from the book titles using the system developed) to create the form.

Italians(fig.65)

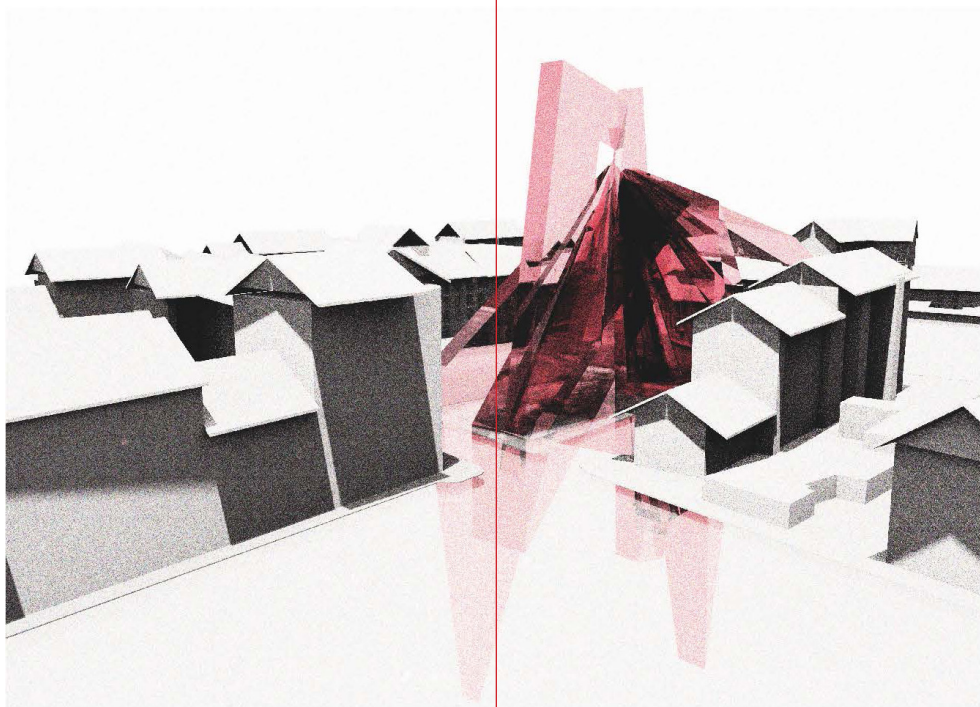


FIG.64 A: The form that represents the Italians on site.

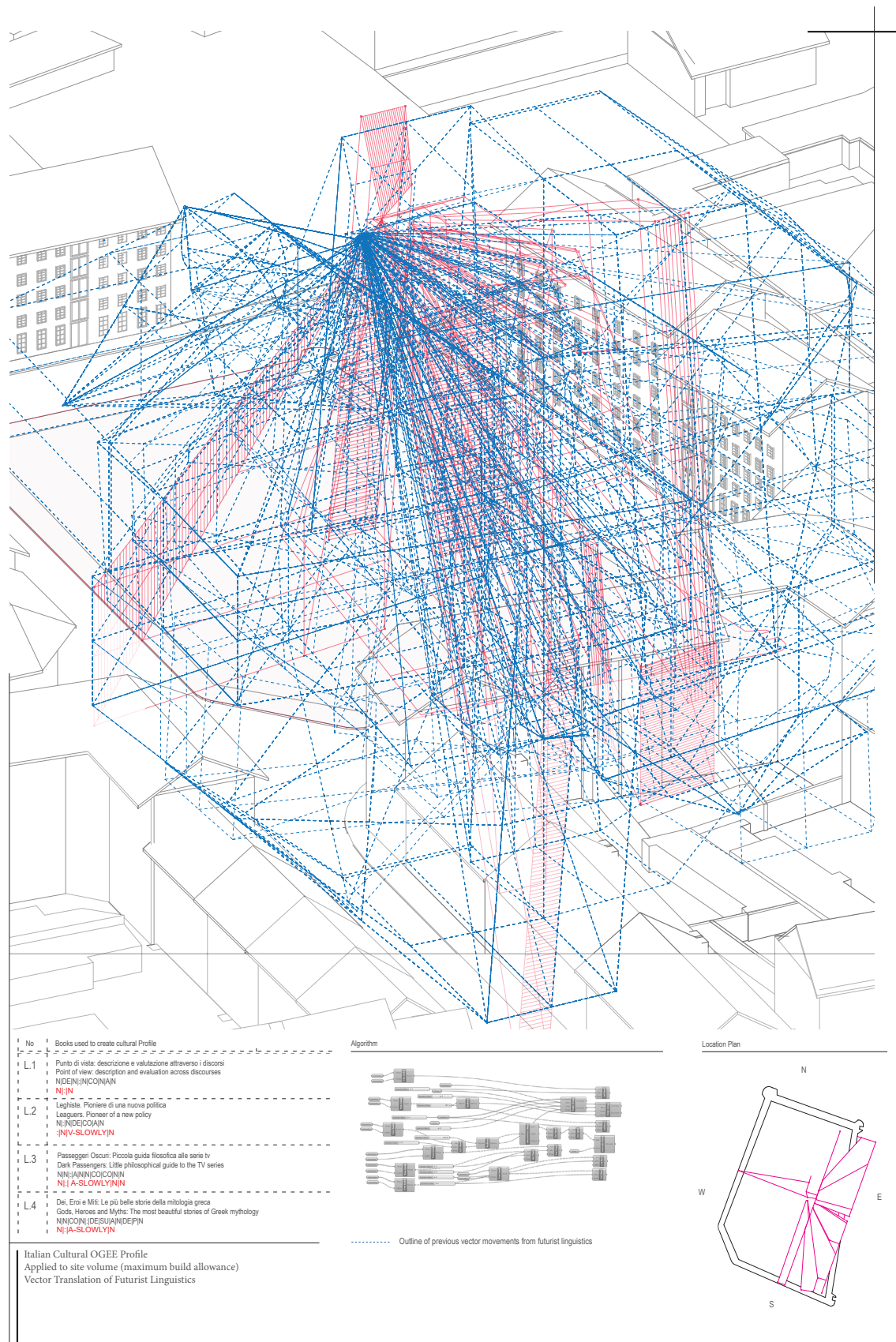


FIG.65 B: The language transformations (from the book titles using the system developed) to create the form.

Moroccan(fig.66)

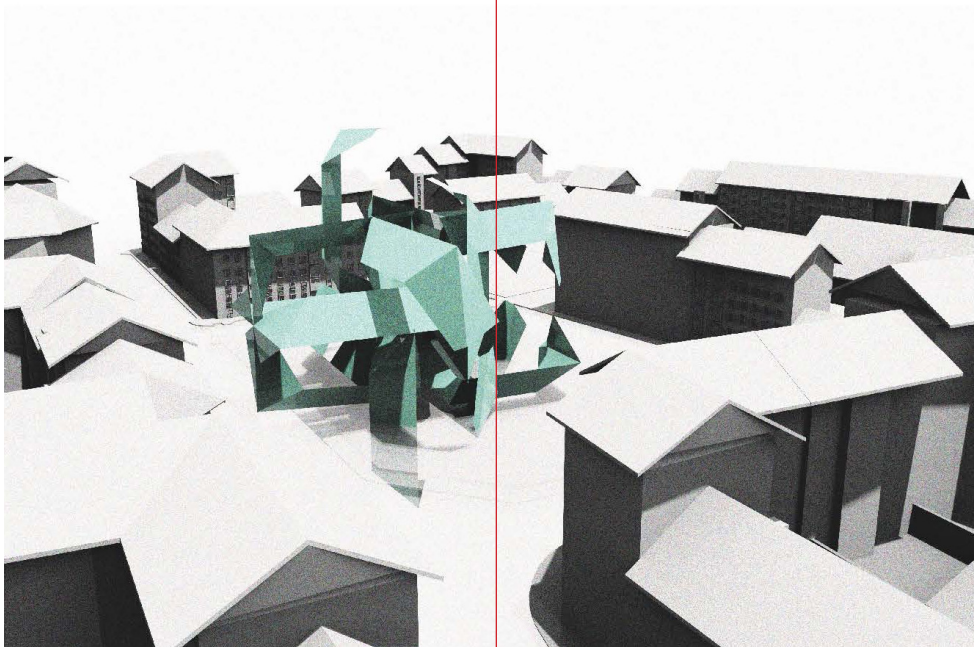


FIG.65 A: The form that represents the Moroccans on site.

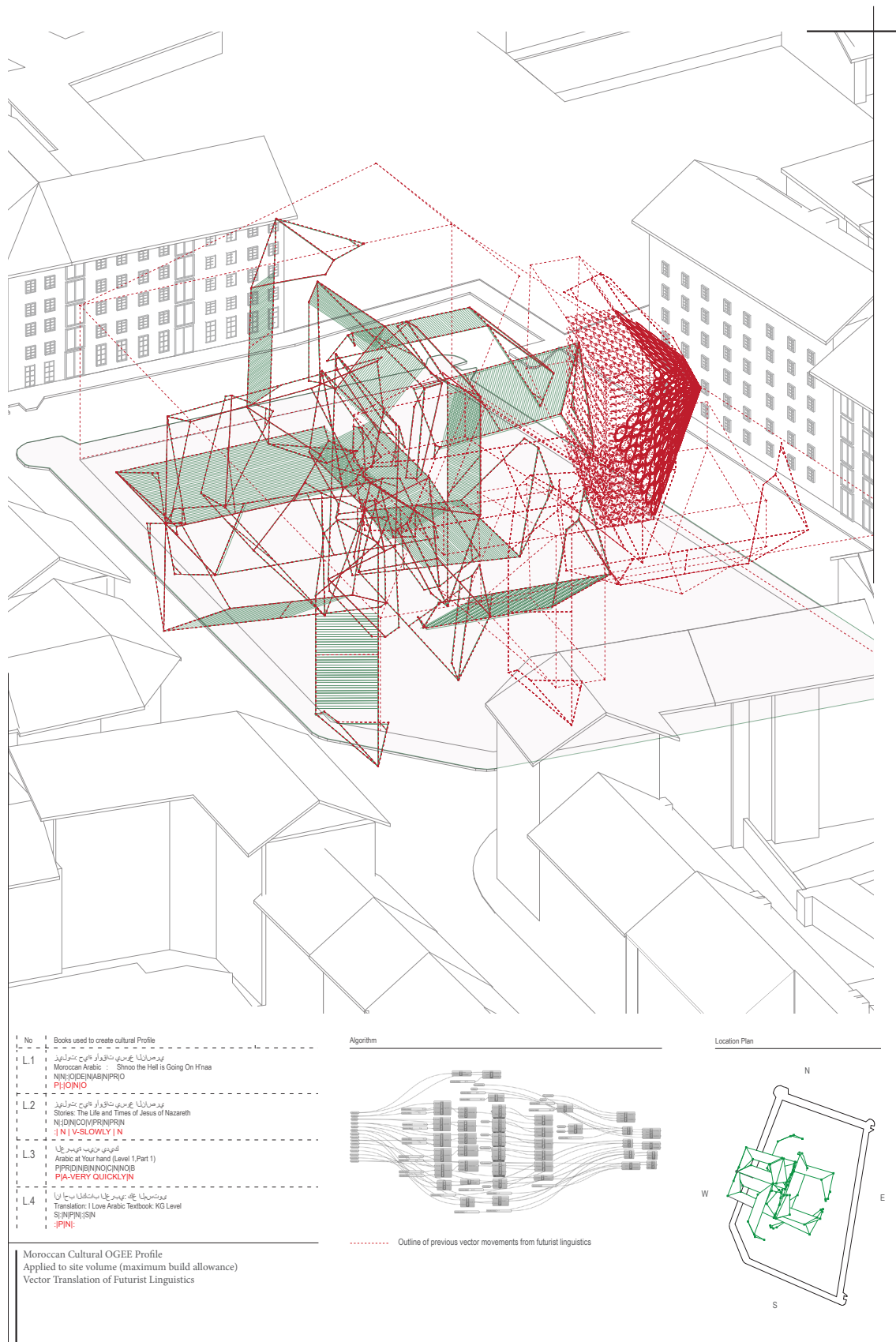


FIG.66 B: The language transformations (from the book titles using the system developed) to create the form.

Peruvian(fig.67)

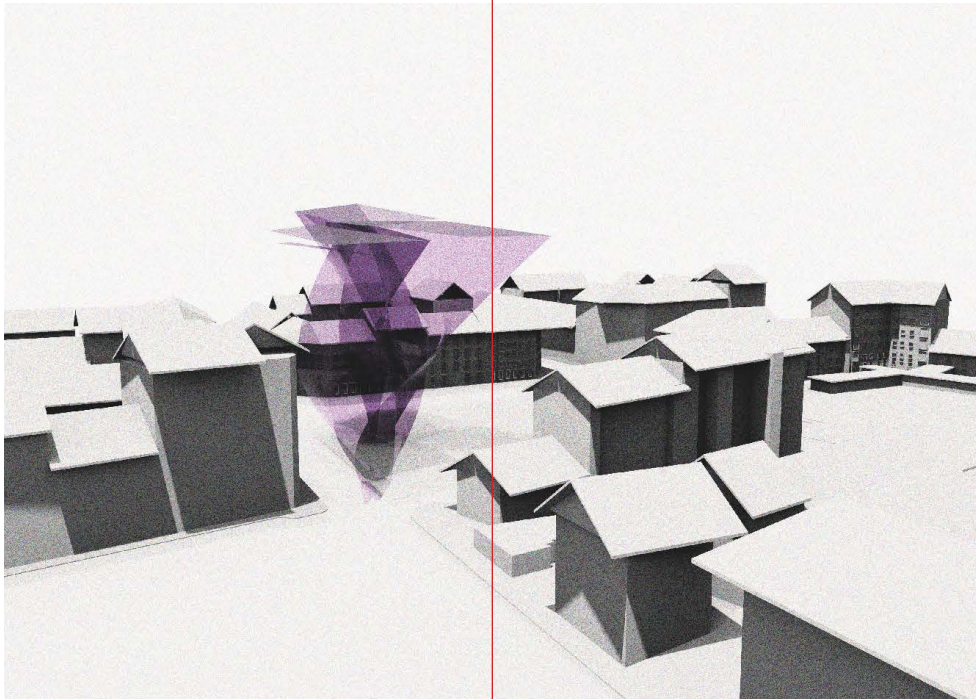


FIG.66 A: The form that represents the Peruvians on site.

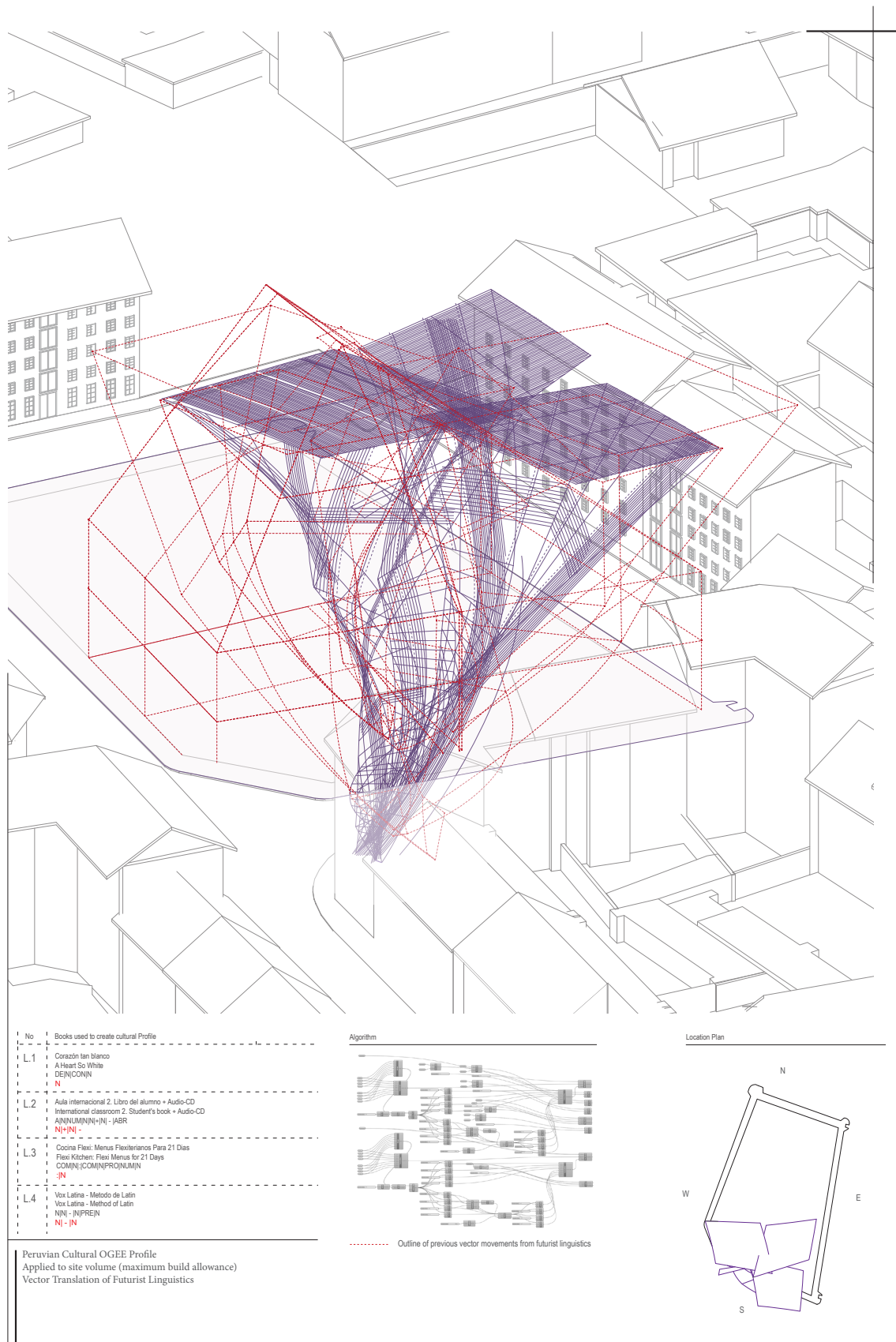


FIG.67 B: The language transformations (from the book titles using the system developed) to create the form.

Romanian(fig.68)

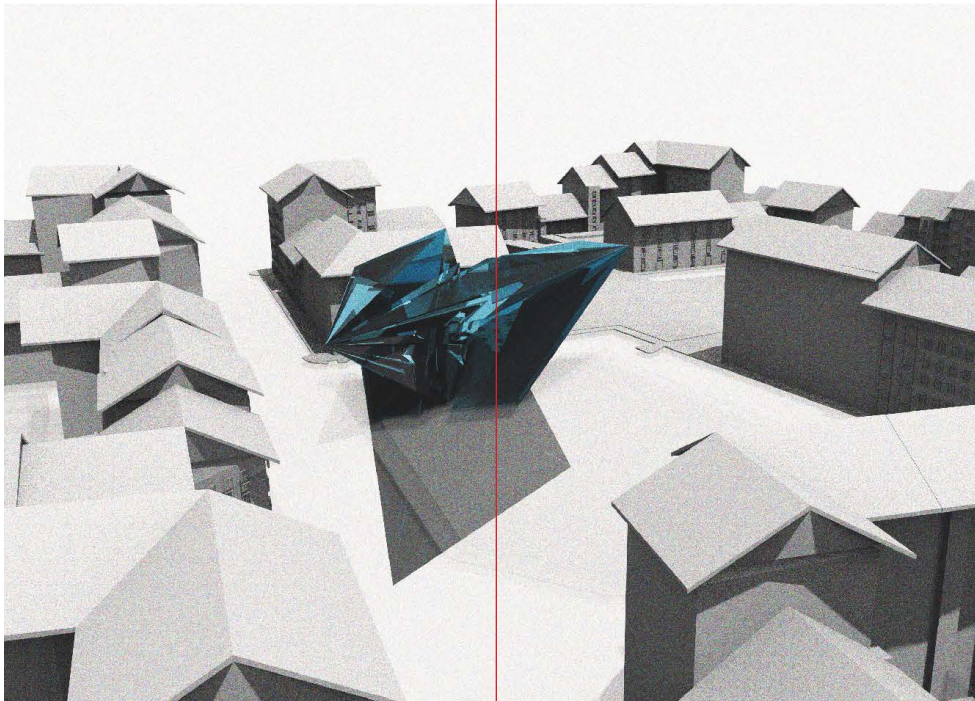


FIG.67 A: The form that represents the Romanians on site.

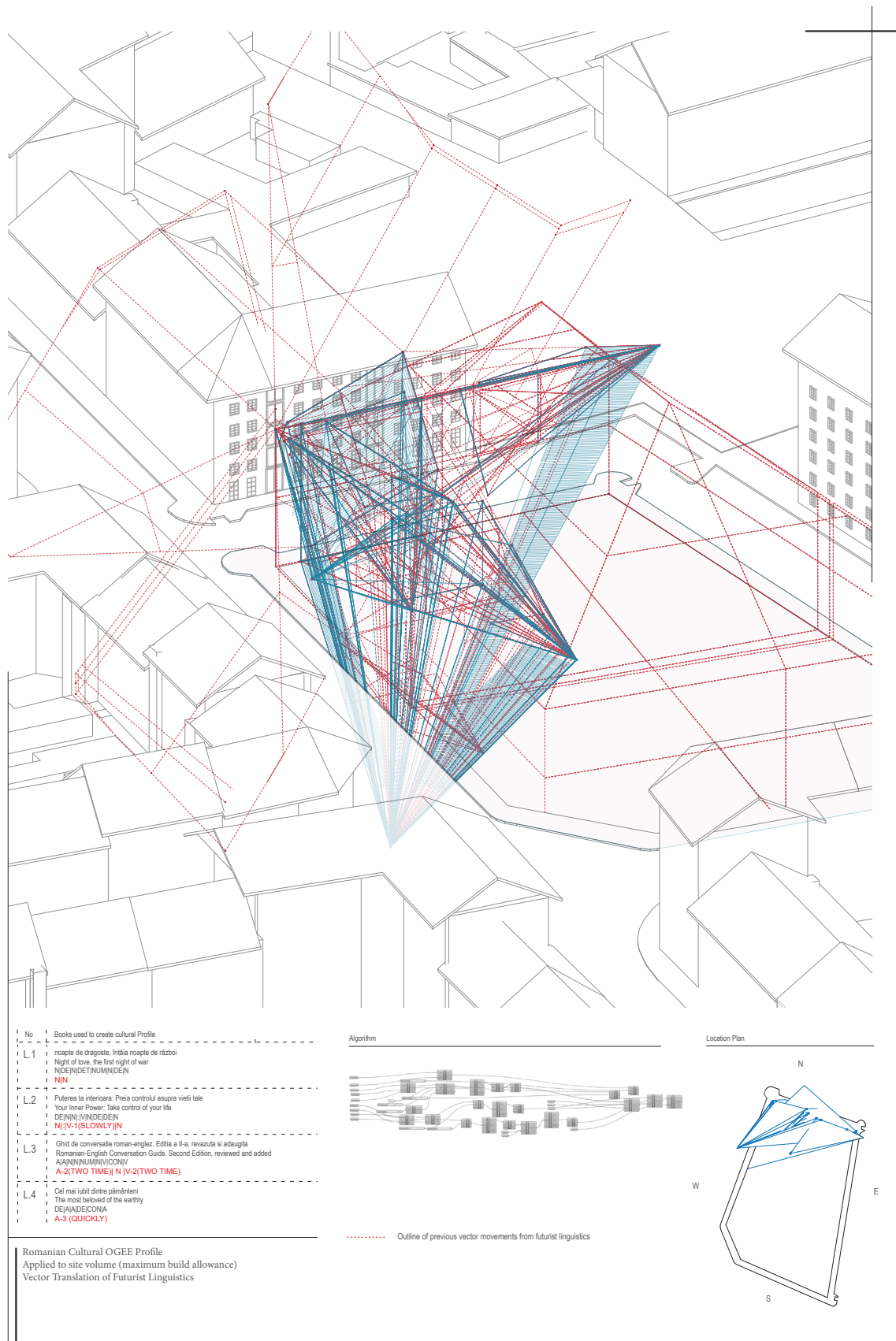


FIG.68 B: The language transformations (from the book titles using the system developed) to create the form.

FIG.69: Perspective view illustrating the different forms on site.

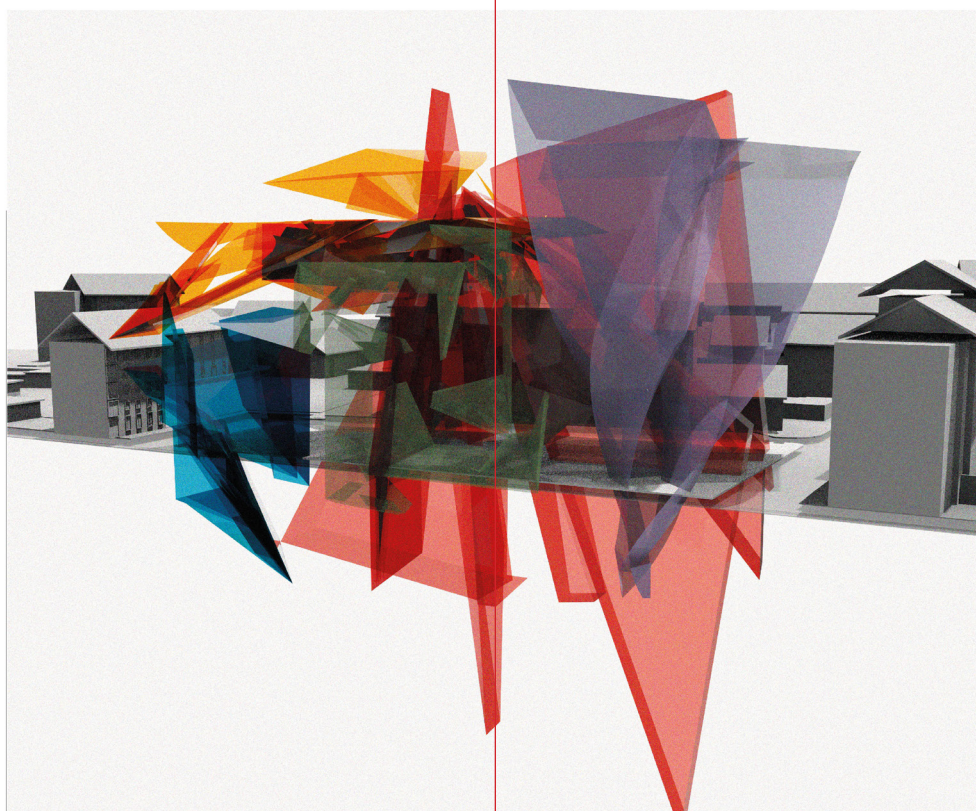
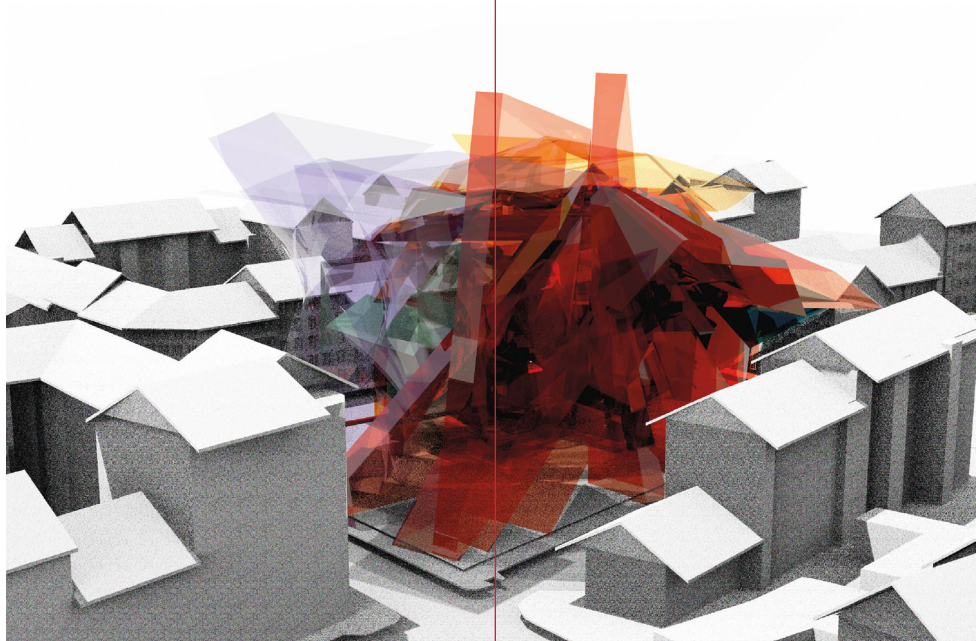


FIG.70: Sectional study through the forms produced illustrating the difference in representation.

Critically, the aesthetic outcome has allowed the architectural components to illustrate a representation for each community that is distinctively different, giving them political visibility through the architectural form (fig.69-70). Spatially each outcome occupies a different location on site, which illustrates an equal power dynamic in terms of their allocation of space. However, the forms achieved are of varying size so that the Albanians are the smallest, whereas the Italians occupy a large quantity of the site. Raising a question on how we can validate this end result as an equal architectural representation, as their volume and size are unequal. Thus, the process of designing the architectural form has demonstrated a grapple with achieving a balance between my authorship over the desired outcome for a fair representation of the communities and the restricted authorship that the Oulipo wanted to foster through their methodology. All of which highlight the architects political power dynamic as they obtain the expert knowledge required to make these decisions and the amateurs, the community, are again marginalized because of their inability to communicate using a shared language. This is imposed more so in the later stages of design, as this outcome will need to be developed into an architectural building, thus going through detailed design phases where by the architect will need to make design decisions on elements of the building such as what is solid or transparent for the windows and walls, the materiality of these components, the function that the spaces inside house, the circulation, as well as the different building strategies such as the drainage and electrical. Illustrating the communication and architectural language required to make these design decisions, in order to develop an architectural building for the urban environment of Barriera di Milano.

By applying the same and equal system to each of the 6 communities I have blurred the boundaries between the power dynamics due to the fact that we can no longer identify who is responsible for the different parts of the outcome. Therefore, have I been able to dissolve the power dynamic, despite the fact that throughout the process I have made specific design decisions that appropriated authorship to the multilingual communities? Through my method I have tried to withdraw my design ambitions for what the form should be to give authorship to the communities. However, by acting as a representative of these communities, with no prior survey or understanding for what the communities feel this representation should feel or look like, I have to some extent been the author of the outcome. Thus, bringing to light the limitations of the design process. Firstly, I have developed this design proposal through studio work in London with only one site visit at the start of the project. Therefore, my interaction with the communities has been minimal. Indicating that the real world implications of this project would be much more radical through the integration and participation of the communities opinions within the design process. Secondly, the studies carried out on language have not been tested in the real world, thus, the real impact of the design decisions is unknown. Thirdly, I was not able to engage with all the members of the community on site and the language study carried out could have been misinterpreted due to the prevailing language barrier. Highlighting a lack of real world and personal understanding of these communities. However, this exercise has offered an investigation into how language can be utilized as a potentially unifying tool in a socially contested environment. As a result, opening discourse on how it can be instrumentalised creatively within the process of design to develop architectural outcomes.

CONCLUSION

This thesis has been utilized through a coordinated research and design investigation that explores how language can be appropriated in a multilingual and contested site context in order to represent the cultural value of the residing communities through architecture.

Initially it facilitated an understanding into the vast applications of language, identifying its real world impact. Thereafter, a considered review of the socio-cultural and political environment of Turin has distinguished the intersection of the multiple languages and the necessity of its employment to foster social cohesion by way of representing and giving agency to the communities. As a result, part 1 has explored 3 avant-garde applications of language: as a political tool, a system based mechanism that can enable and disable authorship, as well as an aesthetic manifestation of representation. Through the understanding of these theories I have explored their role within the process of design. Thus, by instrumentalising the knowledge I have been able to develop a design proposal and system, which utilizes the multiple languages on site to create an architectural outcome that illustrates the community's differences.

Through the exercise of this thesis I was able to explore the relationship between language, architecture and systems in the context of Turin. In turn, exploring the role of theory and history within design and vice versa. Developing a method of work that fosters the partnership of these tools as a way of creating considered outcomes. By considered I am denoting to the attention and sensitivities illustrated towards the context and its partnership with design ambitions. In turn, I have learnt how these tools can be utilized within the process of transferring language into architecture to change how we design.

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LIST OF ILLUSTRATIONS

FIG.1:

Özogul, S. (2016). Ferruccio Pastore and Irene Ponzo (eds): Inter-group relations and migrant integration in European cities. *Journal of Housing and the Built Environment*, 32 (3).

FIG.2:

Silvio Magliano. (2018). Su Barriera di Milano la Giunta brancola nel buio. [online] available at: <http://www.silviomagliano.it/barriera-milano-la-giunta-brancola-nel-buio/> [Accessed 22 Apr. 2018].

FIG.3:

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FIG.5:

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FIG.6:

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FIG.7:

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FIG.8:

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FIG.9:

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FIG.10:

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FIG.11:

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FIG.13 & FIG.16:

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Fig 14 :

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Fig.15:

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Fig 18

Pinto, M & Ponzo, I. (2011). *Understanding Conflict and Integration Outcomes of Inter-group Relations and Integration Policies in Selected Neighbourhoods of Five European Cities*. Concordia Discors: Turin Background Report. P.10.

fig 19:

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Fig 20- Fig 69:

Authors own.