Patronage as Collaboration. Dante Bini’s Villas in Sardinia

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Abstract: In 1970 on the rugged coast of Costa Paradiso on the Italian island of Sardinia, the encounter between one of the most renowned Italian film directors, Michelangelo Antonioni, and an architect with an engineering vision, Dante Bini, produced a holiday villa that was defined by Rem Koolhaas as one of the best buildings of the last hundred years. The reason for its exceptionality can be understood at first glance by merely considering its shape, a semi-sphere, resulting from inflating concrete and free of any internal structural partitions, which was why it was renamed La Cupola (The Dome). This article’s main argument is that the collaboration between Antonioni and Bini was instrumental in the creation of La Cupola and led to a surprising hybridization of architectural language within and beyond this building. La Cupola is the starting point to tell the story of the other villas designed and built by the same architect, in the same years, in the same region and exactly by means of Antonioni’s patronage. These can be understood in fact as the products of specific economic and political conditions that had an impact on architectural production in post-war Italy.

Keywords: Holiday Villa; Post-war Italian Architecture; Sardinia; Costa Paradiso; Co-authorship; Binishells; Client-Architect; Dante Bini; Michelangelo Antonioni; Monica Vitti.
Introduction, Material, and Methods

In the collective imagination, the villa could be understood, in Inaki Abalos’s words, as a manifesto for »the good life«, often representing to architects the laboratory for stylistic and technological experimentation or an exception to their portfolio (Abalos 2017). This is even more true when looking at the so-called otium villa or villa suburbana, which we would define today as a holiday villa, intended for pure pleasure as a second residence often located away from the city.¹ Since their inception, villas were the result of injections of capital by private clients who allowed the vision, status, or power of their patronage to be embodied in the architecture of the building, often the excuse to display ingenious technological solutions. The literature on the relevance of patronage in private residential buildings and specifically in villas, in monographs or catalogs, is extensive (cf. Friedman 1998; Volker 2019).

This article inserts itself into this field with the aim of reframing the notion of patronage as a collaboration by taking the case of La Cupola, a dome of 19.5 meters in diameter and 6 meters in height, obtained by inflating concrete, and designed by architect Dante Bini for Michelangelo Antonioni and his partner Monica Vitti as a holiday home in Sardinia. The technology patented by Bini and applied for the first time in a private villa for a renowned client is considered the starting point in a process that saw Michelangelo Antonioni heavily involved not just as a patron but also as a designer and developer. This article adds a new perspective to the existing literature on La Cupola by stressing the links between this building and the other villas designed by Bini. How could we go beyond the conception of the architect as an independent actor and recognize the collaborative role of the client as both a designer and developer in fostering and supporting architectural production? In what way did the building of La Cupola function as a blueprint in relation to the other buildings Bini designed in Sardinia? Does the relative anonymity of the other villas hide the many issues at stake when talking about coastal urbanization in post-war Italy?

¹ The literature on the typology of the villa is extensive. The most notable scholar who has written on the topic is James Ackerman, who in his book The Villa: Forms and Ideology of Country Houses, examines the genealogy of this type from its invention in Roman times until the 21st century.
Answering the above questions requires looking beyond La Cupola to consider it part of a larger project. By providing a review of the state of research on the major literature published on this building, the revealed gaps in knowledge justify why a new approach to this topic is urgent. By reconstructing the genesis of La Cupola through information sourced from the literature and cross-checked during a recent interview with the architect Bini in early 2023, a deeper analysis on the collaborative nature of patronage is unpacked (Bonomo 2023). Through a typological analysis of the three other villas built by Bini in the same location, Villa Balboni, Villa Vacchi, and Villa Spagnoli, similarities with and differences to La Cupola will be revealed with the aim of demonstrating how this building functioned as a model. As some of this material has never been published, a close architectural reading is necessary to argue the central role Antonioni played in fostering the career of Dante Bini and in developing a name for himself in the world of private commission. This article argues that the fruitful encounter was not only an opportunity for Dante Bini to experiment with alternative construction methods beyond inflatable concrete but was also representative of the phenomenon of land parceling which was affecting large stretches of coastal areas in Italy.

La Cupola’s Narrative

In his article »Dante’s Inflatables«, McLean gives an account of Bini’s biography through the development of the Binishells technology (McLean 2013). In the same year, he also published the volume Building with Air based on Bini’s own account (Bini/Dioguardi 2012). The book is structured in six chapters and the epilogue is dedicated to the history of the creation of La Cupola, seen as an encounter between two major actors while ignoring the neighboring villas designed by the same architect.

It is with the exhibition curated by McLean and Maak at the XVI Venice Architecture Biennale in 2014 that La Cupola starts obtaining more mediatic attention. In the same year, Goswin Schwendingeron, in his article »Paradise

2 La Cupola is celebrated as »the place where his construction system is deployed to the most artful effect«, suggesting how the involvement of a private client could impact an architect’s career as well as change the reception of technology. (McLean 2013: 21).
Regained«, gives La Cupola the central stage (Schwendingeron 2014). In Dante Bini’s Mechatronics, Ricci gives a precise and detailed account of the project from its inception (Ricci 2016). In the same year, the film director Volker Sattel released the short documentary La Cupola, portraying the decaying state of the building and prompting a reflection on heritage, or lack of it, in the context of post-war Italian architecture. Given the mounting attention, the Environmental Fund for Italy (FAI) accepted a public petition in 2015, which was advertised by the non-specialist press, to protect this building from demolition.

Alongside the publications already listed, the Binishells technology has been the subject of a large number of publications in the field of engineering where it was analyzed in its construction and structural attributes. In the publication Architecture Beyond the Cupola: Inventions and Designs by Dante Bini, we find an original comparison between the prefabricated housing models and the ad hoc projects for private clients, implicitly revealing the agency of patronage (Pugnale/Bologna 2023).

The Genesis of La Cupola

Dante Bini met the actor Monica Vitti in the ski resort of Cortina d’Ampezzo, in 1968. Needless to say, the possibility of holidaying in such an exclusive place was not available to everyone, but it is important to remember that during the 1960s class composition in Italy experienced a dramatic change, allowing more people to enjoy a higher level of prosperity. As Hartmut Kaelbe has argued «at no time in human history have so many people become affluent within one single generation» (Kaelbe 1992: 12).

At 37, after returning from a successful period at Columbia University in New York, Bini was definitely an »up-and-coming« professional, having founded Binishells a few years before. Specializing in a patented technology bearing the same name, the company produced concrete domes lifted and shaped by air pressure and completely load-bearing. The reasons for

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3 The medium of photography is used to enhance the dramatic character of the building while putting the accent on the meta element of this architecture, designed for a film director and resembling a movie set.

4 The book Building with Air contains an account of the most relevant publications within this field in the bibliography.

5 Kaelbe refers to the German context, Italy was no exception in experiencing its very first industrial revolution in the 30 years after the war (Ginzburg 1990; Tafuri 1989).
Binishells’ success were twofold: the speed of construction, which eliminated the need for lengthy formwork, and the relatively »inexpensive manufacturing method«, which did not require a large site crew. However, between 1968 and 1972, Bini was ousted from any relevant professional role within the company he founded.

It is possible to speculate on Bini’s need to network and acquire new clients, and to deduce the relevance of the brief conversation with Monica Vitti. It was only a matter of time before the architect met with the film director Michelangelo Antonioni, who at the time was secretly dating the actor, his muse and protagonist in the acclaimed L’Avventura (1960), La Notte (1961), L’Eclisse (1962), and Deserto Rosso (1964). These movies, like most of Antonioni’s productions, also share a recognizable spatial sensibility used to describe the emotional turmoil of a generation through the use of »extremely long takes, striking modern architecture, painterly use of color, tiny human figures adrift in empty landscapes« (Dalton 2019). In L’Avventura, the vulnerable middle-class subject – a product of the Italian »Economic Miracle« – is exposed and contrasted with abstract and pure architectural forms, the only reassurance in a world where restlessness, anxiety, and disorientation characterize the human experience. It is easy to see how the simplicity and abstract qualities of Bini’s prefabricated domes could have seduced Antonioni’s imagination to build a refuge of his own. One could even speculate that there could not be a more ideal shape to host the house of a director whose celebration of the dome appears as a constant in his movies, as a symbol of divine guidance (fig. 1).

Nature also holds an important role in Antonioni’s movies, embodying both isolation and refuge in contrast with, as he put it »the inhuman industrial world which oppresses the individuals and leads them to neurosis« (Chatman/Seymour 2004: 91–93). The image of the volcano on the island of Lipari in L’Avventura for example, echoes powerful archetypical shapes, symbols of a lost connection with the environment; one which could be

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6 The company Binishells is still active today and is managed by Dante Bini’s son, Nicolo’ Bini. For more information: https://binishells.com/.

7 In Binishells’ company brochures between 1968 and 1972 the name of Dante Bini is missing from most of the major projects built. The reasons for ousting Binishells’ founder are not clear (Bonomo 2023). A possible explanation could be related to the increase in the company’s scale and the need to control the production of patented technology from a managerial perspective rather than an architectural/artistic one. This has also been documented in Building with Air (McLean 2012:74).
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reinstated through escape or imagination, as for the young girl in the story told by Vitti in *Deserto Rosso*. While shooting this movie on the island of Budelli, Antonioni, struck by the beauty of the place, picked Sardinia as his refuge from public life. Initially faced with the impossibility of acquiring a plot on Budelli, owned by the Milanese developer Pierino Tizzoni, the director accepted the plot gifted to him in the Gallura region, 70 kilometers north of Sassari.\(^8\) The inhospitable land, hit by strong winds, almost unsuitable for agriculture or pasture, and characterized by rocky cliffs, was almost uninhabited when Antonioni and Vitti set foot on it. There, Tizzoni saw an opportunity of developing this area known as *S’ara Niedda* (Desperate Land) into Costa Paradiso (Paradise Coast), with the aim of creating an alternative tourist resort for the cultural elite of Rome and Milan (Ricci 2016: 133) (fig. 2, fig. 3).

The unusual and binding conditions of the appointment were »imposed«, to use Bini’s words in the first meeting between client and architect (Bonomo 2023). Firstly, the architect had to respect the confidentiality of the project as well as the professional relationship between the parties, coupled with a commitment not to disseminate any information about it. According to Bini, Antonioni was planning on using *La Cupola* as a set for a movie, and for this reason, the architect had to promise that in case of a successful appointment, that no camera would be allowed on site. Secondly, Bini was asked to set out a preliminary sketch of the project, which had to be developed in conversation with the client. Lastly, the payment for the architect’s services was limited the reimbursement of expenses, with the promise of other jobs from Antonioni’s friends, which would then »pay« for *La Cupola«.\(^9\)

The contract did not just contain the promise of one dome but of many others as well. The destiny of *La Cupola* and its financing, therefore, depended a lot on what was still coming, making this building the testing ground for successive projects. With the signing of the contract, the architect was asked

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\(^8\) The island of Budelli was recognized as protected territory only in 1992. This includes the radius of 300 meters around the island in which transit by boat and swimming is prohibited. According to Law 349/91, following an increase of tourism on the island which was endangering plants and animals and affecting the composition of the recognizable pink sandy beach. The island is currently part of the *La Maddalena Archipelago National Protected Area*.

\(^9\) The director was inspired by a scene in the movie *La Cagna* (1972) by Marco Ferreri, which is partly filmed in a dome-like shape, as documented in *Dante Bini Mechatronics* by Antonio Pennacchio and Giulia Ricci (2016: 138).
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to sustain the director’s company for months on end on-site, with the aim of »absorbing the environment« in all its nuances, which at times proved »challenging« (Bonomo 2023). The design had to be inspired by the local Sardinian tradition of the sighting towers, responding to the prevailing winds, the sound of the waves on granite rocks, and the smell of the stones and local Mediterranean shrubs. In line with a cinematic approach, two-dimensional drawings were parked by Antonioni’s requests in lieu of three-dimensional physical models, which were used as design tools to make layout changes and major design decisions (fig. 4, fig. 5).

The result was a villa which in many ways, and for the reason described above, was designed and conceived of as the set of a movie. Once crossed the pedestrian bridge, which gives access to the building from the street, one is welcomed by two opposite spatial experiences. Frontally, a staircase composed of stacked large slabs of local pink granite rock – handpicked by Antonioni at a nearby quarry – allows the descend into a double-height living area with large windows overlooking the sea. On the right, a narrow corridor running parallel to an indoor garden leads to the master bedroom with a dressing room and en suite bathroom. On the opposite side of the living area, a series of spaces surround the indoor garden which receives light from a cloud-shaped oculus. Going clockwise, there are: two rooms at either side of the secondary entrance (probably for guests) equipped both with en suites and dressing rooms, with a kitchen, and service spaces connected to a storage room at the basement level. The mute and atomized exterior was the product of negotiations between the client and architect, who agreed on the removal of a chimney flue, initially proposed by Bini, and on the rendering of the external finish to blend the shape with the surrounding landscape (Bonomo 2023) (fig. 6–9).

La Cupola was, in many ways, a testing ground for both Bini and Antonioni. For the architect, it was the promise of payment for future commissions, an excuse to alter a prefabricated prototype, which until then was used purely functionally, but it was also a challenging project for a demanding client. For the client, it was an opportunity to become the director of his own idea of domesticity, liberated from a strict hierarchy through the use of a circular shape. The collaboration between client and architect allowed this building to emerge, and soon, to be surrounded by others.

Between 1970–1974 Dante Bini built three more villas in Costa Paradiso: Villa Vacchi, Villa Balboni, and Villa Spagnoli, all for friends or acquaintances related to Antonioni’s public life in Rome and Milan. One could argue that the concept of patronage as collaboration effectively applies to all the Sardinian projects, a product of the network of people surrounding the film director. In other words, La Cupola was one of the first private villas built in the area, becoming a blueprint for successive projects.

Bini was commissioned to design Villa Vacchi by the painter Sergio Vacchi after acquiring a plot adjacent to La Cupola, with the aim of building a painting studio. The layout of Villa Vacchi however, contradicts this statement. The project was submitted for planning in 1970, together with Villa Balboni as one individual residential unit, despite clearly being two individual buildings separated by less than ten meters and owned by a couple (fig. 10, fig. 11). Villa Vacchi also adopted Binishells’ dome technology and shared a few similarities with La Cupola. The access is provided from the top via a series of chambers, which function as an open courtyard that leads to a narrow spiral staircase contained within two stone walls. The living room is connected to the adjacent round atelier and bedrooms by small openings enhancing the feeling of being lost in a domestic labyrinth. Natural light, like at La Cupola, floods the space by means of an oculus located above the living area and side sunken courtyards are carved out of the exterior shell in correspondence with the two double bedrooms of identical size. In doing so, the architect possibly envisaged the use of these by friends, or even by a couple who wanted to enjoy some privacy. In this sense, Villa Vacchi was effectively designed as a holiday house and it was used for that purpose. As for the materiality, the inflatable concrete shell was partly clad in local stone, grounding the building to the landscape of Costa Paradiso and the tradition of the Sardinian sighting »Nuragh«, in many ways an ode to the tradition, a trope that Bini will deploy in Villa Balboni as well (fig. 12).

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10 As stated by Dante Bini, during those years the director was a constant presence on site for both the construction of La Cupola and the other three villas.

11 The Nuragh or Nuraghe is an ancient type of megalithic structure, which developed in Sardinia during the Nuragic Age between 1900 and 730 BC. The buildings’ function is disputed, some archeologists believe that they were military strongholds but they could have also been ordinary dwellings or religious temples, or a combination of both.
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9. 
*Dante Bini: Villa Antonioni – La Cupola, 2023.*
*Photographer: Michela Bonomo.*
Despite being part of the same project, Villa Balboni represents the first exception in Bini’s portfolio, which had, until now, relied on the Binishells template. In the plan, it is possible to appreciate how the constraint posed by space was overcome by embracing the logic of a clear axis demarked by horizontal retaining walls. The entrance on the long side of the rectangular shape cuts this rhythm perpendicularly, creating an open view toward the sea in correspondence with the living area. On the right-hand side of the entrance office, kitchen, and service spaces are arranged in one line, one bedroom and a studio are arranged on the left-hand side. These two spaces both have access to an inner courtyard, maximizing the use of flat surfaces while bringing light and privacy to the spaces and providing a ceiling height. Tucked between the existing rocks, the building adapts to the irregular terrain by means of mezzanines and platforms; one is located above the studio, giving access to a »sleeping area« and the second is above the office, which is also accessible via an external ladder. The house could potentially sleep four people but the lack of hierarchy and the proximity of the secondary spaces to the office suggests a new type of domesticity (fig. 13). One where life and work are indistinguishable and where the traditional idea of the nuclear family is deconstructed, by means of bedrooms that allow little privacy and are more like resting spaces for guests or close friends. On the facade, the pure geometry of the pitched roof is contrasted with local stone cladding, rooting the house in the local tradition of the Sardinian rural long-house of the »Stazzo« (fig. 14).

Villa Spagnoli is Bini’s last project on Costa Paradiso to bear a little of both Binishells’ prefabricated design and the relationship with local traditions. Bini was commissioned to work on the villa by the nephew of the famous Italian

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12 One reason could be the personal history between the commissioner and Antonioni. The actor Letizia Balboni was married to Antonioni for twelve years and with the design of Villa Spagnoli possibly wanted to distance herself, not only emotionally but also architecturally, from La Cupola since she then re-married to Sergio Vacchi.

13 There is no label indicating the children’s bedroom anywhere on the plan.

14 The archetypical pitched roof brings to mind Venturi House, the most notable example using this trope, a project also commissioned by a woman, and the symbol of a new attitude toward modern architecture. The »Stazzo« is a Sardinian domestic typology which started appearing in the 17th century. It is similar to a longhouse in that it consists of three bedrooms arranged in a rectangular shape and a pitched roof. It is common in the region of Gallura and used by shepherds and landowners. It is often surrounded by arable land and is constructed using local stone. Openings are normally all the same size.

fashion designer Luisa Spagnoli, another friend of Antonioni’s, and little is known about this building.\textsuperscript{15} The house is perfectly mimetic; the green roof, resulting from an undulated concrete slab is supported by the load-bearing walls of local stone. Similarly to Villa Vacchi, the access happens here via a spiral staircase – the only feature visible from the street – which descends to the house within a Nuragh-like chamber. The introverted access is in contrast to the entrance of the house at the bottom of the staircase, where an uninterrupted view of the sea from an open terrace reveals the building. The living, dining, and kitchen face the panoramic terrace and bathrooms and service spaces were most likely arranged against the retaining wall. The bedrooms in the extreme wings were contained by a local stone wall punctuated by large windows (fig. 15).\textsuperscript{16} During the construction of Villa Spagnoli, Antonioni was directing the movie \textit{Zabriskie Point}. Nestled on the side of a hill, with an open glazed facade overlooking the rocky landscape and the sea this villa shares some features with the one in the final scene of the movie (fig. 15).\textsuperscript{17}

### Beyond the Dome

While studying the four villas designed by Bini in Costa Paradiso, one is asked not to simply look at them as the symbols of a successful collaboration with patronage but rather as exemplary of two specific historical conditions that impacted architectural production in post-war Italy.

Until 1985 the practice of »lottizzazione« (allotment), which in Italian planning law refers to the fragmentation of land to obtain individual portions or lots, which become distinct units both legally (as far as ownership is concerned) and administratively (requiring cadastral subdivision), was

\textsuperscript{15} The analysis of Villa Spagnoli is based on the documentation submitted to the Comune of Trinità d’Agultu, historic photographs shown by Bini at a conference at the University of La Sapienza and coming from his archive. A recent site visit made possible to have a better understanding of the project’s current status. However, the lack of architectural plans does not allow a meticulous comparison, so a photographic and satellite analysis study is adopted in lieu of a careful layout analysis.

\textsuperscript{16} The impossibility of obtaining plans from the Municipality of Trinità d’Agultu meant that the layout had to be deduced from photographs.

\textsuperscript{17} The villa featured in \textit{Zabriskie Point} is a copy of the building designed by Hiram Hudson Benedict near Cave Creek Arizona, which was rebuilt and blown up by the director for one of the final scenes of the movie. Given the documented constant presence of Antonioni on all his clients’ villas sites during the shooting of this movie, one could speculate an implicit message is encapsulated in the design of Villa Spagnoli.
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In becoming a tool to extract value from land, »lottizzazione« was used with speculative gains extensively, allowing small entrepreneurs to become large developers thanks to loopholes in the legal system.  

This was the tool used by major real-estate developers like Pierino Tizzoni in Costa Paradiso. The Italian coasts, in fact, due to a renewed discovery of the sea and the advent of mass tourism paid the highest price, falling prey to speculators. This article argues that private villas were often the first development to take place, paving the way for heavy infrastructure and other construction to arrive. This was not a new phenomenon, as villas have been the materialization of land extraction throughout history, however, the scale on which this phenomenon occurred during in the post-war years was unprecedented. Antonioni, consciously or not, enabled and supported the practice of »lottizzazione« in Costa Paradiso through his close involvement in the construction of La Cupola, as well as by his attitude to ensuring the construction of his friends’ villas, which adapted more than La Cupola to local construction traditions.

As argued by Nele Dechmann in the book Costa Smeralda, and in the large literature produced on tourist architecture, in the case of Sardinia, local traditions were instrumentalized and completely transfigured for this purpose in the hand of large developers who were responsible for the creation of a new vernacular as part of the project of Sardinia’s colonization (cf. Carlotti et al. 2015; Cappai 2015; Dechmann 2019). This attitude, I argue, is visible in all of Bini’s projects in Costa Paradiso. In a certain way, these villas are the symbol of the hybridization of highly technological prefabricated solutions like Binishells, altered to match a new attitude in Italian post-war architecture. Despite mostly looking at large housing examples, scholars have analyzed the new aesthetic in the architectural production of the Italian Postwar and the critical attitude toward the implementation of prefabricated technology (cf. Poretti 2008; Williams 2002; Casciato 2002; Tafuri 1989). The distancing from the technological attitude of the Modern Movement, which was seen as too close to the Fascist regime, led to the endorsement of an anti-technological attitude – close to the vernacular building practices. It can be argued that Bini’s villas represent a tension between the need to showcase

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18 Between 1962 and 1964 the Minister of Public Works, Francesco Sullo, attempted a reform to contain the phenomenon of »lottizzazione« and proposed the institution of a national planning framework for Italy. His proposal, then renamed Legge Sullo, was opposed under the mounting pressure of large landowers and developers (cf. Blecic 2019).
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technology, a characteristic that is common in private buildings designed by architects, and what could be defined a «new vernacular» attitude.

For the reasons explained above, La Cupola is the perfect case study as it encapsulated a portion of Italian history. The common practice of «lottizzazione» with the aim of extracting value from the landscape was enabled by Antonioni in his wish to become more of a developer than a client. The collaboration with Bini determined the alteration of a prefabricated model, leading to surprising and unconventional results for domestic architecture, a creative process that probably allowed Bini to manage the inferiority complex he had suffered during his university years and finally wear the hat of the architect rather than the one of the engineer, leading to successful commissions abroad.19 Antonioni and Vitti enjoyed this house together, and apart, until the mid-1980s when the building was abandoned following the couple’s break-up, and with it ceased the clause of non-disclosure and the anonymity of the project. The increased maintenance costs and the disputes between Antonioni’s and Vitti’s families led to a slow and inevitable decay, an abandonment that in many ways reveals the impossibility of escaping the «industrialized» world or perhaps the director’s coming to terms with his own contradictory decision of building a villa – the ultimate and tangible embodiment of capitalism – and the consequences that had on this corner of paradise (fig. 16).

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19 Dante Bini admitted in various accounts, the most recent one for the Versus seminar in February 2022 at University La Sapienza in Rome (https://www.youtube.com/watch?v=JgE7jKbjFPC&ab_channel=ScuoladiDottoratoinScienzedellArchitettura) that his inferiority complex about the Master of Architecture made him embrace a more constructive/engineering approach that eventually led him to patent Binishells. Following the Sardinian experience, Bini moved to Australia where he stayed for six years and was involved in a large number of public projects.
15.
Michelangelo Antoninoni: Frames from the final scene of Zabrienskie Point, 1974.
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