

Garden with Foreign Species for Depopulated Island.

Case Inujima; inventive landscaping design as a tool to transform population dynamic.

発見的ランドスケープで人口動態の転換を図る試み、犬島編

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● Key Words: Setouchi Art festival, Pritzker laureate architect, Actor Urbanism, Curator of a town, Foreign Species, Depopulated Island, Urbanization of Actors Model, Art for population Influx

要旨

瀬戸内海に浮かぶ犬島は、西暦2010年に人口47人、平均年齢74.5歳であり高齢化と過疎化に直面している。1980年代後半から近隣の直島においてアートサイトプロジェクトが実施され、現在はキュレーター北川フラムが主に香川県の島々を舞台に加えて、瀬戸内国際芸術祭を3年周期で開催している。犬島はこれに加わり、今、変化の途上にある。この過程は同じ問題を抱える地方のために有意義だと判断しこの論文をまとめた。

プリツカー賞を受賞した建築家妹島和世と著名なキュレーター長谷川祐子は、2010年に瀬戸内芸術祭作品展会場として犬島に小さなシェルターをいくつか建設し、福武財団とともにウイーン工科大学、ミラノ工科大学、京都精華大学などの学生たちと一連の国際建築デザインワークショップを運営してきた。本論文の著者である上原雄史は、妹島和世の呼びかけに応じて2014年に家族とともに犬島に一月滞在し小さなプロジェクトを実現した。2016年には再び富山大学の上原研究室として妹島に招かれ、犬島に活動拠点を移したランドスケープデザインユニット明るい部屋のサポートを得てTガーデン（仮称）を設計実現することができた。

この様子は動画などとして記録され、妹島和世/SANAAとアートディレクター長谷川祐子が、彼女らの活動報告の一部として2016年の第15回ヴェネチア国際建築ビエンナーレに出品した。

Abstract

In 2010, Inujima was an island with 47 inhabitants with average age of 74 years old. Inujima is an island in Seto Inner Sea, where most islands confront aging and depopulation. Since the mid 1980's a near by island Naoshima implemented her art-sites projects and saw success. Currently, the region hosts international art triennale.

On 2010, Kazuyo Sejima, a Pritzker laureate architect, and Yuko Hasegawa, an internationally known curator,

built small shelters for a permanent art exhibition on Inujima. Landscaping is by the Tokyo based landscape architect Akarui-Heya (a brilliant room). In 2014 by responding to the call from K. Sejima, Yushi Uehara stayed on the island with his family for a month, run small landscape interventions.

On 2016, K. Sejima, with Y. Hasegawa, conducted a series of workshops to alter landscape by means of a new garden on Inujima with internationally renowned Universities such as University of Applied Arts Vienna, Politecnico di Milano, Kyoto Seika University. With presene of Fukutake Foundation, K. Sejima invited Uehara for the workshop designing T-garden (working name) with Akarui-Heya, whom now moved to Inujima with the aim to change the course of this depopulating island. I entitled my work as Foreign Species and brought member of Uehara Laboratory and a voluntary second year student to this workshop.

The process of landscaping is recorded in the videotape and presented in the La Biennale Venezia - 15th International Architecture Exhibition in 2016 as the presentation by SANAA/Kazuyo Sejima and the artistic director Y. Hasegawa.



Photo 1: Inujima begin Showa period

1. Introduction

In 2014, Inujima is an island with About 47 inhabitants with average age of 74.5 years old. Till today, Inujima has historically transformed its structure; from base of a private navy; stone quarry; red-light district; recently copper processing factory; and currently the base of art. On 2010, K. Sejima, a Pritzker laureate architect, and Y. Hasegawa, an internationally known curator, built small shelters for a permanent art exhibition on Inujima. Landscaping is by the Tokyo based landscape architect Akarui-Heya (a brilliant room). The island now has become the unfolding site of Art houses - ie (house) projects - in accordance with the confirmation between the village mayor and the Fukutake Foundation. Modern art of larger scale in an authentic Japanese island appears seductive. Seen from the Western countries, the landscape of Setouchi is magnificent. To live there will be a proof of success.

Y. Uehara, the writer of this paper, has visited this island in 2014 and stayed there for a month. I run several experiments concerning spatial perception of the island, such as opening up the vista of the island from a pathway toward a back of a house. This act reveals what is hidden behind the bushes, which was once lived. The other plan was to reopen one hundred year old mountain path that cut across one hill connecting elementary school to the beach. I also sketched an intervention on the sea. Because Inujima Island is an archipelago, it has two channels facing the main island. I thought of constructing an under water bridge, just about 5cm under its surface, that let visitor walk pass to the other side as if they were walking on the water surface. The discussion took place with the village mayor upon which a vista project got green light, which I undertook it.

The island now welcomes over 100,000 visitors annually. Now migrants from Tokyo aim to participate in the island life and aim to alter the course of development. Celebrated by the contemporary art scene, the island now is about to become a ground of experiment to see if art can influence her population dynamic; should it make difference. Because both inhabitants as well as the Foundation wish not to turn the island into urban site, a question appears; shall we call it an urbanization, transformation or modernization?

2. Frame: Art on aged, depopulating island

Inujima sits in Setouchi-Sea, which is left behind

for decades, now booms with the art projects. We can say that Fukutake Foundation currently applies the recent history of Naoshima as the methodical model of Inujima's development. Because Naoshima celebrates a numbers of architectural works by Tadao Ando, we can expect Inujima to follow suits. Yet there are issues such as the scale differences or numbers of visitors that Inujima can receive, which defines the amount of capital that can be invested. Fukutake family in late 80's participated in Naoshima as someone who was born close, but in Okayama prefecture. Later on Fukutake starts Setouchi Art Biennale with Kagawa Prefecture. It has been said that Okayama is not as dynamic as Kagawa Prefecture is in promoting new business.

Fukutake foundation operates in the belief that Economy is the servant of Culture. This credo more or less reveals its principle of entrepreneurship in the education business. Because it succeeded so far in slowly urbanizing the islands, we can believe that this is a workable method for urbanization in the remote island. Fukutake Foundation has initiated a numbers of original art exhibition in Naoshima. Among them was twist exhibition by Issei Miyake, where Miyake stated that the mode of 21st century is the mode of recycle. It has been said that Fukutake Foundation has supportive to this vision on 21st century. It state Make use of what exist, create what is absent.

At Naoshima, the Fukutake Foundation intervened first as establishing a camp terrain on the southern part, where it consists a part of national park. Later on this small project developed in a larger scale by the hands of architect T. Ando. Besides these current narratives on Fukutake Foundation, Naoshima has its legends; it has been said that Naoshima forms a part of Kibi Country, which is one of the original country that formed the ancient Japan. Obviously, Fukutake found it relevant to



Photo 2: Inujima today has over 85000 visitors during Setouchi International Art Festival.

associate ancient culture with modern art in order to reinstall this legendary importance of KibiCountry. Art and culture linked the tradition and innovated the island.

Naoshima succeeds in transformation¹⁾. The last fifteen years, the rate of population decline has slowed showing the effect of art causing influx to the island, Visiting the island gives an impression that the rate of Urbanization of Naoshima seems to be not significant. This is important as Fukutake Foundation do not agree with a radical urbanization.

K. Sejima and Y. Hasegawa first made project in Inujima in 2010 with House-F, House-S, House-I and Hut on Nakano Tani. The projects are implemented with the garden designed by a Tokyo based landscape architects unit Akarui Heya (a brilliant room). This unit has move to the island in the early 2016 with the idea to participate and alter the course of development of this Island.

According to Atsuo Hashizume of Akarui Heya, the curator Y. Hasegawa set program for them to transform the landscape of the island. Akarui Heya took it literally about which created intriguing debates on the future of island. Now, A. Hashizume and Y. Kizaki work on the landscape transformation of the island with the dream to increase the population over 100 with average age 35.

3. Actor Model Urbanization

The works done by both K. Sejima and Y. Hasegawa is backed by the Fukutake Foundation, as long as it is in accordance with the village's mayor. Historically Inujima has very limited infrastructure development. Obviously the island has ferry connection to both Houden harbor on Okayama landside and to Naoshima, but this connection runs in very restricted capacity. These facts on their development pattern support the view to define it as Actor Model Urbanism, where human activity rules the course of urbanization rather than infrastructure interventions.

Actor Model Urbanization is the view to position human activities as the driving forces of the urbanization. This principle is fundamentally identical to an authentic model of urbanization in European cities. Actors are defined by the profiles of activities such as; government that controls and issue policies; capital that invest funds and make turnover; and citizens that uses the facilities and pay costs. I have analyzed well-known Chinese Urban Phenomenon, The Village in City

(ViC), by applying this Actor Model to it and exhibited a numbers of international biennale such as Venice Architecture Biennale 2004²⁾. The reason why I focus in Actor Model is because; this model is significant for the type of urbanization with no infrastructure investment; it reduces the role of central government; it make use of very flexible development method where the use of resources can be controlled by the users. Actor model at ViC has clear deductive social plan but operates in inductive process of projects implementation. A village to have aim to transform itself as responses to the market demands, by regarding their terrain as the field to supply real-estate in demand at suitable price. At ViC the land development is undertaken by means of a almost ad-hoc amputating land use changes.

ViC is an extreme case that its course of development went off the line. Yet as I noted above, the most European Urbanism eyes Actor Model as the principle of human structure to implement urbanization. The difference is that in Europe, it is considered as model rather than ViC's accidental course of operation; Actor Model defines human roles in the process of urbanization and bring understandings to the negotiation that each individuals under take. The difference of Actor Model Urbanization that I aim to focus here is that here the development do not apply known infrastructure intervention as the main method.

We can say that Naoshima is based on Actor Model. Naoshima has neither highway nor railway that supports

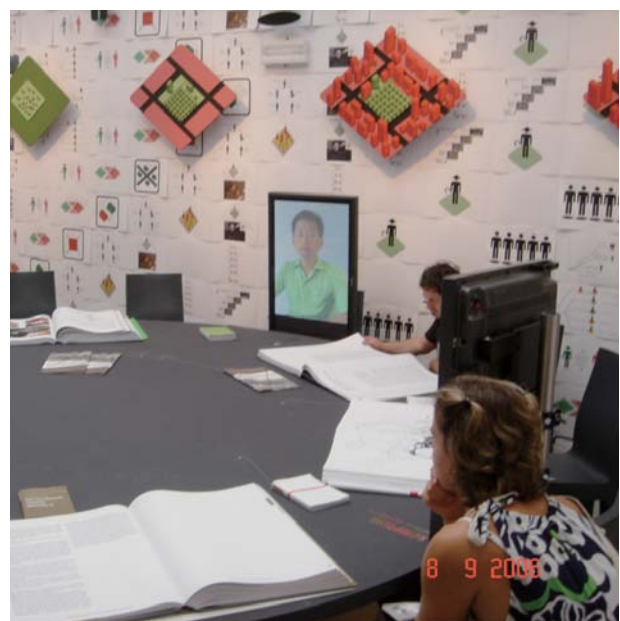


Photo 3: a view from Exhibition on author's ViC research at the Venice Architecture Biennale 2006

or link island to the main island. It has boat but it restricts the quantity. Even if it is, Naoshima succeeded to alter the impetus of population dynamics. The most important aspect of Actor Model is that it allows a rural lands to keep its form of cohabitation in an authentic country side mode of agglomeration that is beneficial for long term social role of keeping its identity, promoting tourism, promoting local culture that creates diversity. Diversity in general is the current topic in as much as Smart Growth is; a reinforcement of regional economy as it bands width of the human activities through the changeable periods. Working on Actor Model urbanization in a Japanese locality can therefore be an important method.

4. Art & Culture as the method

At Inujima the village mayor who is in close contact with Fukutake Foundation represents the actor citizen. Inujima is where architects and curators work as director of urban transformation as a part of the long-term art-site project³⁾. In the most depopulating area where aging takes severe effects, often development suffers lack of interests from the Capital Actor¹⁾. The Setouchi model of urbanization is starting to be recognized nation wide⁴⁾. We can say that in the case of Inujima art curator and architect, the player who finds no place in a generic actor model, is the deputy agent of the Capital Actor and communicates actively with the stakeholders.

In addition to this form of participation of art at Inujima, architecture and culture to the process of urbanization, there is one more key player to notice. Because Setouchi art festival is an international event, which collected 940 thousand visitors⁵⁾ in the first year,

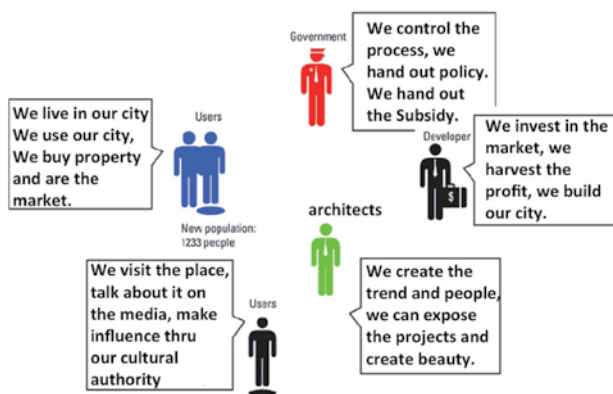


Figure 1: Actor Model explanation on Inujima, where architect holds a stake towards future. The actors on Inujima consists of Authority, Capital, User(villagers), Floating population (foreign intellectuals) and architects, which is curator and architects.

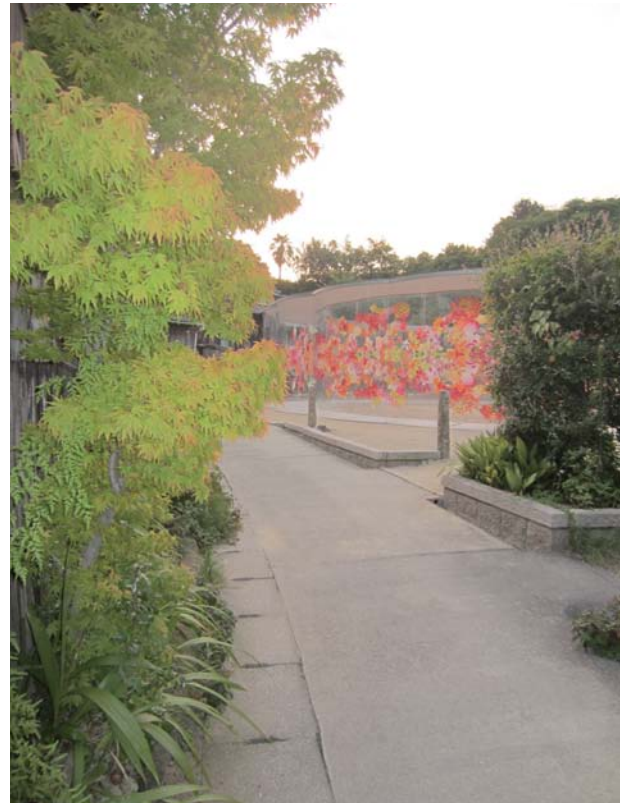


Photo 4: Inujima scape today celebrates modern, nature and authentic.

there are considerable amount of foreign population on the island during the period. In 2010 there were 85 thousand visitors on "Inujima" alone. We can call this a floating population of the "Inujima", an unregistered foreign nationality and highly educated groups of people. Population dynamics in the most case does have residents that participate in governance while floating citizenship support quantitative aspects where capital actor can control its investment.

By the arrival of the Setouchi International Art Festival, Inujima is thus transformed into the ground where; temporary international visitor play the part of citizens role; where domestic citizens act as stakeholder, who profit from the numbers of this floating citizens. The crucial role of art curator in this case is that this player controls the expert knowledge of the amount of this floating population. The crucial role of architect in this scene is that this player is the expert who has understanding of the authenticity of the Island as the scenery in the past, present and the future.

Art economy⁶⁾ has peculiar effects, as it does not aim immediate financial return as the most priority. It has longer-term view to help support raising the growth of the domestic culture. As Fram Kitagawa reported during



Photo 5: a street view of Inujima. There are only two cars on the island.

his lecture at our faculty this year, the large capital is starting to recognize the added value of promoting the event via their stores in the center of Tokyo. It has the effect of experience economy that now stimulate to experience the remote site where art works talk about the senses of sustainability and life, instead of will to spend. The Fukutake Foundation's model is Naoshima; The First participation was a permanent camping site at the southern end of the island then Ie (家) project spreading across the island. Then, it introduced focus point by means of architecture of T. Ando.

Inujima belongs to Okayama Prefecture. This is an exception to Setouchi Art Festival; the island belongs to Okayama pref. not in the Kagawa Prefecture. It has been said that unlike Kagawa Prefecture local government authority of Okayama is a dormant actor in Inujima. This appears in the infrastructure that Inujima has. The island has a better connection to Naoshima than to the landside Okayama.

5. Hypothesis: urbanization and Influx of population dynamics

I take hypothesis that Population dynamics, which led by the Actor Model, makes the urbanization⁷⁾, but

infrastructure does not (anymore). The actors undertake urbanism: capital, authority and users. Urbanism is a belief that 2 dimensional plans that define use of ground can control influx of people and control space use. The case Naoshima showed a potential in turning the course of development of an aged depopulated area into a place in demand. The key here is the effect of placing art in a public space: art can work as the key to increase influx of population.

In case if Inujima's development follows the one of Naoshima, it will in the middle run create influx of inhabiting population. Interestingly Akarui Heya, who participated in Inujima project as the landscape architect of architectural project, now moved to the island. It may take conversations with local inhabitants to bring the transformation faster to the direction that a migrant wishes to have, but the process is now kicked off.

To change the momentum of depopulation at Inujima, to increase the visitors is the answer. We have worked on the landscaping project in Inujima, but not art. This is because the landscape complements still standing built environment, which include art pieces. While Art gives an objective for a person to visit the island, the landscaping can confirm their expectations on the authenticity of the island as the selected place for art exhibition⁸⁾.

The visitors of the world look for a moment to encounter an authentic native landscapes and spatial experiences. It is foreseeable that an island with an authentic landscaping will produce more visitors' satisfaction and therefore create more repeaters than other. Yet because the population of the island is aged and depopulated, the landscape was left as is in the most areas, ending up bamboo to replace indigenous plants sorts. Thus the landscaping concept is formed to remove wildly grown bushes and ready it to reveal the hidden spatial experiences of the island.

It has been said that men associates the notion of growth with landscaping, which is the art of our environment. This plays the key especially if the island becomes the destination of migrarion, because he can steer the future of an island to attract influx of population It is worthwhile quickly reviewing the usual way for a depopulated village to welcome influx of migrant. It is often the case in dilapidated French or Italian villages to change the ownership into the hands of groups of pensioner who seeks to build own ort of



Photo 6: Inujima today consists of indigenous, migrants and international visitors and stakeholders.

retreats. In some cases the group establishes a summer cottage or two, which is built in an authentic method of construction, to create lively sphere. In other cases, seen especially in the case of London's active financial sector workers, who invests in an authentic remote houses and recover it to an authentic level, equips it with pristine natatorium and treat it as commodity. These transformations do not work in a Japanese village mainly because there is no summer holiday custom that creates market for vacation ort; the indigenous inhabitants of the village often hold its controlling stakes even if the agglomeration is in an inauspicious condition.

In the case of Inujima the migrants are mostly related to project members who worked on the island earlier. The migration is therefore decided on the basis of acute knowledge on the island, with a perspective. This type of migrants do have in mind for urban politics that aims to be the one who exercise a controlling stake of the place. The landscaping is a mutual point where these three players, indigenous, migrants and foreign visitors, share the interests, which creates the impetus of urbanization.

The landscape project will create outlook of growth for a person with social, urban political, freedom seeker; motivated participation minded migrants, which works well to develop island further.

6. Key logic: Foreign Species

Among the works undertaken on the island currently, I give lights on one concept as the crucial issue: Foreign Species. This method not only derives from the symbolic understandings on population dynamic, of influx of migrants into the island, but also based on the study into the flora and climate zone unique to the island.

The island situate in Setouchi Climate zone, which is stable and mild temperature and concentrates rain



Photo 7: a process of T-Garden workshop with foreign species.

in both during monsoon and during typhoon season. Recent trend of raising temperature is applicable⁹⁾. During summer it often raise to a subtropical climate. The island also went through a series of drastic transformations according to its changes in industrial forms. During the early 20th century most drastically the copper refinery industry has produced condition by which most of the trees on the island ceased to exist and become hills of rock. Fortunately the impact still allowed vegetation to return¹⁰⁾. For the workshop Akarui Heya has chosen flora from all over the world, which will find the climate of Inujima well. (see the list of flora that we have used.)

K. Sejima expands her teaching projects on the island to make new garden. Sejima had run design workshops with internationally renowned Universities such as University of Applied Arts Vienna, Politecnico di Milano, Kyoto Seika University and our University of Toyama. K. Sejima run researches on the island including the geography of the island, types of flora, measuring the houses in the village and its surroundings and so on.



Figure 2: the position of the T-Garden (working title) mounted on the map of Inujima by SANAA

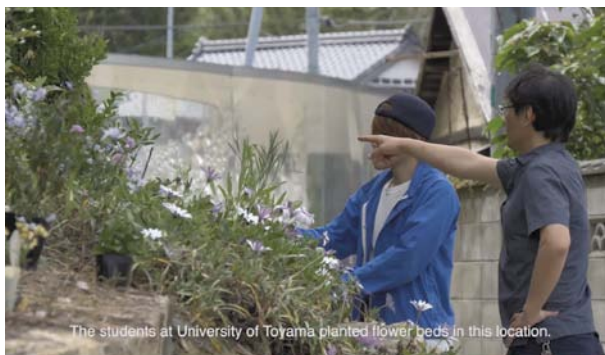
7. Design

The garden finds itself on the southern edge of harbor village looking toward north to the village. It situates along a popular walking path, which many villagers use. Walking from the east, it is also along the planed pathways to visit art-houses on the island. The visitors pass through this garden then walk down to S art-house and A art-house, while the locals approach its east corner in the right angle directly from the harbor. The garden was a location for a house, which was decayed and removed some years ago. The site was cleared by Kyoto Seika University in advance to our work, it went through; Find place, Cut grass, Evaluate the location.

What was expected to me for designing this T-Garden was to come up with the logic of composition for the floras. I believe when a visitor find this tiny garden with foreign species, he or she will look for a reason to confirm why this is an authentic garden of Inujima. As walking by, he or she will look at the garden from many directions. Because the garden is lifted about 1.4m above the undulated site, the mode of viewing therefore is like laying close low down on ground, like removing one dimension from your spatial experience, which misleads one's perception on depth. This will create the effect of sliding multiple sceneries as one walks by. I aimed to make use of this new mode of spatial experience, of the sequence of viewing into the logic of composition. In this experience the garden shall deliver; I proposed to make groups of flora according to its volumes, or transformation of its volume in time line, and composing them as if it were a stone garden, in other words as if it were a scale less composition of a larger landscapes such as rocky coast line, a village between the hills or a modern city.

Peculiarly Akarui Heya understood it as if it were an urbanism. As landscape architect Akarui Heya had acute knowledge about expected growth in timeline. Flora were chosen in the three categories: domestic flora, ground cover; trees. Akarui Heya prepared each categories of flora by mixing certain amount of Foreign Species.

On the site, there are series of plants already planted (see the list) forming patches. The selection was made to remove what Akarui Heya and Kyoto Seika University deemed not effective. We planted ground cover flora on along the edge of the plateau, which set timely order according to the walking movements along the wall. We



The students at University of Toyama planted flower beds in this location.



Photo 8: The extracted scenes showing the participation of Toyama University Uehara Laboratory from the movie presented at the 2016 Venice Architecture Biennale.



Photo 9: T-Garden sits about or 1.4m above the passage. The landscape design unit Akarui Heya lives and works at Inujima Island.



Photo 10: The garden with planted greenery. Eucalyptus is now still about 1m tall and planted on the right side end of this photograph. It may take several years before it starting to show true intention of the design.



Photo 11: The small tree on the right is Eucalyptus.

have selected several focal points where heights can be explored and arranged an imaginary pattern of spots for the taller plants on the plateau with the outlook that the pattern create effective multi layer. In unfolding the allocation of taller plants, we made sure to treat the background of laurel forest (照葉樹林) as the backdrop. The basic idea was to form crescendo towards the west while addressing two focuses; giving accent on the center; the east end of the garden where two paths come together. We planned to cover the relatively open ground area further behind with diverse ground cover flora in a random allocation.

The west end of the garden continues to S art-house and to A art-house, both are visible from T-garden along the full length of its perimeter. The perspective narrows down, because of the house on the opposite side, for which we see opportunity to mix colour of foreign species leaves reflecting colours of the townscape. Eucalyptus was placed here. In the center next to domesticated German Iris we placed Mock orange, to create Sensation with combination of domestic plants and foreign plants. At the west end next the Y crossing, Akarui Heya had placed slender deutzia in a peculiarly laying manner, which is a natural posture due its long and flexible stalk, in such a way that it almost forms an arch that frames the view of everything that happens behind.

Through this composition we are expecting annual transformation beyond the deductive notion of designer, and exhibits energy of growth. This shall be the symbol of participation; to give a form to notion of growth of this island.



Photo 12: A snapshot showing the conversations with the inhabitants of the village continues through out the process.

8. Sum

Island is changing. Even though the landscape intervention that I mentioned here is an on going project, I can bring up useful sum. We chose Foreign Species as the theme of the garden. This pattern of thinking, to invent the theme of project on the basis of human migration, is not originates in Western culture. It is produced by means of analytical, metaphorical thinking and crucially could not be materialized with limited acute knowledge on bio diversity and will to investigate. As the landscapes grow the concept will transform to the other. Men said Japan is a copy-past culture for which I believe I can deliver an opposing example. It is to be seen if this investigation materializes the set goal.

This project is motivated by the spirit to search true shape of a 21st century remote countryside in the age of worldwide art-scene community. To define 21st century is not an exclusive right for a western culture. With brilliant awareness of time space we live in, Japanese local culture is a fertile ground for it.



Photo 13: shot from 2016 Venice Architecture Biennale.

Garden making with the aim to turn the course of depopulated area is not a work of single individual or it shall be left to a single-minded decision-making. Rather, the project starts at the moment when the participants see it as collective initiative.

Garden is prepared for a free, and free minded, view at no costs for anybody. The ground of this intervention is charity and interests and not motivated from will to prove ideology nor narrowing of perception of this island.

The contemporary urbanization till today is driven by the unspoken paradigm that an all-embracing infrastructure of large city creates the culture. This example unfolds approach that is based on human interests on culture, that the migration is the force of urbanization. Actor Model is useful as this system allows controlling physical shape of intervention and maintaining an authentic townscape, which is the principle ground to attract foreign visitors.

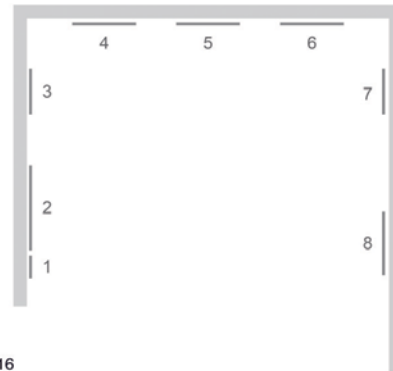
In all cases, to scove a physical changes when a depopulated island turn into a place in demand by



Photo 14: snap shot from 2016 Venice Architecture Biennale.

Inujima Landscape Project

SANAA, Architect
Yuko Hasegawa, Artistic Director



1. 2.
Drawing, 2016
SANAA

3.
Video, 2016
SANAA

4.5.6.
Video, 2016
SANAA
Yuko Hasegawa, Artistic Director
Yoshihiro Inada, Videographer
Courtesy of Kenji Aoki, Toshiyuki Abe, Tomoko Abe, Keiko Arimoto, Chie Sugita, Sachi Kakimoto

7.
Video, 2016
SANAA
Courtesy of SANDWICH, Haruka Kojin, ISHINHA, Damien Jalet + Kohei Nawa, University of Applied Arts Vienna, Politecnico di Milano, Kyoto Seika University, Toyama University, Mari Hirata, Sachi Kakimoto

8.
The Master and the Slave: Inujima Monogatari, 2013
Jun Nguyen-Hatsushiba
Single channel video installation
Courtesy of Mizuma Art Gallery, Tokyo & Artist
Commissioned by Benesse Holdings, Inc.

Figure 3: Layout of SANAA/Yuko Hasegawa's exhibition at the 2016 Venice International Architecture Biennale.

a younger generation, the Inujima model of Actor Model describes possibility where outlook on future be controlled under stakeholders negotiation who inhabit on the island. The development paradigm by infrastructure shows limited possibility to intervene in a remote places where it suffers depopulation and it may lose authenticity of the place drastically in the scale it is no longer reversible.

The List of flora

【trees】

Mock orange, バイカウツギ, *philadelphus satsumi*

Slender deutzia, 斑入りヒメウツギ, *deutzia gracilis f. variegata*

Kabosu, カボス, *citrus sphaerocarpa*

Eucalyptus, ユーカリ, *eucalyptus*

Nikko maple, メグスリノキ, *acer maximowiczianum*

Smooth hydrangea, ピンクアナベル, *hydrangea arborescens 'NCHAI'*

Mulberry, マルベリー, *morus*

【plants - newly planted】

Pincushion flower, スカビオサ, *scabiosa*

Dianthus, ナデシコ, *dianthus superbus L. var. longicalycinus*

African daisy, オステオスペルマム, *osteospermum*

Vervain, バーベナ, *verbena*

Blue wings, トレニア, *torenia fournieri*

Dalmatian bellflower, ベルフラワー, *campanula portenschlagiana*

Sutera, バコパ, *chaenostoma cordatum*

Mint, ミント, *mentha*

Dichondra, ダイカンドラ, *dichondra*

Maidenhair vine, ワイヤープランツ, *muehlenbeckia axillaris*

Australian violet, パンダスマレ, *viola hederacea*

Green purslane, ポーチュラカ, *portulaca oleracea*

Geranium, 斑入りゼラニウム, *pelargonium hortorum*

Corn cockle, アグロステンマ, *agrostemma githago*

Lantana, ランタナ, *lantana camara*

Sage, サルビア, *salvia*

Globe amaranth, センニチコウ, *gomphrena globosa*

【既存植物 (もともとあったもの)】

German iris, ジャーマンアイリス, *iris germanica*

Lily, ユリ, *lilium*

Christmas rose, クリスマスローズ, *helleborus niger*

Lance-leaved coreopsis, オオキンケイギク, *coreopsis lanceolata*

Cape marigold, デイモルフオセカ, *dimorphotheca*

Fig marigold, マツバギク, *lampranthus spectabilis*

Dusty miller, リクニス, *lychnis*

Treasure flower, ガザニア, *gazania*

Canna, カンナ, *canna*

Credits of photography

Personal collection, Photo 1

Yoshihiro Inada, Photo 2,7,8, 13,14

Akarui Heya, Photo Photo 6,9,10,11,12

Naoko Kawachi, Photo 14

Yushi Uehara Photo 3,4,5

Reference

- 1) 事例研究現代行政 I 最終レポート「直島における地域活性化の事例研究」、児玉周丈、東京大学院公共政策教育部、2015、12ページ
- 2) Unknown Urbanity in China - Village in City, Yushi Uehara, International Forum of Urbanism 2005, Beijing.
- 3) <http://benesse-artsite.jp> (September 1, 2016)
- 4) See: Niigata Echigo-Tsumari Art Field, www.echigo-tsumari.jp (September 1, 2016), curator Fram Kitagawa. Fram Kitagawa is born in the region. Oku-Noto Art festival in preparation also curated by Fram Kitagawa. <http://oku-noto.jp/about/> (September 1, 2016)

- 5) Overall report on the Setouchi International Art Festival 2010, the organization committee of Setouchi international Art Festival, http://setouchi-artfest.jp/seto_system/fileclass/img.php?fid=news_topics_mst.20151229214854ded891f34187bd8e1813fd3742edddbc, page 10 (September 1, 2016)
- 6) In 2012, the production of arts and cultural goods added more than \$698 billion to the U.S. economy. This amounted to 4.32% of GDP. <http://www.nasaa-arts.org/Research/Key-Topics/Creative-Economic-Development/Facts-&-Figures-on-the-Creative-Economy.php> (September 1, 2016)
- 7) General information to be found on this topic at, <http://www.prb.org/Publications/Lesson-Plans/HumanPopulation/Urbanization.aspx> (September 1, 2016)
- 8) Psychological & Social Benefits of Trees, Nature & Plants, Kathleen L. Wolf, Ph.D., University of Washington USA, 2011
- 9) 瀬戸内海の現況などについて (主な関係情報)、環境省、ページ2
- 10) See history of vegetation of Adriatic coast line.

Note

*1 according to the Law describing Measurements for Depopulating Area (過疎対策法), the measurements are undertaken by the two actors, government and citizens where the governments actor consists of three scales: nation, prefecture and local city.