IDEA OF HOUSE

HOUSE: what's in the box anyway?

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Environmental degradation and the wood-frame box—why do humans repeat the patterns?

Abstract
The American ideal of a house is nothing more than a box of wood. The box has doubled in size over the past 50 years, has never realized true costs, and contains even more "stuff. Yet the HOUSE is still a box made of wood repeated on every street, on every farm, downtown, uptown, it has no social barriers. But it is this box that contributes to deforestation, overuse of utilities, dysfunctional communities, and changing landscapes.

Changing landscapes is innate to all species. (e.g. beavers-ponds/damming; ants-leaf cutters; humans-cities). Is it possible to change a landscape so drastically such as to invoke a shift in human culture? Or perhaps the impact of environmental changes could bring a culture to extinction? *And does it matter anyway?*

This paper looks into the understanding of why we chose to build the box; HOUSE. Beginning with the fundamental structure of the mind and innate language, we see that building shelters is a biological function for the existence of humans. Secondly, the patterns of repeating the box are likened to Bordieu's habitus, with support from Rudofsky and Glassie as part of those decisions that are human-nature to err for efficiency.

This brain-searching study concludes with an epilogue that questions the pathway to the future of human culture, its choices and whether technology will be its saviour.

A matter of (the author's) perspective

HOUSE, (the reference to the wood-frame box, which is different than the general term of house), is created and recreated to continue some underlying order. People are not happy with the HOUSE. They don't understand why they are uncomfortable, or why they are driven to constantly want change. Perhaps they are driven by economics and social status. But does their house function environmentally for them? Naturally or artificially? Does it provide human comfort? Does it promote the "village" that supports their community? Confidently most would answer "no." Furthermore, people have lost their desire to build their houses, either due to a lack of time or lack of interest, but are disconnected from the satisfaction of creating their space and shelter. Henry Glassie, author of *Vernacular Architecture,* asks if this does not have consequences, as well?

Fig.1. Thinking outside the box.

In order to understand the consequences or the externalities of the choices we make in building the HOUSE, why we build and design the way we do must be analyzed. As people become aware that their building behaviors are impacting the environment, they will have to make cultural choices. But are these repetitive types and patterns, automatic without conscious thought? Or are they deliberate? Hence, the same original question, is it *human-nature* to accept efficiency, such as the one time design of the compass, and practice that design repeatedly? Or are humans changing nature

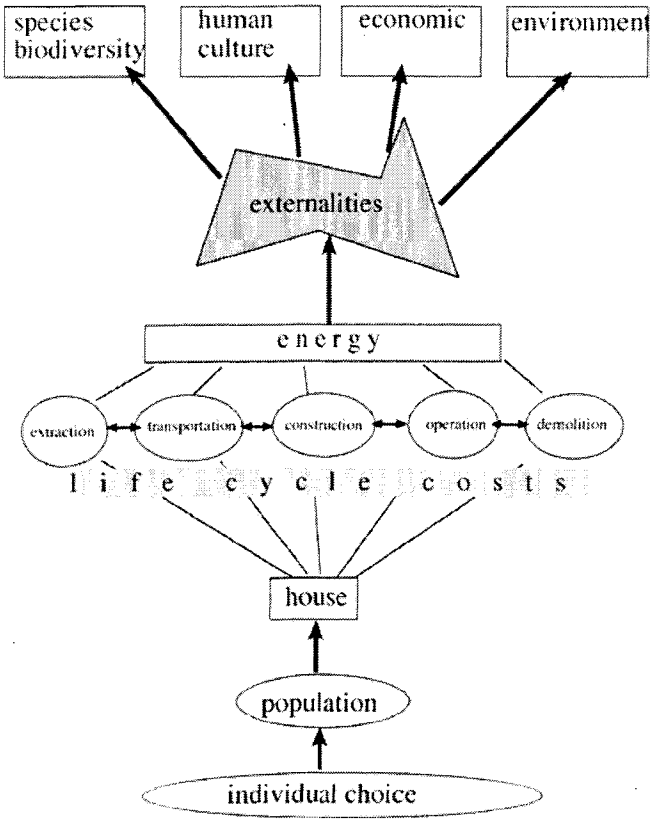
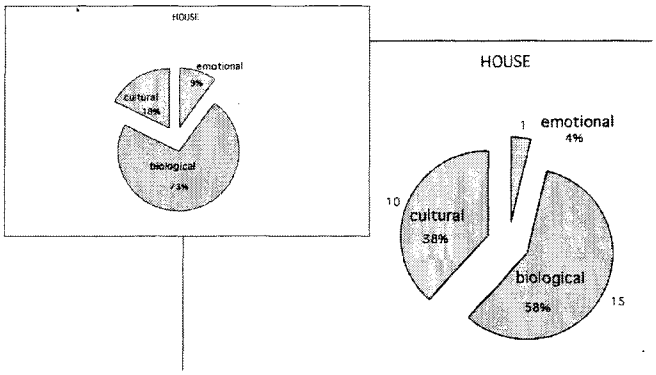


Fig.2. From individual choice to externalities. Each shape represents the logic in modern day pathways of the HOUSE.

with a conscious driving force? The answer is in how humans think about their place in the universe. New findings will not specify how we *should* think of humans and their place, but just as did Darwin's *Origin of Species*, they will probably influence how we *do* think, and it will probably take us many years to readjust our attitudes. At present we make fundamental distinctions between animals and humans, and this distinction guides our ethical code and actions. (Diamond, 1992)

Let us look at the current status of HOUSE from a technological view: There are approximately 1.5 million new homes built each year in the United States, of which at least 90 percent are framed in

Fig. 3. A survey of environmental science classes were asked to write a word to describe the word HOUSE, some answers were warmth, heat, peace, home, etc. Subjectively, they were divided into categories of biological, cultural, and emotional since these were the most common answers. Both sets of results link the word HOUSE to a biological sense.



wood. (Gossen, 1993). Not including sheathing, flooring, roofing, and cabinetry we assess over half a billion studs are required annually to fulfill the single family house trends. These numbers further equate a single house to consuming 44 trees, 13.97 tons of concrete, 6,212 sq. ft of sheathing, 2,325 sq. ft. of exterior siding, 3,100 sq. ft of roofing material, etc., etc., etc. (Watershed Media, 2000). Despite this staggering volume of materials and waste, many professionals believe that stick framing remains our most practical and efficient way to build. And towards this end, efforts have been underway for decades to engineer, optimize and create technology to retrofit these wooden boxes.

Understanding WHY with the help of Chomsky

Chomsky speaks of cognitive thinking and the patterns of language as being innate and hardwired. Through these symbols and patterns can we determine if the building of the HOUSE is deeply rooted in the cognitive hardwired thinking? Or is there some development such as Bourdieu's "habitus"? (That thing than underlies the habits and behaviors of people), that defines the patterns that occur? Whether HOUSE is hardwired in our thinking, or a developed pattern, it is a

symbol, common, consistently repeated, and accepted because it is the "norm."

Accepting the norm of society seems to be the "American Way"- where cultural identities are reflected in the types of houses established. Mostly, we see the wood frame box as a common style, but still there are some pockets of cultures within the regions of the United States that have chosen not to be part of this "norm," or majority. They have developed functional models of shelter that actually work with their culture, their environment and their "village." Some examples are the Native American and Hispanic people of the Southwest; African Americans in the Mississippi Valley; Germans in Pennsylvania, Cajuns in Louisiana and Mormons in Utah. All were a minority of social people that would not subdivide, and who did not comply with the clear majority of the 19th century rule. Why then do the majority of people follow this norm of the box and others make a cultural choice not to?

Humans, just like any other species require shelter in order to survive. For a very long time, the "idea" of shelter subscribed to an underlying order, *human comfort*. Is this underlying order "taught" through the generations, or is it an innate blueprint for a global fundamental understanding? Noam Chomsky states that "The human brain has an innate language faculty and part of this biological endowment is a system of principles common to all languages (Maher, 1997). Language is fundamental to our humanity. It is used to understand ourselves, others and to deal with the reality of our world and engage in acts of meaning.

If accepting that language is fundamental to modern Homo sapiens, we also associate that words, symbols and patterns help in defining their language and bring meaning to their world. For example, whether we talk about cladistics or taxonomies, one of the defining attributes of Homo sapiens from its brother Homo troglodyte (the modern chimpanzee), language is it. And the symbol of modern humans today is HOUSE, this is of course, next in priority to the automobile, but that's another debate.

Let us take a look at a few more assertions with reference to Chomsky that support this idea:

1. "Language is so close to our *Being* that we frequently do not notice it." *Chomsky* (Maher, 1997). And because of differences in language diversity, we pay little attention to potential similarities. We all "know" the same language, even though it is superficially remote, *Chomsky* (Maher 1997). Making common analogies to Chomsky's observations, we can look at the face of modern housing in the United States. What we see is the repetition and production of wood-frame houses. Even though the facades have some differences, there is still the same underlying "symbol", the language of the wood-frame house that continues to be recreated.
2. "Language, like the movement of the planets and gravitational constants, is taken for granted. People have no intuition about the Rules of Classical Physics" *Chomsky* (Maher, 1997). Henry Glassie, in his search of vernacular architecture in the United States, makes a statement that "people don't build their houses anymore." What he refers to is the idea that people are disconnected from the understanding of what it requires to build a house. Even more important is the fact that because we are not "builders" using our hands and our physical strength, we are somehow disconnected from the earth, from our culture, and have become followers of another underlying paradigm called Economics. Therefor, if we do not build, we are not connected and we do not understand the Rules. Whether it be the Rules of Classical Physics as stated above by Chomsky, or the Rules of building houses, the intuition about these Rules are taken for granted.
3. "The aspects of things that are most important to us are hidden because of their familiarity (one is unable to notice something because it is always before one's eyes)," *Chomsky* (Maher, 1997). Familiarity drives us to be comfortable within what is acceptable amongst our culture. For instance, if one rides his bike to school everyday, and takes the same path, which usually has been followed due to efficiency, the aspects of the trip will become unnoticeable. If we relate this to the HOUSE, we can also say that if we become accustomed to the way a house looks, or a certain order that is created from living in the house for awhile, then we begin to forget the aspects of the HOUSE. Such as what materials the walls are made of, how they feel, how much sun comes in the window, etc. A

round-house or an underground house is alarming to most people and they don't understand why.

Considering language as our humanity, one language is no more a language than another, but serves as a map. For instance, Chinese is no more a language than Romance, but it defines boundaries of types and styles. We can also make the same assumptions for styles of architecture when we look at photos of a pagoda and a Victorian house, or a map that defines meaningless boundary lines across the globe. We may never find out why one culture chooses one option and another not, but what we do know is that these cultural choices do affect the HOUSE, and it does have direct effect on the environment

The structure of every being is related

Darwin, from the *Origin of Species*, states that "The structure of every organic being is related, in the most essential yet often hidden manner, to that of all other organic beings, with which it comes into competition for food or residence." Therefor, all species are related, without conscious thinking when it comes to fundamental orders like searching for food and for shelter. Thus, using evolutionary theories to support shelter as an innate biological process, humans are driven to build one just as any species.

Another idea supporting innate processes such as Darwin's is from Otto Jesperson, a Danish linguist. He states that "there is an innate structure in the mind. It underlies free expressions and linguistic use is an individual property." It is likely to involve morphology (the biological study of the form and structure of organisms) and lexicon (a vocabulary used in a particular profession, subject or style) (Maher, 1997). How does the HOUSE fit into this thinking pattern? For example: I want to enter my house through an invisible force field! This entry is already structured in my mind that it must be a portal of some kind, but my free expression allows me to make it invisible rather than a slab of wood like most common doors. The portal is that idea set in the lexicon vocabulary, specific to the instructions of how to build a house, but defined within that underlying order.
destruction of our environment? Or the loss of tactile responses in the houses we live in? Or the smells that causes health problems? Or the deafening of the infrastructure? Economics, technology, rebellion against an Old World government, habit through repetitive behavior and efficiency seems to keep us in this perpetual building pattern. But what if we returned to our senses? These questions lead us to examine the idea of vernacular architecture. That design that uses local resources constructed with the local environment in mind, simple, modular, mobile, tactile and what most architects call "non-pedigreed" architecture.

Non-pedigreed Architecture

Non-pedigreed architecture is the creation of structures by and through people outside of the known cultural lists of history. Architectural history as it has been written and taught in the western world has limited its vocabulary to only a few thousand years and also to select cultures. It represents only a small part of the world and an even smaller part of the evolution of the ideas of shelter. The archaeological record now confirms that history has been selective in its understanding of shelters of people from the past.

Even before people were building shelters there were animals constructing their platforms, dams and structures. For example, the bowerbird, a small jay-sized bird, constructs a hut roughly eight feet in diameter and four feet tall. He decorates this hut with hundreds of collected objects, placed with the sole intention of acquiring a mate. One would ask why the small sized bird would need such a large hut to attract a female? And are humans any different? In our anthropogenic views, man would somehow think that he created dams before beavers learned to, or that he is the only animal that creates enormous shelters, but humans are not much different than the bowerbird. We too chose our ornaments of clothes, cars and houses to allure and make statement of our ability to be a better mate.

Yet even before man and beast walked on the earth, there was architecture, carved from the wind and water. Part of the trouble of the anthropogenic view is ascribing to architects and specialists as to having exceptional insight to living, when in fact most of them are concerned with problems of business and prestige. (Rudofsky 1990)

Focusing on business (building efficiency and profit) and prestige could be the driving patterns of housing in the United States,

economists think so, but given the underlying order of a biological need for shelter there supercedes a secondary value that creates the HOUSE, it is ascribed to human culture. But everything involves costs as well as benefits. In the animal world there is nothing that is free, it is always in constant use of space, time and energy.

The Perspective according to Bourdieu....

Another perspective of the evolution of HOUSE begins with Pierre Bourdieu, a French sociologist. Bourdieu wrote a book called *Outline of A Theory of Practice*, which seeks to define the prerequisites for a true scientific discourse about human behaviour. In this research Bourdieu states that "the problem with relations between culture and language, no anthropologist has tried to bring out all the implications of homology except Leslie White." Culture and conduct is comparable as is speech is to language. If we accept the hypotheses at the beginning of this paper to say that symbols and patterns are similar in faculties as words in language, then hopefully this argument can attempt to define the homology of language and culture.

Symbolic forms, in this case the HOUSE, is the conversion of economics into symbolic capital. "To these forms of legitimate accumulation, through which the dominant groups or classes secure a capital of "credit" which seems to owe nothing to the logic of exploitation, must be added another form of accumulation of symbolic capital, the collection of luxury goods attesting the taste and distinction of their owner" (Bourdieu, 1977). Wealth, he states, is the ultimate basis of power, and is only in the form of symbolic capital. We can then agree that the symbol of HOUSE is a socially recognizable commodity that is chosen and constructed by the owner's distinction and a testament to his appeared wealth without logic of exploitation.

Bourdieu also explains that the house, an *opus operatum*, lends itself to decipher the "book" from which children learn their vision of the world, as read by the body, in and through the movements which make space within which they are enacted as much as they are made by it. Therefor, all actions performed in this space are immediately qualified symbolically, according to Bourdieu, and function to construct the fundamental schemes. "The construction of the world of objects is clearly not the sovereign operation of consciousness...the mental structures which constructed the world of objects are constructed in the practice of a world of objects constructed according to the same structures" (Bourdieu, 1977). These schemes of thought and expression acquired are the basis for the intentionless invention of regulated improvisation, or *habitus*. The habitus is in practice that part of history that we have learned and forgotten but remains through the unconscious; "it is yesterday's man who inevitably predominates in us...yet we do not sense this man". (Bourdieu, 1977) and in this case, HOUSE.

Habitus, as applied to the idea of HOUSE, begins to explain repetition without thought. It is that part acquired, forgotten, and continually practiced. HOUSE, is that wood frame shelter, a symbolic capital representing the basic economic status of the common wealth of a population of people that is practiced without thought, learned as a child, and unconsciously chosen to replicate upon entering the economic system as an adult. Henry Glassie, in *Vernacular Architecture*, supports the idea that the economic system is represented by HOUSE—the commodity of modern America.

In the beginning there was the village....

Glassie, a folklorist, spent much of his time researching the evolution of the house beginning with the European culture in England before peoples arrived here in America. In the beginning the house in America was impermanent. At the end it was permanent (Glassie, 2000). Something changed, and it started with the villages of Jamestown and Plymouth. Euro-Americans rebelled against the typical idea of village and created a new form of architecture, separate and isolated.

They chose to build as they did in order to exploit the environment efficiently through agriculture, and in order to shape a new social order. To understand these social practices, one has to consider evolutionary reasoning. The box, HOUSE, evolved because a nest could be built quicker, demanding fewer people to build it, with less skilled labor, that would allow people to bear children sooner and more often.

Trends of the same were happening everywhere in the world. Round corners were squared off, and people built "cleaner" houses. People

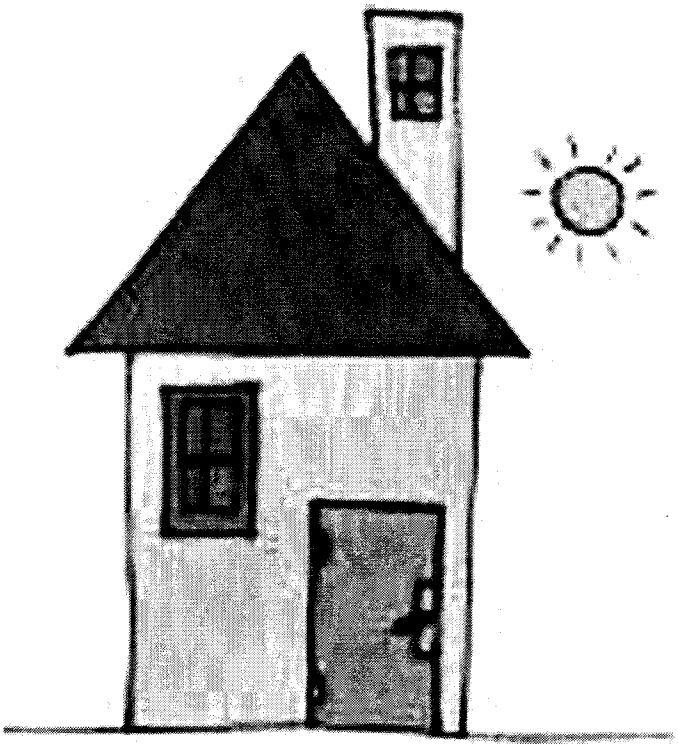


Fig. 4. Symbol of HOUSE

moving to cities left old villages vacant, and the new wealth brought about bigger houses symbolizing their economic success, protected their belongings, and gave them as they said more privacy (Glassie, 2000)

The HOUSE, as commodity

The modern era, as industrial capitalism expanded saw people slowly coming into conformity. They worked for wages, went shopping, and filled their houses with stuff. Commodities aren't anything new, and archaeology teaches that people have always consumed commodities. The difference is that at one time the commodities made ornaments of peripheral importance in houses that people built, but as industrialization continued, houses themselves became commodities, and people were assigned the difficult task of shaping their personalities out of things made by other people. "In these late days houses are consumed by many and designed by few" (Glassie, 2000). Even the architect is less one who transforms nature than one who designs assemblies of prefabricated components.

These prefabricated components define material culture, that thing of human work made permanent in buildings, books, clothing and tools. Since architecture is not a system unto itself, the architectural change provides the clearest evidence of a cultural change that happened at different times in different places. That cultural change was based on the needs of the capitalist (Glassie, 2000). But the big pattern was clear from the beginning, and it endures in subdivisions called estates and ranches, where houses stand in isolation, each on its own grassy plot. House lay next to house, next to house, that look identical to each other. Glassie states that the American landscape is evidence that people chose to exchange the confidence of communal life for the excitement of the pursuit of wealth. In daily experience, it might have been only a gentle shift in common conduct as people worked and lived amongst their neighbors. But in history it was a great watershed.

The Age of Consumerism

In the age of consumerism we are also faced with a new paradigm concerned with the environment. In early American history, there wasn't any concern with the consumption of resources for the construction of houses. Expansion exploded and now we are faced with extinction of species, loss of habitat and timber resources, pollution of waters and air, and a population demand consuming exorbitant amounts of materials.

Current habits and behaviors of building the HOUSE have surpassed double in size from 50 years ago in America. We are building bigger, less durable, more expensive houses without true real costs for the products that we build them with. We do not optimize the natural environment for solar, wind or other natural resources. The houses are isolated without a framework of community and are constructed on linear pathways optimizing for the automobile instead of the people. These choices are all secondary values that seem automatic.

A cultural choice may be automatic, like Bourdieu's habitus, or it

may be a distinct value choice, but the primary objective of building a house is biological. We as a human species require a shelter in order to keep us warm and to propagate our species. We have a fundamental understanding of human comfort that is not conscious thought, but is part of the fundamental schema, our blueprint that operates under our cultural choices. So why then do we make cultural choices in opposition of the best interest of the species? We see similar things happening with grains and food production. We have propagated certain species of food that brings no nutritional value. It is a global phenomenon of planet Earth's cultures.

Housing in America has adopted a style of architecture that is neither built by architects, nor designed by them that is taking over the landscape. Expansion is rapid and seems out of control. The HOUSE does not bring human comfort without technology. It does not utilize the natural environment and requires heavy consumption of non-renewable resources to keep it operating. The wood frame box is not safe in fires, not sturdy in powerful windstorms, or earthquakes. But yet more than 90% of our houses built in the United States are of wood frame construction. Totaling 1.5 million additional houses a year, this approximates to over 2,000 square miles of timber forest consumed annually. With the advance in technology, and an increase in efficiency, we as a species have allowed expansion of our population. With this expansion, an innate biological process to procreate and expand explosively, we demand more resources. The demand in resources eventually will supercede the carrying capacity of the population and the tipping point will be reached.

Questions for the future

Have we, or are we reaching our tipping point? That point where a population's ecological footprint will be greater than its resources? Consider these facts: *population is increasing, 20% of the world's population consumes 3/4's of the world's resources, and 40% of the total global resources are used for building materials* (Wackernagel, 1996). The United States is the number one consumer of timber and it is building increasingly larger houses that are demanding more resources. And these western ideas are spreading across the globe. But you ask are these ideas of consumption, exploitation, greed, and population explosion new concepts? The answer is No. When you look back into the archaeological record and the history of human ecology, we see patterns of exploitation of natural resources with some ending in failure of the civilization. It is still unclear whether human depletion of resources end with civilization failure, or whether the culture fails due to natural climate changes that deplete the resources. But what is obvious is that this rapid change is destructive and non-returnable.

Now back to the beginning.....

Going back to the first question of this paper: Why do humans repeat the patterns of building the wood-frame box, HOUSE? In America alone, the same patterns have been repeated for over 100 years. We know that humans' biological preservation is like any other species and it is not uniquely human to build a habitat to survive. But what is uniquely human is the rapid rate in which we are able to destroy our environment. We are even so efficient in destroying our resource bases, that we have caused extinction of almost all large animals, including ourselves in certain places like Chaco Canyon and Easter Island. The rate at which we are exterminating our species and damaging our environment is accelerating at a pace that cannot be sustained.

If we try to understand why we are holding onto patterns of building construction that are not sustainable, then we need to understand why. Accepting the fact that building shelters is an innate faculty for humans, and people are driven to create shelters for their existence, then building houses will never cease. And as we have learned from Bourdieu's idea of "habitus:" It is efficiency that human nature strives for. If we build houses efficiently in the current paradigm of economics, then there is no desire to change those habits until that paradigm changes. This habitus becomes common and through this commonality social acceptance happens. And through acceptance, technology as we know it, strives to make the box even more efficient without considering the idea of the box at all.

Considering the past 100 years, before the industrial revolution, we saw more non-pedigreed architecture as Rudofsky defines it. Simple and efficient, but mostly it worked with its environment,

built of local materials, designed to bring the most to human comfort through the natural environment. If we look at the designs of nature, we see patterns like beaver dams, beehives, and bowerbird huts, but what we don't see is a square box. Where then will technology take us with the efficiency of the box? Consider the fact of losing the ability to heat or cool that box. Can the HOUSE provide human comfort as to keep the inhabitants alive? Suppose if the wood-frame box would appear on the horizon today instead of 100 years ago. Building codes would never pass such an idea, to build a house of sticks, a fire hazard that isn't long lived by most standards. It rots, burns, decays and promotes the destruction of forests around the globe. More importantly without technology, most would become death traps to their inhabitants.

Looking into the future of my son's generation, one cannot guess where the next 100 years of technology will go. But if we continue the patterns and behaviors at the rapid pace we are at now, the entire landscape will be constructed of boxes that depend on technology to keep its inhabitants, the humans, from extinction.

Notes

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