

An aerial photograph of a waterfront park. In the foreground, a large crowd of people is gathered on a grassy area. A prominent red, abstract sculpture stands in the middle of the park. The park is bordered by a dark, modern-looking wall or structure. In the background, there is a large body of water, likely a harbor or bay, with several cranes and industrial structures visible on the distant shore under a blue sky with scattered clouds.

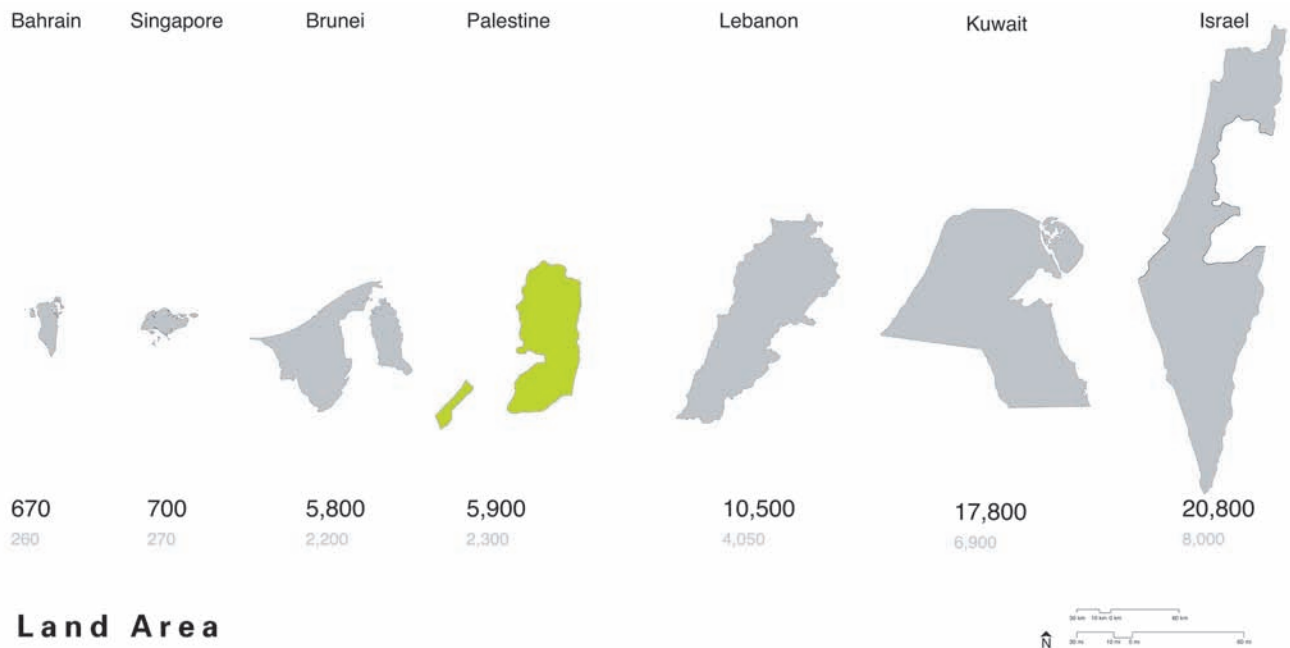
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# The Arc: A Formal Structure for a Palestinian State

Suisman Urban Design, with RAND Corporation



## Land Area

Given peace with Israel, can a Palestinian state be viable and sustainable? What kind of infrastructure will it need? How can it accommodate waves of returning refugees and its own internally expanding population? Can such a state overcome bifurcation between two territories, the West Bank and Gaza? Can its new urban areas be integrated into the natural ecology of the Middle East? These are just some of the questions addressed by the Arc, a national plan for a future Palestinian state.

The work of Suisman Urban Design of Santa Monica, California, for the RAND (Research And Development) Corporation, the Arc was hailed by the jury as a bold, visionary exercise; unlike many other submissions to the competition, it used the discipline of planning to “move the bar.” Through research and design, the RAND-Suisman team mapped obstacles to a stable and prosperous Palestinian state, such as the lack of transportation and utility infrastructure, the prospect of a sudden increase in population, the geographic disconnectedness of Gaza from the West Bank, and the absence of sustainable new urban forms within a tightly constrained territory.

**Above:** Comparison of Palestine to other small nations in terms of land area.

**Opposite left:** Comparison in terms of population (top); in terms of population density (bottom).

**Opposite right:** National boundaries based on the 1967 Green Line bifurcate the country between Gaza and the West Bank.

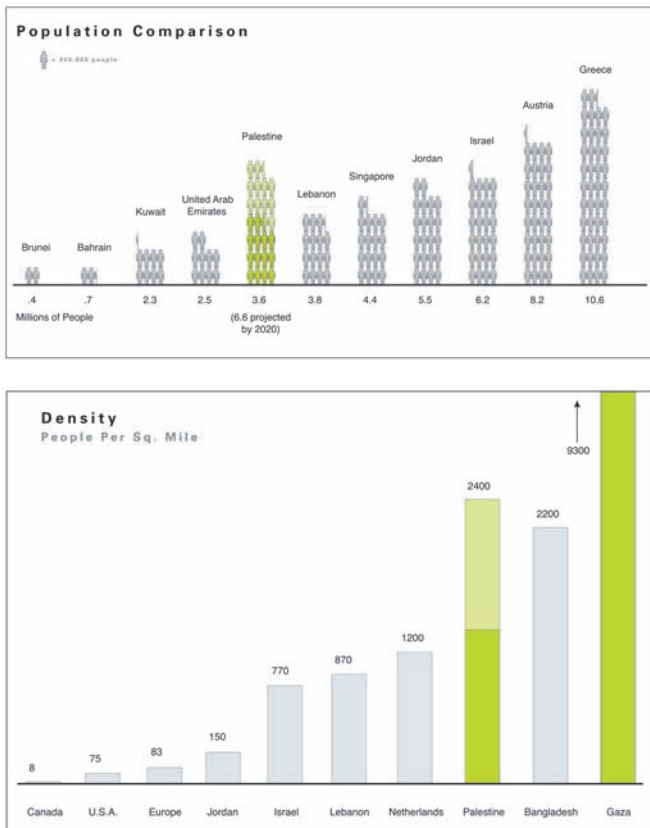
Since its release, in 2005, the plan has received overwhelming praise, in positive reviews from more than two hundred media outlets worldwide. But it was the vision that struck the jury most. Its strength was precisely its ability to regard Palestine not as a political problem, but as a planning and design problem. Even if resolution of the Arab-Israeli conflict may be years away, it places the needs of a future Palestine at the center of discussion, and by addressing them with objective professionalism, the Arc has created a tangible object of hope.

## Rethinking the Problems of Palestine

The story of the Arc began in 2000, when RAND received a private gift of \$1 million to study the viability of a Palestinian state the “day after” independence. The donor, David Richards, had an interest in American foreign policy and in using the provision of health services as a tool to promote peace, said Ross Anthony, leader of the RAND International Health unit in an interview.

“Richards was shocked to find that while much effort was being given to establishing peace, no one had ever asked what could make an independent Palestinian state successful once peace was reached. His position was that if you don’t have a plan you are doomed to failure—like what happened in Iraq.”

The year 2000 was an inauspicious one in which to begin such work. With the outbreak of the second Pales-



tinian Intifada, a Palestinian state seemed far away.

“It was a bad time for optimists,” said Anthony. “But RAND’s agenda focuses on the conduct of foreign policy via issues of health, education, and justice.” His research team began work in RAND’s traditional areas: justice, security, education, health, demographics, and resources. Because this work is apolitical and fact-oriented, he was not discouraged by the deteriorating situation.

When RAND’s initial report on Palestine was published, in 2005, it concluded that a state was indeed viable. However, it would face serious – and concrete – problems. One was the prospect of a massive increase of population, estimated at an additional three million people by 2020.

Coincidentally, RAND had been approached by a second donor, who proposed a study of how Palestine might withstand a massive return of refugees. The donor, Guilford Glazer, was concerned with how it might be possible to produce low-cost housing quickly, and he speculated about the need for a new city to support three million people.

The donor’s brief assumed population growth would result from large numbers of returnees. But RAND’s own

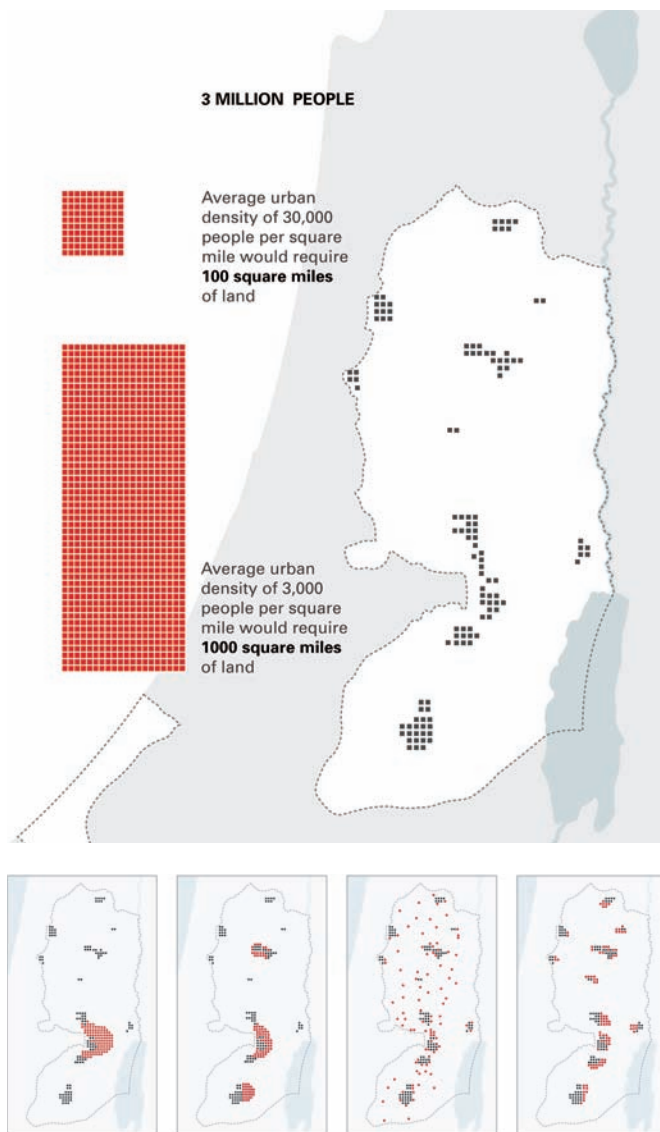
research predicted the returnee population would not likely exceed 600,000. On the other hand, it estimated that natural population growth, based on current birth rates, would add nearly two and a half million people to Palestine by 2020.

Once population growth had been identified as a key challenge for a future state, it became clear that a study of housing and urban development—along with corresponding issues of land availability, geographic terrain, and building traditions—was needed.

“RAND’s expertise is in infrastructure, security, demographics, health,” said Anthony. “While we have over 1,500 employees, we didn’t have any planners.” That was when Suisman’s firm became involved.

The firm was first approached on a short-term consultancy. As Suisman explains: “The connection between us and RAND was made through a friend, Ann Kerr, who has a personal connection to the Middle East. Her husband was Malcolm Kerr, former head of the American University in Beirut, who was assassinated by Hezbollah.”

“In the selection process we were asked to give RAND



limited help. We had a six-week window to come up with a preliminary presentation on the housing question so that Guilford Glazer would agree to give the money. Our contract was to help by looking at housing types and density.”

What started as a density study developed into a broader set of planning recommendations for growth, culminating in a conceptual vision for an entire state.

### A System of Connectivity

When the firm began work, neither Suisman nor anyone else on the planning team had specialized knowledge of the area—or had even visited it.

“We had no familiarity with the region and its politics. And coming from California, we were reluctant to presume a vision,” Suisman explained.

“Before embarking on the project I was sure there would be half a dozen visions for a state out there—already proposed—that we could learn from. I was surprised to discover that Palestine never had a national plan—made by Palestinians, Israelis, or any international or nonprofit organization.”

The team also started with lots of numbers, but little geographic data. This meant its members’ educating themselves on the region’s complex terrain, political boundaries, and natural conditions.

Another early task was to look objectively at existing cities. It involved researching the topography, patterns of population dispersal, how these related to the adjacency of Israel and Jordan, and at characteristic densities and housing typologies. A further important step was to research urban densities in arid regions, from Phoenix to Cairo.

“The common belief is that all Palestinians want a house with a garden,” said Suisman. “In fact, the majority live in multistory housing.”

This consideration led to establishing an acceptable

### Sample Juror Comments—The Arc

**Fritz Steiner:** [In planning] my favorites are the three that got the top votes. The Arc is just amazing stuff.

**Dennis Frenchman:** In the genre of finding and making new form it’s very hard to compete with this. Because what’s been done here is to discover a form in a whole territory—a nation, I’d say—which probably wasn’t understood before.

**Susan Szenasy:** A very contested place.

**Dennis Frenchman:** To give that degree of clarity is

really a major contribution.

**Fritz Steiner:** In a way it is a little bit like *America Town* in the sense of just an architect, a designer, a landscape designer taking on a contemporary issue, and really taking off. But she or he is really doing it more visually, graphically, than literarily.

**Dennis Frenchman:** Yes, you’re right.

**Fritz Steiner:** What you feel about both of them is urgency. These are relevant.

**Jane Weinzapfel:** You can carry these [referring to images from The Arc plan] in your mind and see many layers of change.

**Dennis Frenchman:** And they tie in all kinds of development—water, transportation, energy, telecommunications, open space—all into a simple framework, so it is all adding up to something, where when you go there you don’t feel any organization exists. So I think it is very, very powerful.

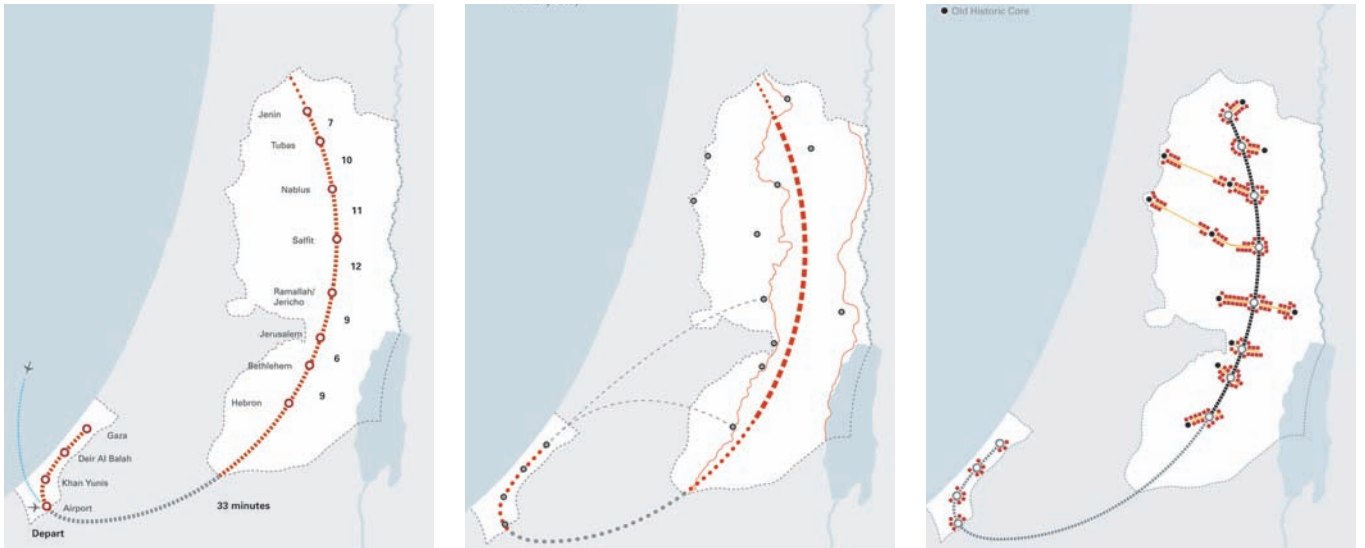


figure of thirty thousand people per square mile of built area. This number was then applied to an expected population increase of three million by 2020. This calculation produced a “demand” for one hundred square miles of new urban territory.

“There is enough available land for that,” Suisman said. “And this was encouraging. But if there is sprawl, the West Bank will be overrun. We were worried about the precedent of suburban growth in Ramalla after the Oslo accords. This was a warning sign. We were concerned about auto ownership and pressure on the complicated road system.”

As Suisman’s team became more familiar with the terrain and the planning problems, it also began to understand how the 1967 “green line” border between Israel and the West Bank (assumed to be the new nation’s border) forces north-south connections rather than east-west ones. Topo-

graphical investigations also led the team to conclude that planning for growth would be more likely to succeed if it were based on multiple centers rather than Glazer’s initial query about a new megacity. The defining idea, however,

**Opposite top:** Urban settlement density will be key to accommodating a projected increase of three million new residents.

**Opposite below:** A variety of distribution patterns were studied.

**Above left:** Approximate travel time between stops on a new high-speed interurban rail system.

**Above center:** The arc corridor and the location of existing cities in Palestine. In addition to the main infrastructure connection between Gaza and the West Bank the plan imagines road connections between Gaza and Hebron and Ramalla.

**Above right:** Patterns of linear urban growth connecting older historic cores (dark dots) to new urbanized areas (white dots).

**Jane Weinzapfel:** This has been awarded a lot.

**Fritz Steiner:** I think for good reason. I have read about it before, but never looked at it.

**Dennis Frenchman:** I have heard about it before, but it’s just very good.

**Fritz Steiner:** If you look at some of the other planning projects, the approach gets so dense, and the message is so obscure. But this one, it is boom, boom, boom. This is what you want to do, and you get it. With *The Arc*, I think you have nation-building

through design and culture. Wow!

**Susan Szenasy:** I think it is an amazingly thoughtful project.

**Jane Weinzapfel:** It’s beautiful....

**Susan Szenasy:** It’s every level. It figures out how to create connections and massing.

**Dennis Frenchman:** It shows the importance of place. Even in making a whole society. How can you deny that? The idea of the movement toward place....

**Jane Weinzapfel:** An idea of place. Victimhood,

contestation...all the other ideas that are attached to Palestine. The idea of a place for the future is such a gift.

**Fritz Steiner:** And so positive. And it hits everything. It pulls it all together in a stunning sort of way. And it is also convincing that it fits the ecology of that region.

**Jane Weinzapfel:** Infrastructure in which to grow. And then you can begin to develop in a reasonable way.

**Dennis Frenchman:** And the symbolism of a crescent. It’s all there.

became an infrastructural corridor that would follow the watershed boundary along the major dividing ridge in the West Bank, and link by means of a long curve through the Israeli desert to existing population centers in Gaza, where the state's sea- and airports would be built.

To downplay the role of private automobiles, the principal feature of the corridor would be a high-speed train. But the corridor would also include a national infrastructure for water, electricity, communications, and other needs. This scheme came to be termed "the Arc" for its distinct shape.

As ideas about the infrastructural spine were refined, they began to suggest the elements of a national housing and urban development plan. One important decision was to plan for new rail hubs outside existing cities, establishing a series of bi-polar urban areas (where one pole would be the existing city and the other the rail station). Laying the rapid-rail system east of existing, congested cities in the West Bank would also draw growth toward the new national infrastructure, allowing older cities to expand gracefully and retain their historic character.

The difficulty of inserting rail lines into dense, existing cities suggested the use of rapid bus connections along new transit boulevards in the urban areas themselves. "The boulevards enabled us to take the one-hundred-mile square we needed for new housing and arrange it along those lines. This is our most important drawing," he said. "It is about tying people to a national system of housing and transportation."

As Suisman notes, such a system is all about connectivity and movement, in stark contrast to years of occupation, internal conflict, segregation and isolation.

### A Vision for Palestine

As its work progressed, the Suisman team came to view the ongoing strife and stalled peace talks as an opportunity to plan ahead and lay out infrastructure for transportation and housing *before* the growth expected following a peace accord.

But because of that political uncertainty, the Arc is not an inflexible plan. It is rather a scheme to stimulate creative thinking and form a "mental map" of how a Palestinian state might one day work. This means it offers both carefully detailed solutions, like the linear pattern of growth and densification, and deliberately vague approaches to issues like

**Opposite:** Projected patterns of growth in the Nablus area of the West Bank, showing how the old town, at the top, would extend to meet and link to a new national infrastructure.

borders and overlapping sovereignty, where the infrastructure corridor cuts across Israeli territory. It also completely ignores such painful issues as the Israeli security wall.

"The Arc is a conceptual plan," said Suisman. "The form, far more than a formal structure, is the idea of spine and branches. We did want a strong shape: our model was the finger plan [that has served as a mental for the development] of Copenhagen. We wanted something clear and strong that could be sustained by several regimes in Palestine, that could last for decades." But, while simplicity of shape is important, the concept of linkage between settlements and between the West Bank and Gaza is the most critical aspect, Suisman said. The shape can be changed or modified.

"The plan we proposed," said Suisman, "is interested only in what we see as good planning. In the beginning there was suspicion about our agenda. Some Palestinians were interested in forming civilian settlements along the borders as way to secure territory. We told them that if they wanted to do this, it's possible. But when the population is housed for a military and strategic purpose, it does not reflect good planning. They ended up accepting our position."<sup>1</sup>

But Suisman's team was also looking for something more than memorable simplicity. "We were looking for something to *inspire* people, not only a technical solution." This element has since proved important in presentations to groups of Palestinian Americans and others who may initially be skeptical of the fact that Suisman himself is Jewish and American.

"What inspires people when I give the presentation are images that tell a story and make people believe a state is possible. The shape makes it easy to grasp and remember. Palestine can succeed, and it could look like this. We were the first ones to tell this story."

### Ideas Have Power

The RAND-Suisman team has now presented the Arc to Palestinian officials at several levels—including the prime minister—and to Israeli officials. "The Israeli response has ranged from skeptical to cynical, but was not hostile. The Palestinians are keenly interested," said Suisman.

"What holds this project from realization is that the Palestinian government is fractured. They were unable to take a strong stand and say 'this is our national vision.' If they did, the Israelis would at least buy into the idea, and the international community—the political and donor community—would back it up."

"We didn't expect to get the reception we did," Suisman said. "RAND generally releases professional reports and goes away. This report is already three years old and is still



going. The only lesson I can draw is that ‘ideas have power.’

“As a planner, I have the ability to visualize what other professionals, like economists, cannot. For most people it comes down to issues of municipal quality of life, which is what we do. It’s dangerous when architects and planners engage in ideology. That is part of why the Arc is successful.”

“This work is done and in the public domain,” said Suisman. “It can be accessed for free on RAND’s website.<sup>2</sup> We would love for the Palestinians to make it their own.”

— *Yael Allweil*

#### Notes

1. The case of Israel itself illustrates why such a policy may be useful politically, but bad as a planning strategy. A major goal of the 1952 master plan for Israel, by the

architect Arie Sharon, was to establish Israel’s claim to territory as a homeland for Jews. Thus, it called explicitly for new settlements for immigrants in unsettled areas like the Negev and along the country’s borders.

2. <http://www.rand.org/palestine/>

All illustrations courtesy of Suisman Urban Design and the RAND Corporation.