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KHAṬṬA AND THE TERRITORIAL STRUCTURE OF EARLY MUSLIM TOWNS

The term *khaṭṭa*, literally, "marked out," was commonly used by Arab historians in the early Muslim period in descriptions of the laying out of towns. Its meaning in current scholarship has, however, often been misunderstood, and that in turn has led to misconceptions about how towns were planned. Consequently clarifying its meaning will clarify how those early towns were structured.

Islamic towns varied in their formation all the way from decentralized development through small-scale building by the inhabitants to very organized formations planned by a central authority. G. E. von Grunebaum has suggested that they should consequently be divided into two classes, which he labeled "spontaneous" and "created." Examples of spontaneous towns, i.e., towns developed independent of any government planning, are Karbala and Mashhad. The "created" type are subdivided into several groups. First of all are the princely towns that were founded when a ruler decided to move his residence from an old capital to a nearby new one. Examples are al-Muʿtasim's founding of Samarra about seventy miles north of Baghdad, and the Aghlabids' building of Raqqada six miles from Qairawan. Second are the fortress towns or ribats such as Rabat in Morocco. Third are the capitals or other politically inspired towns such as Baghdad, the capital of the Abbasids, and Fez, whose founding marked the rise of the Idrisids. Finally, there are the military garrison towns (*amṣār*) such as Kufa and Basra in Iraq, Fustat in Egypt, and Qairawan in Tunisia. The discussion here will center on this last type.[1]

Accounts describing town foundations have also often been misconstrued because of the preconceptions of some scholars. Creswell, for example, understood the verb *ikhtaṭṭa* to mean simply "marked out," and concluded from that that Basra, Kufa, and Fustat must have been "chaotic labyrinths of lanes and blind alleys, of tents and huts alternating with waste ground," and that "at Kufa the inhabitants of one quarter required

a guide when they entered another."[2] These remarks reflect the scholars' tendency to judge Muslim towns in terms of Roman or Hellenistic ones which they regard as highly ordered. In exploring the structure of Muslim towns, for example, von Grunebaum notes their lack of gymnasiums and theaters.[3] When referring to early Muslim towns, Lammens states that "the variety of terms employed by Arabic historians — ḥira, fustāt, Kairouan — suggest the picturesque disorder of a growing city."[4] Finally, J. Lassner, when he compares garrison towns with Baghdad, says that "the early pattern of growth which was characteristic of such military colonies as al-Basra and al-Kufa was rapid and without real awareness of the formal elements of city planning."[5]

Scholars have also agreed that all garrison towns followed the same process in their creation. A. R. Guest, for example, says of the original layout of Basra, Kufa, and Fustat that "with some differences, the three towns were much alike in their general character; and what is wanting in the description of one may be filled up from the accounts of the others with some confidence."[6] The question then becomes, if they were not planned, why do they so resemble each other? The answer is that the resemblance comes from the application in all of them of the same set of specific principles.

The mechanisms for establishing ownership in the early Muslim period were first by occupying it, which is the ultimate source of any land ownership; second, by selling or giving it away; and third by inheritance.[7] Simple occupation was common, since in the early Islamic period in these expanding towns vacant, unclaimed land was plentiful. As a result, claiming land in this fashion received extensive discussion by Muslim jurists, who recognized unclaimed and unused land as "dead" (*mawāt*) land,[8] and followed certain principles in dealing with it. Land is considered dead (i.e., fallow or unoccupied) if there is no trace of building or cultivation on it or if it is not being used by the locality for common pasture, burial ground, or as a source of wood

or of fodder for cattle.[9] When it abuts towns or cities, all but a few jurists of the Hanafi rite also consider it dead.[10]

According to custom, dead lands can be revived and the revivers become its owners. *Iḥyāʾ*, which literally means "life giving," signifies in the context of land ownership the rights to the land that accrue to the reviver. There is ample evidence in the Prophet's traditions to support the principle that ownership of dead land can be assumed by cultivating it or building on it.[11] The Prophet said, "The people are God's people, the land is God's land; he who revives a piece of dead land will own it, and the unjust root has no right."[12] The acts of rulers also support it. A man who had revived dead land came to ʿAli, the fourth caliph, and said, "I came across a land that was ruined or its inhabitants had left it, and I dug irrigation ditches and cultivated it." ʿAli responded, "Eat pleasurably; you are righteous not impious, a reviver not a destroyer." Jurists also supported the right to revive dead land. Ibn Qudama relates that "reviving dead lands is the custom in all regions, even if there are differences among jurists regarding its regulation."[13]

Bestowing land by allotment (*iqṭāʿ*) is similar to claiming it by revival, but it refers to land bestowed by the ruler to individuals. These allotments can carry either outright ownership or simply the right to use the land.[14] In either case, the land can be "dead" or it can be land owned by the state. *Iqṭāʿ* was most commonly used in new towns. In *Futūḥ al-Buldān*, al-Baladhuri refers to it more than ninety times. In one of those citations he reports that when Caliph Jaʿfar resided in Haruni in 847, he "built many buildings and allotted land (*iqṭāʿ*) to people in the outskirts of Surrahmanraʾa.... Then he established the town that he called al-Mutwakkiliyya."[15]

Demarcation (*iḥtijār*) was an aspect of both revival and allotment. It referred to the marking out of a piece of land — whether claimed by the individuals or allotted as a land grant by the ruler — with stones or the like. When done in this way, the right to the land was limited to three years[16] and did not involve ownership.

Arabic terms usually had many meanings and connotations; in addition, from a single word, many other verbs and nouns were derived with meanings totally different from the original root. All those meanings were readily understood by everyone; as a result, the texts do not bother to define their terms. Today, however, they have to be determined from the context in which they are found. In some cases, in addition, those

meanings changed over time. If scholars depend solely on the original root to determine the meaning of the derived word confusion can easily result.

Such a confusion has surrounded the word *khaṭṭ*. Literally it means "line," but the sources reveal other meanings as well. The historian Ibn Manzur (d. 1312) defines the noun *al-khaṭṭu* as the "rectangular shape of a thing," for example, a rectangular plot of land. He says that it also means a road. *Takhṭīṭ* is the act of laying out straight lines (*tasṭīr*). He adds that people usually say a person "is marking" (*yakhuṭṭu*, the present continuous tense) on the land, if he is thinking about a decision. As a noun, *al-khiṭṭu* or *al-khiṭṭatu* means the settling of land that has not been settled before.[17] The confusion is compounded because there is no exact equivalent of the verb *khaṭṭa* in English.

Ibn Manzur goes on to say that:

> *khaṭṭaha li-nafsihi khaṭṭan* ("he marked it out for himself") or *ikhtaṭṭaha* ("he already marked it out for himself") means that [the land] was marked by a *khaṭṭ* [i.e., not necessarily by lines] so it would be known that he claimed it (*aḥtāzaha*) to build a dwelling on. From this the *khiṭaṭ* [plural of *khiṭṭa*] of Kufa and Basra [can be understood]. And [if it said that a person] *akhtaṭṭa* [simple past] a *khiṭṭa* [noun], then this means that he has demarcated a place and outlined (*khaṭṭa*) it with a wall. Its plural is *al-khiṭaṭu*. And everything you possess [*ḥazartahu*; prohibited others from possessing[18]] means that you have marked it out (*khataṭṭa*, past perfect). *Khiṭṭatu* means the land. And a man [usually] marks out a house (*wa al-dāru yakhtaṭṭuha al-rajulu*) on land that is not owned in order to prevent others [*yataḥajjaruhā*, from building, for example] and builds on it, if the ruler allowed a group of Muslims to mark out dwellings (*yakhataṭṭu al-dūr*) on a specific site to make their residence (*wa yattakhidhu masākina lahum*), as they did in Kufa, Basra, and Baghdad.[19]

The explanations in this passage indicate that two basic terms were derived from the word *khaṭ*, one is the verb *khaṭṭa* and its derivatives of past and present, etc., such as *yakhuṭṭu*, *khaṭṭahu*, *ikhtaṭṭahā*. The other is the noun *khiṭṭa* and its derivatives such as *al-khiṭṭu*, *al-khiṭṭatu*, etc., on which the action is taking place. The verb can refer to straight lines, rectangular things, a well-thought-out action, and outlining or marking with lines or walls. The word *ḥazara* ("preventing others") was used by Ibn Manzur to explain *khaṭṭa* which also adds an element of control. The noun *ḥazīra* refers to spaces that are controlled.[20] Ibn Manzur's use of the word *ḥazara* suggests control of the acting party. The ruler's permission is also needed. The verb *khaṭṭa* therefore

denotes the act by a resident of claiming and controlling land with the ruler's permission.

If, as Creswell suggested, *khatta* meant simply delineating, then it would be difficult to find a distinction between *khatta* and the verb *ahtajara*. If the ruler's permission is needed for *ikhtitāt* and the acting party has to make *khitta* on a specific site, then how does *khitta* differ from the bestowing of allotments by the ruler? Determining the distinction between *ihtijār* (demarcation), *ihyā'* (reviving dead land), *iqtāʿ* (bestowing allotments), and *ikhtitāt* will provide the key for understanding how early Muslim towns were planned.

How does *khatta* relate to building? Al-Jawhari defines the noun *khitta* as "land a man has marked out by making lines that indicate the selection by the demarcator of the demarcated site for building and possession."[21] This definition suggests that the act of building immediately follows *khatta*. All other cases also suggest that one follows the other. If they did not the term *ihtijār* would have been used. With a few exceptions, the instances in al-Yaʿqubi, al-Baladhuri, al-Samhudi, Abu Yusuf, al-Tabari, and al-Maqrizi all indicate that building (*bināʾ*) follows *khatta*.[22] One of the exceptions is in al-Baladhuri, when he reports that Ibn al-Adraʿ marked out (*ikhtatta*) a mosque, but did not build it, and he prayed in the place although it was not built; then ʿUtba built it.[23] From all this, we can conclude that *khatta* means the act of claiming a plot of land on which one intends to build by marking it out, with the ruler's permission, and that it almost always preceded the actual building.

Guest says that "*khittah* seems to convey the idea of marking out with a line; its general meaning is ground occupied for the first time, a 'pitch' or holding; hence it comes to mean a site of any sort."[24] This definition clearly mixes the verb *khatta* which denotes action with the noun *khitta* which is the site. Al-Baladhuri uses the verb *khatta* in describing the foundation of a mosque in Basra, "He commanded the marking-out (*ikhtitāt*) of the mosque by his hand."[25] The structure of the sentence suggests that *khatta* carries the implication that the ground is marked by the acting party and not by a ruler; if it had been marked out by the ruler, then it would have been an allotment (*iqtāʿ*). But this definition does not rule out the possibility that yet another party was involved. Yaqut relates that when the Prophet came to Medina, he "allotted the people the houses (*dūr*) and dwellings (*ribāʿ*);[26] and he marked them out (*khatta*) for the Bani Zahra [i.e., more than one family]; and he allotted [one to] al-Zubayr b. al-ʿAwwam."[27]

This passage suggests that *khatta* as a verb denoted both bestowing and marking the site, and that it could be done by a third party. In this case, the Prophet both bestowed and marked out the land for the Bani Zahra to define its boundaries. It is also reported that the Prophet marked out (*khatta*) the house of Uthman, the third caliph.[28] But aside from these and a few similar instances,[29] in all the cases I turned up in the literature the actual marking out was done by the prospective inhabitant of the *khitta*.[30] In any case, only the structure of the sentence itself can tell us who the acting party is.

Yaqut's statement does, however, suggest a difference between *khatta* and *aqtaʿa* (the act of bestowing the allotment). *Aqtaʿa* involves bestowing a specific site, whose boundaries are established by the ruler, to a party (whether one person or a group such as a family or tribe), which must revive it within a limited time. It cannot be owned unless it is revived. *Khatta* is the act of marking out a site within a specific area with the ruler's permission by the party involved. The party, not the ruler, decides on its specific boundaries. In *aqtaʿa*, revival need not take place immediately; *khatta* indicates that building will immediately follow.

The difference in usage of these two verbs by historians is clear when they speak of new towns. *Khatta* is used in descriptions of Qairawan, Kufa, Basra, and Fustat; *aqtaʿa* is used in describing a more organized system such as that used in Baghdad.[31] The difference between them lies in who makes the decision. If the party decides for itself, then the process is *khatta*; if the decision is made by someone else, especially a central authority, then it is *aqtaʿa*. This is very clear in al-Yaʿqubi's description of al-Qatul's foundation by al-Muʿtasim in 835, in which he states that al-Muʿtasim "marked out (*akhtatta*) the location of the town that he built; and he bestowed (*aqtaʿa*) allotments on the people, and he started to build, then [or until] the people built palaces and houses; [consequently] the markets were established; then he [al-Muʿtasim] traveled from Qatul to Surramanraʾa."[32] Ibn Durayd explains that *khittun* is the name of a place that is marked out by a person for himself (*yakhtattuhu li-nafsihi*).[33] Thus *khatta* is always undertaken by the party named in the sentence — the reverse of *aqtaʿa* — and always suggests that the acting party was in control.

Does *khitta* connote anything about the kind of building that will be constructed, or is its meaning restricted solely to the building's boundaries? References to it in the historians suggest the latter: it pertains strictly to the site and says nothing about what

is to be built on it. Al-Ya'qubi, for example, reports that during Abu al-'Abbas's reign (d. 754), Abu Ja'far marked out (akhtatta) al-Rafiqa on the banks of the Euphrates and Adham b. Mihriz designed it (wa handasaha lahu).[34] When khatta is used as a verb it tells us the size of the contracting party and the size of the site: if it is used in combination with the name of a person, we know it is referring to the building of a dwelling for an individual or family; if it is used in combination with the name of a tribe, we know that it is referring to a piece of land that is collectively owned by that tribe. In his study of Fustat, Guest concludes that "the areas occupied by individuals among the founders for their houses were known as their khittahs.... The term applies equally to collective holdings. Where the dwellings of bodies such as tribes or subtribes were grouped within a common boundary, the ground included was called the khittah (noun) of the group. It is to be noticed that a khittah of this kind might be a part of another, as, for instance, the khittah of a tribe might contain khittah of sections and these in turn khittah of families."[35]

Guest's conclusion is of great importance to our investigation. The verb khatta and the noun khitta cannot be clearly understood unless the party referred to is mentioned. In Arabic, the language often tells us whether the noun refers to a male (khittatuhu), a female (khittatuha), a clan, subtribe or tribe, or even a group of families or individuals with no blood ties (khittatuhum). The verb khatta must occur in conjunction with a person or group and also tells us something about them: khatta (past tense) tells us it is a male individual; khattat, a female, khattu or ikhtattu, a tribe. In short, who the party is can easily be inferred from the structure of the sentence. If it is a tribe, and the tribe collectively marks out and claims the khitta, that khitta can include other khitat (plural of khitta) for subtribes which in turn can contain khittas belonging to various families. Each khitta is claimed by whoever inhabits the site.

Can khatta refer to claiming without reference to marking or walling-in the site? It is reported that the Prophet David planned to build a house of God in Jerusalem. He marked out (khatta) his claim (khitta), "but the khitta's square corner (tarbi'atuha) was under the corner of a house that belonged to a man from Israel."[36] Using the verb khatta in reporting this incident implies that marking the ground was not essential, but in practice the exceptions were few. Normally khatta did refer to actually marking boundaries with lines or walls or by some other means, i.e., it involved both claiming and marking out a site.

In sum, khatta in the early Islamic period meant the act of claiming a property, often but not necessarily by the claimant's marking it out with lines or structures to establish its boundary after obtained the ruler's permission to do so. It represents the first step in the building process, but does not necessarily involve the internal organization of the property. Khatta always involves people, but the party involved can be either an individual or a family, tribe, or other group. Any khitta can include other smaller khittas within it; each of these is controlled by its inhabitant(s). The major difference between khatta and aqta'a is in the way the boundary is established. Khatta tells us that the party mentioned decided on the boundaries; aqta'a implies that an outside authority made that decision. This means that the only relation between the authority and the party involved in a khitta is the permission. Ihtijar refers to the demarcation of dead land; it does not involve a specific place or the ruler's permission. The dead land can be revived by parties other than the demarcator. Khitta involves the rights to a property that cannot be violated by others; it is entirely under the control of the inhabitants. An analogous expression in English might be to stake out a claim.

Kufa. Kufa was founded as a camp town in the fourth year of 'Umar b. al-Khattab's reign (634-44). Al-Baladhuri (d. 892) tells us that when the Muslims in al-Mada'in were plagued by mosquitoes, Sa'd Ibn Abi Waqqas wrote to 'Umar informing him of their plight.[37] According to al-Tabari (d. 923), in reply 'Umar ordered Sa'd to find a more habitable place to which the Muslims could migrate. Umar's only stipulation was that no sea should intervene between himself and the Muslims. Accordingly, Sa'd chose al-Anbar, but there they were plagued by flies, and he had to find yet another site. Sa'd sent Hudhayfa and Salman to search for it, and they settled on Kufa.[38] Al-Baladhuri recounts that Ibn Buqayla presented himself before Sa'd and said to him, "I can show you a site which is outside the waterless desert and higher than the marshes."[39] Saying this, he pointed to Kufa. Al-Tabari reports that Sa'd made Abu al-Hayyaj responsible for laying out the city. Following 'Umar's advice the main roads (al-manahij) were forty cubits wide, the next most important were thirty cubits, and those in between were twenty cubits; the lanes (aziqqah) were seven; and the land grants, except those in Bani Dabbah, sixty cubits. A group of men known for their wisdom and good judgment (ahl al-ra'y) were called together to

estimate the measurements; if they agreed on them (*ḥattā idhā aqamū ʿalā shayʾ*), Abu al-Hayyaj would make his decisions accordingly.[40]

The first element to be laid out and built was the mosque. When Saʿd arrived at the site he ordered a man to shoot an arrow toward Mecca (the qibla), another arrow toward the north, a third to the south, and a fourth to the east; he then marked the place where each arrow landed. Saʿd decided that the mosque and the governor's residence should be placed around the spot where the archer had stood. Al-Tabari says that the places where the arrows fell formed a square in the center of which the mosque was to be located. Saʿd then ordered all others who wished to build to do so outside that square. A ditch (*khandaq*) was dug around the square (*saḥn*) "so no one could encroach onto it with buildings." From the square to the north five roads (*manāhij*) were marked, to the qibla four, to the east and west three.[41]

Decisions regarding where to found the town and where to put the mosque, the governor's residence, the market, and the square had all been made by Saʿd with the advice of others. ʿUmar had only said that no sea should come between the town and his residence in Medina. Up to this point it appears that the inhabitants had no influence over these decisions. Whether the tribes have any influence over the layout of the town is another question. Before Islam tribes had been a recognized social unit, and that recognition continued after Islam. Each tribe had its *khiṭṭa*, or territory, within the town, but whether the tribes themselves decided on the location and boundaries of their *khiṭṭa*, whether they were assigned a location and then settled on the boundary with adjacent tribes, or whether they were assigned the territory and had no influence over its boundary, but were obliged to accept the layout established by a central authority, is unclear. To find the answer, we must first review what we know about the foundation of Basra and Fustat.

Basra. Early Muslim towns were first thought by Western scholars to be chaotic and then claimed by Muslim scholars to be planned and ordered. Unfortunately the Muslim scholars perceived a layout prescribed by the authority or its representative as the necessary prerequisite for order. Any environment developed by the people without any plan by the central authority was assumed to be disorderly, though that need not necessarily have been the case.[42] As a result, to prove that order existed, scholarly efforts were con-

centrated on collecting evidence that these towns were in fact centrally planned, and in the process misinterpreted their data. Al-Janabi, for example, establishes a hypothetical layout of Kufa in which he conceived the town to be orthogonal and well designed.[43]

Basra was founded in 638 by ʿUtba b. Ghazwan. Al-Baladhuri (d. 892) says that the "people established claims (or marked out, *ikhtaṭṭu*) and built [their] dwellings."[44] He does not refer to any authority. Al-Mawardi (d. 1058) adds that

> the companions [of the Prophet] had settled in Basra during ʿUmar's reign and made *khiṭṭas* for their inhabiting tribes (*qabāʾili ahlihā*); they established the width of its major streets which were its *mirbaḍ* [place where their horses were kept][45] at sixty cubits; they made the other streets twenty cubits, and they made the width of each lane (*zuqāq*) seven cubits. They also established in the center of each *khiṭṭa* a wide *raḥba* (forecourt) for their horses' stations and for their cemetery. Their dwellings abutted each other. They did not do this without an opinion on which they agreed (*wa-lam yafʿalu dhālika illā ʿan raʾyin attafaqū ʿalayhi*).[46]

The first sentence of this passage refers to "the companions" and not to the authority, and "companion" can mean any individual who talked with, or even just saw, the Prophet. Basra was founded just six years after the Prophet's death. The final sentence suggests that the inhabitants could influence both the layout of the *khiṭṭa* and other decisions, if they did not actually make them. The quotation from al-Mawardi is also reported by Abu Yaʿla al-Hanbali (d. 1066) of the same generation.[47] This may imply that both of them quoted an earlier reliable source. Thus the *khiṭaṭ* were most likely laid out by the inhabitants and not, as others have claimed, by the authorities.[48] If any *khiṭṭa* was marked out by someone other than the inhabitants it would have been clear from the text.

Al-Baladhuri, for example, says of a group of people (possibly Persians) known as the Asawira, who had accepted Islam and moved to Basra after its foundation, that "their *khiṭṭa* were marked out [*khuṭṭat*, or claimed] for them; then they settled and dug their stream which is known as the Asawira stream [or river]." This use of the word *khaṭṭa* means that someone else had established their *khiṭṭa* or claim for them.[49]

Fustat. Fustat was founded in the year 641 or 642 by ʿAmr ibn al-ʿAs.[50] Two contradictory theories have been propounded about how it was laid out. According to al-Hathloul,

information from al-Fustat suggests two issues that were certainly applicable in the other newly-founded amsar towns [Kufa and Basra]: the *khittah* as a system of planning; and the actual process of physical development within the city, including the formation of the street patterns. Regarding the first, the report of al-Maqrizi about the three *khitat*, Ahl al-Rayah, Ahl al-Zahir, and al-Lafif, suggests that the *khittah* was used as a unit of planning and that it represented a system that was repeated in all three towns. This system was based on the tribe as an already existing institution. However, this institution was flexible enough to expand or shrink to suit the standard number of inhabitants that seem to have been established for the *khittah*.[51]

On the other hand, describing the foundation of Fustat, Guest asserts that "if ᶜAmr [the general] had conceived the idea of assigning places to the founders of Fustat and arranging for building on any kind of regular scheme, of laying out the town on a definite plan, he would not have been in a position to carry out his project. There is some evidence that he did not make the attempt."[52] Then he concludes:

> the arrangement of *khittahs* with intervals would have enabled regular roads to be dispensed with at first. The plan of later Fustat shows no trace of even one direct main thoroughfare that may have dated from the foundation, and its tortuous streets and ways are just such as would have been formed if left to produce themselves as the town grew up.[53]

The first passage says that the tribes arranged themselves to fit a pre-planned system of units, i.e., that they were assigned *khittas* and did not themselves claim them or decide upon their boundaries. The second passage implies that tribes claimed and laid out their own *khittas*. My evidence supports the second.

When a person settled on a piece of land, it was recognized and respected as his property. Qaysaba b. Kulthum had settled on the land that was chosen to be the site for the mosque of ᶜAmr b. al-ᶜAs in Fustat. Al-Maqrizi relates that when the site had been decided, ᶜAmr asked Qaysaba for it, promising to give him another piece of land in its place. To this Qaysaba answered, "You Muslims know that I possessed (*huztu*) this site and owned it, and I am giving it as charity to the Muslims."[54] This case illustrates that even the general himself did not have the power to compel a person to relinquish his property. Al-Qaddaᶜi, when describing the settling of the tribes, states that they "conjoined in on one another and they competed for places; then ᶜAmr assigned Muᶜawiyya b. Khadij and ... [three other persons] to take charge of the *khittas*, and they abode the people and settled disputes between

the tribes; this was in the year twenty-one [642]."[55] This statement can be interpreted in two ways: either the *khittas* were already marked out and the tribes competed in selecting them, or the tribes came into conflict when they marked out their sites, and those four individuals were assigned by ᶜAmr to settle the disputes. But the phrase "conjoined in on one another" implies that the tribes all came in together; had the *khittas* already been marked out, the heads of the tribes would have been informed about their *khittas*' location, and no disputes would have ensued.[56]

Guest cites forty-nine *khittas* in the foundation of Fustat.[57] With four exceptions, all of them were named either after tribes or after individuals, mainly prominent figures or heads of tribes or subtribes. Al-Maqrizi describes the location and the inhabitants of twenty-one *khittas* in Fustat.[58] According to his description, again with the exception of the four *khittas*, each was settled by members of the same tribe. In other words the tribes did not shrink or expand to suit a standard number of inhabitants, but the *khitta* shrank or expanded to accommodate the size of the group. Furthermore, from the structure of the sentences which describe the formation of these *khittas* one can easily conclude that they were claimed by the tribes. For example, regarding the *khitta* of Lakhm b. ᶜAdiy, al-Maqrizi states that "Lakhm started its *khitta* from where al-Raya's *khitta* ended, and headed (*asᶜadat*) toward the north...." Regarding the *khitat* of the Persians, he states that the Persians "came with ᶜAmr ibn al-ᶜAs to Egypt," then they settled it [Fustat], and they claimed the foot of the mountain which is called Bab al-Bun mountain."[59] It seems that some tribes, such as the Bani Wāʾil, al-Qabbad, Rayya and Rashida, had managed to select better sites than others. Maqrizi's explanation is that they were among the first to come with ᶜAmr to Fustat; thus "they settled before the other people and claimed these places."[60]

Most of the *khittas* have descriptions that mention in one way or another that the tribes themselves settled their *khittas*. One tribe even had two *khittas* at the same time, and alternated their use. The tribe of Mahra had a *khitta* to the southeast (*qibliy*) of *khitta* al-Raya which "they used... to stable their horses on Fridays"; they also had another *khitta* at the foot of Yashkar mountain in which they resided. Maqrizi relates that the tribe of Mahra ultimately resided in the *khitta* near *khitta* al-Raya and abandoned its houses in the *khitta* on Yashkar mountain.[61] This implies that the process of allotting *khittas* involved settlement and not assignment; other-

wise a tribe could never have occupied two *khiṭṭa*s at the same time, especially one near *khiṭṭa* al-Raya in the center of Fustat, which the tribe used as a way station, and especially when there were other tribes that could not find a site to occupy.

Finally four *khiṭṭa*s — those of Ahl al-Zahir, al-Lafif, and al-Raya or Ahl al-Raya — were not named after tribes. According to Ibn Manzur, the army was made up of musters, each of which was listed in the *diwan* (army lists). Basing his argument on the observation that some tribes were subdivided and others obliged to combine to form a *khiṭṭa*,[62] Guest concludes that there was a connection between a *khiṭṭa* and a muster. To argue this he uses the formation of the *khiṭṭa* of Ahl al-Raya, al-Lafif, and al-Zahir. But al-Maqrizi, the source he refers to, does not support his conclusion. Guest probably misunderstood his source, because he did not notice that al-Maqrizi carefully distinguished between *khiṭṭa* (sing.) and *khiṭaṭ* (pl.). In fact, there was no relationship between a muster and a *khiṭṭa*, but there was a relationship between a tribe, or subtribe, and a *khiṭṭa*.

When he mentions the *khiṭaṭ* al-Lafif, al-Maqrizi uses the plural because eight subtribes are involved. The inhabitants of those *khiṭaṭ* voluntarily detached themselves from their tribes to follow a particular chief, ʿUmar b. Jumala. The inhabitants asked General ʿAmr for a separate muster in the *diwan*, but the request was refused because their kinsmen in the tribe objected. As a result the members of the subtribes were mustered with their kinsmen residing in different *khiṭṭa*s, but not with their tribes. As for the *khiṭaṭ* of Ahl al-Zahir, al-Maqrizi explains that they were named al-Zahir ("outsider") because the tribes which settled on them arrived very late and found every site occupied. The name al-Zahir refers to the site; it has nothing to do with a muster. This is clear from the *khiṭṭat* al-ʿUtaqa; which is in the center of the al-Zahir site; its inhabitants were mustered together with the inhabitants of the *khiṭṭat* Ahl al-Raya in the center of Fustat. In other words the inhabitants of two *khiṭṭa*s at some distance from each other were mustered up together.

The *khiṭṭa* of Ahl al-Raya (the People of the Flag), is explained by al-Maqrizi as resulting when many tribes, each with too few individuals to justify a separate muster in the *diwan*, refused to be attached to or referred to by the name of some other tribe. "So ʿAmr made a flag (*raya*) for them and did not ascribe it to anyone, and said, 'you should muster beneath it,' so it became their common lineage."[63] The Ahl al-Raya and the inhabitants of the *khiṭṭat* al-ʿUtaqaʾ who had arrived late and had had to settle outside Fustat were mustered together.

The *khiṭṭa* of the Ahl al-Ray was clearly claimed by the inhabitants and not assigned to them. Al-Maqrizi reports that they started marking their *khiṭṭa* from the spot where they had stood when they besieged the fortress known as Bab al-Hisn (the Gate of the Fortress). Then they extended their *khiṭṭa* to Hammam al-Far and on to the west up to the Nile. He adds that "this *khiṭṭa* surrounds the great mosque on all sides,"[64] which tells us that it was not contiguous.

The fourth *khiṭṭa* not named after a tribe were the three *khiṭaṭ* of al-Hamrawat (literally, the reddish *khiṭṭa*s). Within the *khiṭaṭ*, each *khiṭṭa* contained many *khiṭaṭ* belonging to various tribes. The majority of the settlers were non-Arab Muslims who had come with ʿAmr from Damascus. For example, the *khiṭṭa*s of Bani Rubil were settled by the approximately one thousand Jews and the *khiṭṭa*s of Bani al-Azraq by four hundred "Romans" who had converted to Islam. These *khiṭṭa*s, too, were claimed and not assigned.[65]

Finally the description of the *khiṭṭa*s of al-Jiza, in a part of Fustat on the western side of the Nile, given by al-Maqrizi clearly implies that the tribes claimed their *khiṭṭa*s and themselves decided upon their boundaries. When, on Caliph ʿUmar's request, General ʿAmr asked them to move back to the eastern side of the river for strategic reasons, the tribes refused and ʿAmr had no way to compel them to obey.[66]

It is clear, then, that Fustat was not planned by a central authority and that the *khiṭṭa* was never used as a planning unit; rather, each tribe claimed its *khiṭṭa* and established its own boundaries. If each tribe had the right to establish its own boundaries, it certainly owned and controlled the land within them.

The situation in Kufa was somewhat different, but it can still be extrapolated from the better documented settling of Basra and Fustat. The major difference is that Fustat was occupied gradually; Kufa was settled all at once. The settlers had stayed in al-Madaʾin temporarily; then they moved on when the site for Kufa had been selected.

Abu al-Hayyaj and a group of men of distinguished reputation (*ahl al-raʾy*) were given the task of laying out the main roads in Kufa, which were to radiate out from the square; they were also to follow Caliph ʿUmar's advice on the width of those roads. Unfortunately we know nothing about the identity or size of this group.

However it is likely that its members were from the various tribes, each representing his own tribe's interests. According to al-Tabari's report, the decisions were made by Abu al-Hayyaj after agreements were reached among those representatives. This implies that Abu al-Hayyaj did not make the decision, but was rather an organizer or even a mediator among the members.

Little is known about how the tribes were settled in the town. However, al-Tabari relates that they were located on the land between the main marked roads. He also gives their names and where each was located. In some cases more than one tribe shared the site between two roads. For example, the tribe of Juhayna shared the road and the area between two roads with a group of people who did not belong to any tribe (akhlāṭ). His description does not imply that tribes shared khiṭṭas, as some scholars have claimed,[67] but that they shared the main road or the area between two main roads. In other words, the khiṭṭa was not used as a planning unit; its size was reduced or expanded according to the size of the tribe that was to settle on it. This is clear from al-Baladhuri when he reports that Nizar's khiṭṭa was sited on the west side of the marked square and contained eight thousand individuals, while the Ahl al-Yaman, with a khiṭṭa on the east side of the square, had twelve thousand.[68] Furthermore, the roads radiating from the square varied in number in different directions. Toward the north five roads were marked, toward the south four, and toward the east and west three. This suggests that the areas in between these roads were not equal. Following ʿUmar's instructions, the allotments given to individuals were also not of a uniform size.[69]

Al-Tabari adds that "[the tribes] built [did not mark] secondary roads that were narrower than the main roads and ran either parallel to or between them." The latter, the connecting roads, met but did not intersect the main roads.[70] The main roads were marked out by a central authority, but the narrower secondary roads were not. They either emerged as a result of the incremental building of dwellings or they were designated by adjoining tribes as boundaries between their khiṭṭas or by members of the same tribe to mark out holdings within the tribal khiṭṭa. When al-Tabari tells us that the streets met, but did not cross, the main roads, this too suggests that their course was decided on by the inhabitants, whether the various tribes or members of a single tribe.

Al-Tabari's description mentions twenty tribes and suggests that they included all the tribes that originally inhabited Kufa. Al-Janabi tells us that at its foundation Kufa's population included approximately a hundred thousand combat soldiers,[71] suggesting that the population of each khiṭṭa numbered in the thousands. Each khiṭṭa was so large that it had its own cemetery and mosque.[72] Sources agree that each tribe subdivided its own khiṭṭa.[73]

If the authorities did not intervene by assigning khiṭṭas in Fustat and deciding on their boundaries in Fustat, Kufa, and Basra, then we can assume that it also did not interfere with the way each tribe used its land. Where a tribe occupied one large khiṭṭa, it must have had complete tribal autonomy. The only regulation imposed from outside was that to ensure privacy dwellings could not exceed three stories.[74]

The sources indicate not only that each khiṭṭa includes many smaller khiṭṭas which in turn contain many more still smaller khiṭṭas, but that a khiṭṭa need not be completely built on. The residing party can leave unbuilt spaces and still retain ownership. In al-Jiza the khiṭṭas clearly contained open spaces so that when reinforcements were sent and the population increased, each group had land left for any relatives. In this way the building so increased that the khiṭṭas of Jiza closed up into one.[75] In Kufa, al-Tabari says that when a new group of people (al-rawādif) arrived, the inhabitants of a dwelling or a khiṭṭa would either make room for the newcomers, if they were few, or some inhabitants would move out and join their relatives on new land, if the newcomers were numerous.[76] This suggests that a khiṭṭa, whether a dwelling or a tribal holding, included some unbuilt space. Since the tribe collectively invited newcomers belonging to the tribe to occupy unoccupied land within the khiṭṭa, the tribe must collectively have controlled all the khiṭṭa's unbuilt space. In the case of families or groups of families, relatives were permitted to settle unbuilt territory, indicating that families too controlled their unbuilt spaces.

Putting all these pieces together we may conclude that all the decisions in these towns were made by the inhabitants, with no intervention from the central authority. Shared places such as forecourts, squares, streets, and culs-de-sac within the khiṭṭa were collectively owned and controlled. The town thereby became a series of adjacent properties controlled by its users, suggesting that the morphology of these towns came about as the result of the many small decisions made by the settlers themselves. The users owned the land that became the lanes and dead-end streets; the streets were
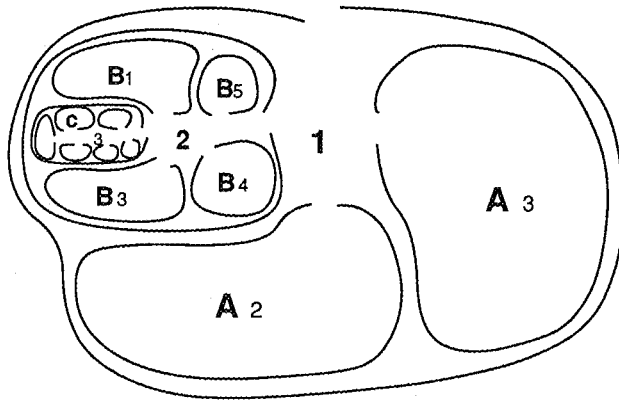
1. Territorial structure of the early Muslim garrison town. Letters refer to group (A), subgroup (B), and private holdings (C); numbers refer to vacant or shared space.

The economic, cultural, and social implications of this change are many. Keeping the city clean, for example, was once the responsibility of the inhabitants, since they would not have allowed an outsider to trespass on their land. In contemporary Muslim cities, governments have to keep the public spaces clean, because the users no longer own it and no longer feel responsible for it. Although the old system had its advantages, it also had its drawbacks. The lessons that can be drawn from the past about city organization remain to be discussed.[77]

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determined by the boundaries of the quarters. Each *khiṭṭa* contained other smaller *khiṭṭas* that held even smaller *khiṭṭas*, and so on. In figure 1, the space marked (1) is the space from several subtribal claims (marked A) that has been deliberately left vacant. Each subtribal territory (A) contains several subdivisions (B) and a shared space (2). Each subdivision (B) includes several private properties (C) and a shared space (3). Every holder of a (C) controls his own property and is also a member of the party that controls the (B) subdivision and that owns the (3) shared space. They, along with the rest of the (B)'s, control the larger shared space. The space marked (1) is controlled and owned by the whole group (A's).

The major structural difference between contemporary cities and the early Muslim garrison towns is that today individuals do not control public spaces directly. They are now controlled by external agencies, such as municipalities. Any individual has the right to enter any street. Except for private property, territorial boundaries are not well defined in the modern city and professionals use physical elements to define the hierarchy of spaces — public, semi-public, and semi-private — that used to be demarcated by the *khiṭṭa* system, according to which all spaces were private, and controlled by family, subtribe, tribe, etc., depending on the space. When every space in the city was controlled by the clearly defined entity that inhabited the site and not, as in present-day municipalities, by an authority remote from it, responsibility for it was also clear-cut.

NOTES

1. G. E. von Grunebaum, *Islam: Essays on the Nature and Growth of a Cultural Tradition* (London, 1961), pp. 144-45.
2. K. A. C. Creswell, *Early Muslim Architecture*, 2d ed. (New York, 1979), vol. 1, pt. 1, p. 22; for the use of the verb, see also pp. 28, 39.
3. Von Grunebaum, *Islam*, p. 141.
4. Creswell, *EMA*, 1:38.
5. Jacob Lassner, *The Topography of Baghdad in the Early Middle Ages* (Detroit, 1970), p. 138.
6. A. R. Guest, "The Foundation of Fustat and the Khiṭṭahs of that Town," *Journal of the Royal Asiatic Society of Great Britain and Ireland*, January 1907, p. 82.
7. This classification is made by Muslim jurists. See A. D. al-ʿAbbādi, *al-Mulkiyya fi al-Sharīʿa al-Islāmiyya*, 3 vols. (s.l., 1974), 2:29; *al-Majalla: Majallat al-Aḥkām al-ʿAdliyya* (Beirut, 1302 H.), article 1248.
8. Ibn ʿĀbdīn, *Rad al-Muḥtār ʿala al-Dur al-Mukhtār*, known as *Ḥashiyat Ibn ʿĀbdīn*, 8 vols. (Beirut, 1966), 6:431. Al-Shafiʿi (d. 819) defines *mawāt* as "what is not urbanized or built (ʿāmir) and that which belongs to it (pasture land, for example), even if [that land] abuts urban land"; al-Māwardi (d. 1058), *al-Aḥkām al-Sulṭāniyya* (Cairo, 1960), p. 177.
9. For details, see Abu Yūsuf, *Kitāb al-Kharāj* (Beirut, 1979), p. 63.
10. The Hanbali rite defines it as "what is not owned by anyone or has no trace of settlement on it" (Ibn Qudāmah, *al-Mughni*, ed. M. Harras, 9 vols. (Cairo, n.d.), 5:563. The Maliki rite defines it as "the land that is not owned by any person and is not useful [because it is not utilized]" (al-ʿAbbādi, *al-Mulkiyya fi al-Sharīʿa al-Islāmiyya*, 1:307). Those who disagree are Abu Yusuf (d. 798) and Abu Hanifa from the Hanafi school of law. Abu Yusuf defines it as "any land so distant from settled areas that if a man calls out loudly from there, his voice cannot be heard [in the settlement]," Abu Yaʿla al-Ḥanbali (d. 458 H., *al-Aḥkam al-Sulṭaniyya* (Cairo, 1966), p. 209; Ibn Qudāmah, *al-Mughni*, 5:567.
11. For details, see Jamel Akbar, "Responsibility and the Traditional Muslim Built Environment," Ph.D. diss., Massachusetts Institute of Technology, 1984, pp. 71-84.

12. Yihya ibn Ādam al-Qurashi, *Kitāb al-Kharāj* (d. 203 H.) (Beirut, 1979), p. 91. Malik (d. 795) explained, "The unjust root is whatever is taken or planted without right." He also stated, "[Reviving land] is what is [customarily] done in our community" (A. Mālik, *al-Muwaṭṭā* [Beirut, 1981], p. 528; trans. Y. Johnson and A. al-Turjumana [s.l., 1982], p. 346). Similar traditions regarding reviving "dead" land are numerous; every book of law is full of them (e.g., Abi ʿUbayd al-Qasim b. Salam [d. 224 H.] gives six in his book, *Kitāb al-Amwāl*, ed. M. Harras [s.l., 1975], pp. 362-66).

13. Ibn Ādam, *Kitāb al-Kharāj*, p. 63; Ibn Qudāmah, *al-Mughni*, 5:563; the authority used to recognize ownership of revived land; for example ʿUmar b. ʿAbd al-ʿAziz (d. 720), wrote to his governor requesting him to recognize ownership rights to dead land for those who revived it (Abi ʿUbayd, *Kitāb al-Amwāl*, p. 369).

14. The first type is called *iqtāʿ tamlīk*, the second is *iqtāʿ istighlāl*. This is a summary of the classification made by al-Hanbali, *al-Aḥkām al-Sulṭaniyya*, pp. 227-40, al-Māwardi, *al-Aḥkām al-Sulṭaniyya*, pp. 190-98; Ibn Qudāmah, *al-Mughni*, 5:567-80.

15. Al-Baladhuri, *Futūḥ al-Buldān* (Beirut, 1978), pp. 134-295.

16. This is based on the Prophet's tradition, "Common land belongs to God and his Prophet; then it is yours. He who revives dead land owns it; and the demarcator has no right [to it] after three years." The sources tell us that ʿUmar, the second caliph, reconfirmed this principle. Abu Yusuf's theory is that he did so because people had begun to claim dead land without using it (Abu Yusūf, *Kitāb al-Kharāj*, p. 65); for details, see Akbar, "Responsibility and the Traditional Muslim Built Environment," pp. 77-81.

17. *Al-khiṭṭu wa al-khiṭṭatu: al-ardu tunzalu min ghayri an yanzilaha nāzilun qabla dhālik*; Ibn Manẓūr, *Lisān al-ʿArab al-Muḥīṭ*, ed. Y. Khayyat and N. Marʿashli, 3 vols. (Beirut, n.d.), 1:858.

18. *Wa kullu ma ḥazartahu fa-qad khataṭṭa ʿalyhi; ḥazartahu* means "You have prevented others from using and possessing an object." Ibn Manẓūr, *Lisān al-ʿArab al-Muḥīṭ*, pp. 665-66.

19. Ibid., p. 858.

20. For example, *ḥazīra* is used to mean an animal pen; it is derived from *ḥazāra* and means "to prevent the animals from moving in or out" (ibid., pp. 665-66).

21. A. al-Wansharisi, *al-Miʿyāru al-Muʿrab*, 12 vols. (Rabat: Ministry of Endowments and Islamic Affairs of Morocco), 2:227.

22. Nur al-Din al-Samhūdi, *Wafāʾ al-Wafa* (Beirut, n.d.), 2:489; al-ʿAbbas says, "This *khiṭṭa* is marked out (*khaṭṭaha*) for me by the Prophet and I build on it and the Prophet builds on it with me" (see also p. 483). For al-Baladhuri, see p. 342, in which he describes Basra: "The people marked out (*akhtaṭṭu*) and built their houses." On p. 215, he says, "al-Zubayr marked out (*akhtaṭṭa*) and built his famous house in Egypt. See also pp. 216, 230, 232, 235, 241. For al-Maqrizi, *Kitāb al-Mawāʿiz wa al-Iʿtibār*, 2 vols. (Cairo, n.d.), 1:286. For Abu Yūsuf, *Kitāb al-Kharāj*, p. 30, in which he refers to Kufa saying, "The people marked out [their claims] and settled in Kufa." For Ahmad ibn Abi Yaʿqūb al-Yaʿqūbi, *Tārīkh al-Yaʿqūbi*, 2 vols. (Beirut, 1960); see his description of Samarra, 2:358, 472-73.

23. Al-Baladhuri, *Futūḥ al-Buldān*, p. 345.

24. Guest, "The Foundation of Fustat," p. 57.

25. Al-Baladhuri, *Futūḥ al-Buldān*, p. 341. Al-ʿAbbas provides another usage when he says that when ʿUmar wanted to demolish his house, "the Prophet has marked it out (*khaṭṭaha*)

26. for me, and installed its drainspout by his hand," al-Samhudi, *Wafāʾ al-Wafa*, 2:489.

27. The meaning of *ribāʿ*, pl. of *rabʿ*, is "dwellings"; Ibn Manẓūr, *Lisān al-ʿArab al-Muḥīṭ*, 1:1110.

28. Al-Samhudi, *Wafāʾ al-Wafa*, 2:717-18.

29. Ibid., p. 732.

30. See below, section on Basra.

31. See, for example, al-Baladhuri, *Futūḥ al-Buldān*, pp. 342-66; al-Maqrizi, *Kitāb al-Mawāʿiz wa al-Iʿtibār*, 1:286; al-Yaʿqubi, *Tārīkh al-Yaʿqūbi*, 2:150-51.

32. For Baghdad, see, for example, al-Baladhuri, *Futūḥ al-Buldān*; al-Yaʿqubi, *Tārīkh al-Yaʿqūbi*, 2:374.

33. Al-Yaʿqūbi, *Tārīkh al-Yaʿqūbi*, 2:472-73.

34. Ibn Manẓūr, *Lisān al-ʿArab al-Muḥīṭ*, 1:858.

35. Al-Yaʿqūbi, *Tārīkh al-Yaʿqūbi*, 2:358; for another example, Usama al-Hanafi reports that the Prophet marked out a mosque for his community. The usage suggests that the Prophet established the boundaries of the mosque and nailed up a piece of wood to indicate the qibla direction (A. al-Kittani, *al-Taratīb al-Idāriyya*, 2 vols. (Beirut, n.d.), 2:76.

36. Guest, "Foundation of Fustat," pp. 57-58.

37. This is reported by Ubay ibn Kaʿb quoting the Prophet Muhammad; al-Samhūdi, *Wafāʾ al-Wafa*, 2:483; see also p. 489, in which it is reported differently, but with the same suggestions that the *khiṭṭa* is not marked out on the ground and that part of the *khiṭṭa* can overlap with another's house.

38. Al-Baladhuri, *Futūḥ al-Buldān*, p. 274.

39. M. al-Tabari (d. 923), *Tarikh al-Rusul wa al-Muluk* 10 vols. (s.l., 1963), 4:21-42.

40. Al-Balādhuri, *Futūḥ al-Buldān*, p. 275.

41. Al-Tabari, *Tārīkh*, 4:44.

42. Ibid., 4:44-45.

43. In my book, *Crisis in the Built Environment: The Case of the Muslim City* (Leiden: E. J. Brill, 1988), I argue that intervention by the authority has many disadvantages and that the traditional environment was in better physical condition than it is today because it was shaped by the users.

44. See al-Janabi's interpretation of Kufa, *Takhṭīṭ al-Kufa* (Baghdad, 1967), p. 77.

45. Al-Baladhuri, *Futūḥ al-Buldān*, p. 342.

46. For a definition of *mirbad*, see Ibn Manẓūr, *Lisān al-ʿArab al-Muḥīṭ*, 1:1105.

47. Al-Māwardi, *al-Aḥkām al-Sulṭaniyya*, pp. 179-80.

48. Abu Yaʿlā al-Hanbali, *al-Aḥkām al-Sulṭaniyya*, pp. 212-13.

49. Al-Hathloul's translation, for example, of J. Zaydan's citation of al-Mawardi's statement is that "the settlers divided the city into *khiṭaṭ* according to tribes, assigning a *khiṭṭa* for each tribe," suggesting that each tribe was assigned a *khiṭṭa* and did not select or decide by itself upon the boundaries (Saleh al-Hathloul, "Tradition, Continuity, and Change in the Physical Environment," Ph.D. diss., MIT, Cambridge, Mass., 1981, p. 35).

49. Al-Baladhuri, *Futūḥ al-Buldān*, p. 275.

50. Different dates were given regarding the foundation of Fustat. See al-Tabari, *Tārīkh*, 4:109, and al-Maqrīzī, *Kitāb al-Mawāʿiz wa al-Iʿtibār*, 1:297.

51. Al-Hathloul, "Tradition, Continuity, and Change," pp. 39-40.

52. Guest, "Foundation of Fustat," p. 56.

53. Ibid., p. 78.

54. Al-Maqrizi, *Kitāb al-Mawāʿiz wa al-Iʿtibār*, 1:246.

55. Ibid., 1:297.

56. Guest suggests that a general commotion arose as a result of converting Fustat from a temporary camp into a permanent settlement. This conversion may have involved some internal changes of the tribes' territories without necessarily disturbing the main features of the general arrangement. This resulted in assigning these four individuals to settle disputes. By referring to his resources, there is not much evidence to support this suggestion, ''Foundation of Fustat,'' p. 57.

57. Ibid., p. 83.

58. Al-Maqrizi, *Kitāb al-Mawā'iz wa al-I'tibār*, 1:296-99.

59. The Arabic sentence is *fa akhtaṭṭu biha wa akhadhū safḥ al-jabal* (ibid., 1:298).

60. The Arabic sentence is *fa-nazalu fi muqaddimati al-nās wa ḥāzu hadhihi al-mawāḍi'* (ibid., 1:298).

61. Ibid., 1:297.

62. For the definition of *diwan*, see Ibn Manẓūr, *Lisān al-'Arab al-Muḥīṭ*, 1:1039. Guest's conclusion is based on the *khiṭṭat* Ahl al-Raya of which he says, ''The parties associated in the *Khiṭṭat* Ahl er-Rayah were obliged to combine, because they were too small singly for a separate muster in the diwan'' (Guest, ''Foundation of Fustat,'' p. 58).

63. Al-Maqrīzī, *Kitāb al-Mawā'iz wa al-I'tibār*, 1:297.

64. Ibid. The fortress was the only building in Fustat; ibid., 1:286.

65. Ibid., 1:298-99.

66. Ibid., in his description of the *khiṭaṭ* in al-Jiza, he always uses the term *ikhtaṭṭa* or *akhtaṭṭat*, referring to the tribal leader or the tribe in general as the claimer of the land (ibid., 1:206; see also al-Ya'qūbi, *Tārīkh al-Ya'qūbi*, 2:156).

67. Al-Hathloul interpreted both the roads and the space between the roads as *khiṭṭa* (''Tradition, Continuity, and Change,'' p. 37).

68. Al-Baladhuri, *Futuḥ al-Buldān*, pp. 275-76.

69. Al-Janābi lists the names of those individuals and the site of some of the allotments (*takhṭīṭ al-Kūfa*, p. 85).

70. Al-Tabari, *Tārīkh*, 4:45.

71. Al-Janabi, *Takhṭīṭ al-Kūfa*, pp. 41-42; al-Tabari, *Tārīkh*, 4:45.

72. Al-Janābi, *Takhṭīṭ al-Kūfa*, pp. 87-88, 93-94.

73. Ibid., p. 74.

74. Al-Ṭabari, *Tārīkh*, 4:44.

75. Guest, ''Foundation of Fustat,'' p. 78.

76. Al-Ṭabari, *Tārīkh*, 4:45; for the meaning of *al-rawādif* and *rādifa*, see Ibn Manẓūr, *Lisān al-'Arab al-Muḥīṭ*, 1:1152.

77. For a discussion of these issues, see my *Crisis in the Built Environment*, chap. 8.