S. L. A. Marshall and the Ratio of Fire

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In the spring of 1947 a new book entitled Men Against Fire: The Problem of Battle Command in Future War, began serialising in the American military periodical, Infantry Journal. For the next 12 issues of the Journal, the author, journalist, and sometime soldier S. L. A. Marshall, quite deliberately turned away from the preoccupations of modern military thought. As post-war military commentators were puzzling over the implications of Bernard Brodie's famous axiom on deterrence, published in The Absolute Weapon the year before, and contemplated a world in which the existence rather than the actual use of military force was the mainstay of national defence, Marshall took his readers back to the war just won.1 To his mind, the new atomic age had changed little, except to seize the official and public imagination. "The fatal idea continues to spread," he wrote, "that nothing counts except the future use, or non-use, of this one weapon". Marshall argued that "the tactical and human lessons of the past" still applied in modern warfare. As his theme in Men Against Fire, therefore, Marshall chose to address "the tactical fact which is at once the simplest and most complex topic in the military art—man himself as a figure on the field of combat".2

Marshall's observations

Little in Men Against Fire was original; it owed much to classic works on the order of Saxe's Mes Reveries and Ardant du Picq's Etudes sur le Combat. Upon these classics, Marshall superimposed his own observations from the war. Few of those observations would have seemed strange to a veteran of infantry combat: that he was often the last and least considered element of modern warfare, though he bore the greatest burdens; that ignorance, alienation, and chance governed the fighting soldier's existence more than the elegant strategies of the high command; and that men under fire cleave to one another as to a mast in a stormy sea. The veteran knew all too well that his training was never equal to the demands of actual combat, and knew that combat was a lethal race to understand how to survive and function in a world organised for his death. The veteran understood, too, that even if he soldiered perfectly he might not live out the day. What the veteran soldiers of the Second World War knew had seldom been addressed in intellectual venues; it was the folk knowledge of warfare, learned anew with each war and handed down from soldier to soldier. Marshall attempted to codify and translate some of this special class of knowledge for those who were innocent of combat.3

The centrepiece of Men Against Fire had less to do with Marshall's sympathetic and humanistic interpretation of modern combat, however. Soldiers would have nodded approvingly, and did, at seeing in print lessons they had learned at such high cost, but Marshall had an allegation to make that startled even some veterans. Citing evidence he had gleaned from interviews with rifle companies fresh from combat, Marshall concluded that only one soldier in four fired his weapon while in contact with the enemy:

In an average experienced infantry company [Marshall wrote] in an average stern day's action, the number engaging with any and all weapons was approximately 15 per cent of the total strength. In the most aggressive infantry companies, under the most intense local pressure, the figure rarely rose above 25 per cent of the total strength from the opening to the close of the action.⁴

The "ratio of fire" between those soldiers who used their weapons and those who did not, consummated Marshall's argument in Men Against Fire. Marshall's concept of victory depended upon a series of simple calculations: victory in battle was merely the sum of successful combats, like a team playing toward a pennant. He reduced the whole art of tactics to a fundamental proposition—"how much fire can be brought to bear . . .". For Marshall, fire represented "tactics in a nutshell". The guarantor of success in battle was an elementary truth. "I say that it is a simple thing," he wrote, "What we need in battle is more and better fire."

An "intuitive thinker"

Marshall had no use for the polite equivocations of scholarly discourse. His way of proving doubtful propositions was to state them more forcefully. Righteousness was always more important for Marshall than evidence. One wartime friend described Marshall as "an intuitive thinker" and remembered that he "was always absolutely sure he was right". 6

The foundation of his conviction was not scholarship but his own military experience, experience that he inflated or revised as the occasion warranted. Marshall often hinted broadly that he had commanded infantry in combat, but his service dossier shows no such service. He frequently held that he had been the youngest officer in the American Expeditionary Forces during the Great War, but this plays with the truth as well. Marshall enlisted in 1917 and served with the 315th Engineer Regiment—then part of the 90th Infantry Division—and won a commission after the Armistice, when rapid demobilisation required very junior officers to command "casual" and depot

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companies as the veteran officers went home. Marshall rarely drew such distinctions, however, leaving his audiences to infer that he had commanded in the trenches. Later in life, he remarked that he had seen five wars as a soldier and 18 as a correspondent, but his definitions of war and soldiering were, rather elastic. That he had seen a great deal of soldiers going about their deadly work was no empty boast, however. This mantle of experience, acquired in several guises, protected him throughout his long and prolific career as a military writer, and his aggressive style intimidated those who would doubt his arguments. Perhaps inevitably, his readers would mistake his certitude for authority.⁷

The book's success

Approving reviews of Men Against Fire soon appeared; more important for the book's success, it found a sympathetic audience in soldiers. The Infantry Journal's 1948 issues routinely carried testimonials to the book. Sergeant 1st Class Frederick Lurie called upon the Army to make the book required reading for "all recruits, noncoms, and officers". The editors replied, rather fulsomely, that "Lurie's opinion of the importance of Men Against Fire is in large part shared by General Omar Bradley, Chief of Staff, and every other soldier of any rank who has read it". Before the year was out, an Infantry Journal reader enlisted Marshall's "cold, hard facts" in a letter to the editor and quoted Marshall's statistical findings at length. 10

By 1950 Marshall was satisfied that the book had been taken seriously in military circles. B. H. Liddell Hart heard from Marshall that the book "has been accepted by the Army as doctrine, more or less, and is being put to increasingly greater use"." Much later, in a new preface to Men Against Fire, Marshall recalled that "at centers like Forts Benning, Knox, and Riley, during the years 1948-49, to overcome weapons inertia, imaginative trainers instituted wholly new methods, some of which were suggested in the book". Marshall clearly understood that the reason for the book's popularity was his provocative and seemingly precise findings about combat performance. "Ratios of fire," he remembered, "drew main attention and stirred initial controversy".12 The ratio of fire had already evolved from soldierly wisdom to military cliché. After a temporary tour of duty at the Korean front, Marshall reported with his usual confidence to the Secretary of the Army in April 1951, that the ratio "had risen beyond 55 per cent both in night defense and daytime attack—more than doubling the World War II output".13

No one seems to have disagreed with Marshall, at least in print. Precise evidence systematically collected by an experienced observer of men in combat forestalled any instinctive disagreements or personal observations that might have been offered. Beguiled by the potent combination of Marshall's style and experience, scholars have frequently and approvingly cited *Men Against Fire* as well as his other works. When Roger A. Beaumont and William P. Snyder wrote that "Marshall's great achievement rested on imaginative and careful research," and that "his influence . . . stemmed from his credibility as a

soldier and avoidance of abstract sociological and psychological concepts", they were quite in accord with the the judgments of their colleagues. 14 Russell F. Weigley had no compunction about accepting Marshall's findings without cavil. In Eisenhower's Lieutenants, Weigley used Marshall's ratio to substantiate the American high command's impressions during the Second World War that "the infantry on which they would rely as their main combat resource was not particularly aggressive". 15 Comparing German and Allied infantry effectiveness in Western Europe in 1944, John English argued in On Infantry that the German emphasis upon combat as a group affair accounted for the critical difference in the tactical performance of the two armies. In this case, Marshall was given as the authority on Allied performance.16 And while the ratio of fire provided an apparently inviolable standard of measurement for the combat performance of American soldiers in the Second World War, on occasion the claim has been elevated to the status of a general principle of tactics. One perceptive student of the human dimensions of combat has proposed that "Marshall's insights into the motives and behaviour of combatants in World War II are also valid for those who fought in the First World War". 17

A more measured view of Marshall's work came, appropriately enough, from John Keegan, whose Face of Battle has done so much to rejuvenate an interest in understanding warfare from the combatant's "angle of vision". To Keegan, Marshall was "an American du Picq," and he felt when Marshall spoke at the British Staff College in Camberley that Marshall "was touched by genius". 18 Even so, Keegan refused to believe that Marshall's "revelations about the effective fighter and group loyalty are a sufficient explanation of how battle burdens are borne". 19

A reputation of note

After Korea, Marshall was at the height of his powers. Men Against Fire was his fourth book; he eventually wrote 30 in all, as well as countless articles and essays. His writings, his friendship with American officers of even higher ranks, and his tireless advocacy of the soldierly view made him an important figure in the armed forces of the United States and several other countries. He was a fixture in the American Army, speaking regularly at the war and staff colleges and at officers' calls from post to post. He never needed an introduction to those audiences, and if anyone thought to question his observations, as Keegan remembers from Marshall's Camberley performance, the hapless interrogator was treated to a display of bad manners, "aggressive, hectoring, and rude . . . cheerfully insult[ing] those who asked him what he thought were stupid questions".20

By then, Marshall's reputation was fortified by the scope and sheer quantity of his work, and few could compete with his passionate interpretations of the American fighting man in the crucible of combat. No one who encountered S. L. A. Marshall, in print or in person, would forget his authoritative manner, but if one were to fix upon the source of Marshall's

acclaim, the "ratio of fire" and how he uncovered the truth of battle formed the pivot of his authority. Indeed, the ratio and the method by which he deduced it, more than any other facets of his work, set Marshall apart from his contemporaries.

details of combat. After one particularly harrowing night of fighting, Marshall discovered that "few of those who were closest to it, including the actual commanders in the battle, knew much more about it than that our men had behaved well in a difficult



Marshall in the Pacific interviewing two infantrymen c. 1943–44.

Photo: S. L. A. Marshall Military History Collection, University of Texas.

Marshall had developed his ideas on infantry combat performance without resorting to a statistical pose well before he wrote Men Against Fire. In Island Victory, a book derived from his tour as a combat historian with the 27th and 7th Infantry Divisions during operations on Makin and Kwajelein Islands in late 1943 and early 1944, Marshall explained a technique he had conceived that later was hailed as the basis for "an entirely new kind of military history"—the combat after-action interview.21 Marshall went to the Pacific as part of the Army's attempt to capture the history of the war as it was being made. As one of a handful of writers and historians made officers for the duration, Marshall was a member of the Army's G-2 fledgling historical division. He and his colleagues insisted that they must get to the operational theatres of war if they were to make a start at this unprecedented official history enterprise. Marshall was one of the first to escape Washington. 22

When Marshall went ashore with the fourth wave at Makin, the confusion of battle overwhelmed him. Struggling to make sense of the 165th Infantry Regiment's tactical operations, Marshall found that he could not reconcile even the most elementary

situation". Then, Marshall called all the survivors of the action together and began questioning them en masse.23 Years later, Marshall recalled, "Piece by piece we put it all together. The story of the night's experience came clear as crystal. It was like completing the picture of a jigsaw puzzle. At last I knew that, quite by accident, I had found what I had sailed west seeking".24 The interview would begin with the initial contact with the enemy and move from soldier to soldier, tracing the action as it progressed. Anyone in the assembly was free to challenge a recollection in the interests of refining the picture of the action. Marshall always held that, in the company of his comrades, no soldier would enlarge or misrepresent his own role in the fight.25 The first group interview took four days, but Marshall later recommended three days of interviewing for one day of combat.26

Historical precedents

The concept of reconstructing a battle from participants' memories was not new. Well after Waterloo, the British Army commissioned Captain William Siborne to construct a terrain board of the battle. Although Siborne's objectives were

antiquarian and celebratory, he took his work seriously, living in a farmhouse near La Haye Sainte on the battlefield for eight months, and studying all the documents he could obtain. He then sent out a circular letter that solicited specific operational and tactical details from all the surviving officers. Fourteen years after Siborne began, he published a two-volume history of the battle that drew upon the recollections his inquiries had gathered.27 Although Siborne would have been reluctant to say so, his approach contradicted the conventional wisdom that the commander somehow contained within himself the power to control every event in battle. Siborne's project nonetheless anticipated the, as yet, poorly articulated need by professional soldiers in the nineteenth century for increasingly precise information about what really happens in combat. These same motivations inspired the work of Ardant du Picq nearly half a century later. Du Picq had employed the same technique as Siborne, canvassing his own officer corps by questionnaire for the facts of battle, but du Picq's experiment was an unhappy one. The very nature of du Picq's questions were considered impertinent by some of his colleagues, and they refused to cooperate. Turning to history instead, du Picq wrote what is still one of the most insightful works in this minor class of military literature. 28

A new method

Marshall certainly knew of du Picq, but never acknowledged his debt to the French officer. Men Against Fire refers in passing to du Picq, but the suggestion that Marshall's own work was somehow derivative rankled him.29 In 1964 Stephen Ambrose wrote to Marshall, asking him to read a draft paper that drew comparisons between du Picq and Marshall; "What has amazed me is how similar your conclusions are," Ambrose wrote. ³⁰ Some time later, Marshall pencilled a screed on the flyleaf of his own copy of du Picq: "I think it a bad book and far from a 'classic' ... [du] Picq is ignorant of his subject and simply guessing—tho[ugh] he travelled a distance on little gas." But du Picq was not alone in being rejected by Marshall as an intellectual forebear; Marshall recognised no one as his equal on the subject of men in battle.31

Marshall had in fact created a new method for military history. The difference between Siborne, du Picq and Marshall lay in the promptness with which recollections of combat were gathered, and from the orientation of Marshall's inquiries—the combat soldier himself. His approach insured that the combat narratives he eventually produced would "democratise" the interpretation of battle. Marshall's method was, as John Keegan points out, suitably American not only in voice but in object, for Marshall meant that his work should have an immediate tactical effect.32 "The fighting men do not know the nature of the mistakes which they make together" [his italics] Marshall wrote in Island Victory, "and not knowing, they are deprived of the surest safeguard against making the same mistakes next time they are in battle".13 What the soldiers and their commanders learned about their own combat performance during the course of the

"interview after combat," as Marshall called the technique, was as at least as beneficial for its tactical as for its historical findings.

Oral history, as scholars know it today, was not an accepted historical technique during the early days of the Second World War, and in any case Marshall never counted himself as a conventional scholar. His conception of the new technique on Makin Island was inspired first by the confused face that battle inevitably shows to outsiders and participants alike. Yet the man who had come to Makin to record the history of combat was, above all, by professional upbringing and temperament a journalist. His career in a trade well-suited to the recording of chaos, mayhem and human tragedy was the vital additive required to accomplish what his more traditionally trained colleagues in the historical division had thus far failed to do. Ji

On Makin and Kwajelein, and later in Europe, Marshall drew upon the pre-war trade he knew so well. The approach to knowledge was the same: get to the scene quickly, survey the location, talk to the principle figures involved and as many survivors, singly or in groups, as can be found. Reconcile their accounts, withdraw and compose their story at deadline speed. The simpler the picture, the better. Subtleties, nuances, wit and a fancy prose style were best left to the editorial page.

Even so, Marshall was no city desk hack: he had a clipped, declarative and aggressive style that was well-suited to his subject and was very much the vogue prose of the 1940s. On the eve of the war, he was a very successful journalist earning \$10 000 a year.36 He had learned his craft in the wild border town of El Paso, Texas, in the 1920s, and covered revolutions and disasters in Latin America. In 1927, he had won a prized place on the Detroit News, a paper he was connected with for the rest of his life. His editors learned to indulge his wide taste in subjects: during his childhood in El Paso before the First World War, Marshall was fascinated with sports and developed a liking for the polo games at Fort Bliss. By the Second World War, he was an habitue of polo grounds around the country, and while analogies between sports and warfare are, though often used, both invidious and trivialising, sorting out the details of group action was a problem with which Marshall was certainly familiar.3

Recognition by the military

Marshall was commended for his work in the Pacific. Brigadier General A. V. Arnold, then commanding the 7th Infantry Division, asked the War Department's permission to keep Marshall for the future training of the division. "It is difficult for me to express in words his value to the division", Arnold wrote. If the division could not keep Marshall, Arnold asked for "someone of Colonel Marshall's calibre". The commander of the 27th Infantry Division offered the opinion that Marshall had set the "pattern . . . for collecting historical data on the spot," and concluded that "If the Historical Section can send officers on such missions who are the equivalent of Colonel Marshall in judgement [sic]

and tact, I think they will always be welcomed by commanders". Although Marshall did not serve as an infantryman during the Pacific campaigns, the 7th Infantry Division awarded him the coveted Combat Infantryman's Badge. 40

Ever the dynamo, Marshall returned to Washington in April 1944, and immediately wrote Island Victory, which Infantry Journal first serialised and then published in cooperation with Penguin Books. By then, the Army's newly-formed military history detachments had been sent to other operational theatres of war, and preparations were being made for extensive coverage of the impending cross-channel invasion. With his successful Pacific experience, Marshall regarded himself as the pioneer of field historical operations, and he did not hesitate to proseltyise the technique he had conceived. In a post-war study of the Army's historical division, the Civil War historian Bell Wiley recalled:

Enthusiastic reports that [Marshall] made to the Historical Branch concerning mass interviews in the Pacific may have had considerable influence in promoting interviews of individuals and small groups by historical officers everywhere. 42

Marshall's creation of the "interview after combat" convinced him that he could lift the veil of mystery that, until then, had concealed the most elementary truths of how men conducted themselves at the sharp end of warfare. The immediate, first person voice of combat had never spoken in historical literature. Henceforth, the hidden knowledge of the hard trade of soldiering could be uncovered and analysed, and its precepts laid down for future application. Marshall's ratio of fire was the very incarnation of this new approach.

Marshall in Europe

Marshall's "restless nature" and his "distaste for routine" virtually guaranteed that when D-Day finally arrived, Marshall would be close at hand. 43 He landed in Europe in late June 1944. Marshall expected, and indeed, insisted, that his "interview after combat" method would work as well in Europe as it had in the Pacific. The Historian for the European Theatre of Operations, Colonel William A. Ganoe asked Marshall shortly after his arrival in England to write a summary of his methods for use by Ganoe's historical officers in the field. Ganoe cautioned his historians "to adapt the methods herein disclosed to your personality. The principles certainly are inviolable."44 Less than a month later, Ganoe saw fit to retreat on the question of inviolability, instructing his historians that when Marshall's methods were "not applicable", they should be adopted as far as possible. 4

Marshall had rank: he was a Lieutenant-Colonel by then. More important, he had the cachet of being a veteran of the Pacific campaign, and not least he had a confidence in his mission bordering on evangelical zeal. Yet even Marshall could not always reckon on being well received by the line troops or their commanders. Although Marshall was an unabashed admirer of the elite American parachute divisions and made them his special province while in Europe,

General James Gavin and the men of his 82nd Airborne Division had a nearly visceral reaction to Marshall's probing. Gavin met Marshall shortly after D-Day and thought "he did not seem to know much about the infantry". Later, in Holland, Gavin was asked by one of his old sergeants in the 505th Parachute Infantry Regiment:

General, who is this s.o.b. who comes around asking questions, wearing the insignia of another division, and who doesn't seem to know what he is talking about? Is he an IG? We are not telling him anything.

Evidently, the young historians who attempted to apply Marshall's techniques met resistance from combat troops who doubtless were mystified and sometimes resentful of these "rear echelon" investigators. ¹⁶

Nature of combat in Europe

In addition to these substantial obstacles, the very nature of combat in Europe differed sharply from that which Marshall had seen on the Pacific Islands. On Makin and Kwajelein, operations were physically contained, and combat was an affair of congested places and positions. The vegetation of the islands dictated extremely close combat, usually only a matter of yards. The enemy's culture and tactical habits often required suicidal battle discipline on all sides, and the islands provided little opportunity for

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26 Charing Cross Road London WC2H OLN American infantrymen even to pull back to the relative safety of reserve positions. European combat, on the other hand, allowed for a much greater dispersion of units, and in an Allied campaign whose chief objective was operational movement, the prospect of catching up with, and then actually being allowed enough time to conduct a detailed interview with an infantry company, was limited at best. 47

Convinced that his technique would work, Marshall set off on a round of interviews. Captain John Westover, a veteran of North Africa, Sicily, and Italian combat, was in tow as Marshall's military assistant. "I'm not sure just what my part will be", Westover wrote to his wife, "but it's going to be work. The Colonel is a slave driver—I'm probably going to be the slave". Without question, Marshall was peripatetic, spending time first with the units that had landed in Normandy, then returning to England to interview the companies of the 101st Airborne, then working with the 82nd in Holland and Belgium, and finally interviewing the units that had defended Bastogne in the Battle of the Bulge. "

Interview technique

In Men Against Fire Marshall claims to have interviewed "approximately" 400 infantry rifle companies in the Pacific and in Europe, but that number tended to change over the years. In 1952, the number had somehow grown to 603 companies; five years later, his sample had declined to "something over 500" companies. Those infantry companies—whatever their actual number—were his laboratories, the infantrymen his test subjects, and at the focal point of his research was the ratio of fire. "Why the subject of fire ratios under combat conditions has not been long and searchingly explored, I don't know," Marshall wrote. "I suspect that it is because in earlier wars there had never existed the opportunity for systematic collection of data". 50 (Italics added.)

Opportunity aplenty existed in Europe: more than 1200 rifle companies did their work between June 1944, and V-E day, 10 months later. But Marshall required by his own standard two and sometimes three days with a company to examine one day's combat. By the most generous calculation, Marshall would have finished "approximately" 400 interviews sometime in October or November 1946, or at about the time he was writing Men Against Fire.

This calculation assumes, however, that of all the questions Marshall might ask the soldiers of a rifle company during his interviews, he would unfailingly want to know who had fired his weapon and who had not. Such a question, posed interview after interview, would have signalled that Marshall was on a particular line of inquiry, and that regardless of the other information Marshall might discover, he was devoted to investigating this facet of combat performance. John Westover, usually in attendance during Marshall's sessions with the troops, does not recall Marshall's ever asking this question. Nor does Westover recall Marshall ever talking about ratios of weapons usage in their many private conversations.52 Marshall's own personal correspondence leaves no hint that he was ever collecting statistics. His surviving field notebooks show no signs of statistical compilations that would have been necessary to deduce a ratio as precise as Marshall reported later in Men Against Fire.⁵³ The "systematic collection of data" that made Marshall's ratio of fire so authoritative appears to have been an invention.

The character of infantry combat

Historians and writers, as a class, are no better or worse at documenting their life and work than anyone else. The absence of evidence for Marshall's statistics is only negative proof, and that is why Marshall's observation on combat performance must be examined on its own ground—the character of infantry combat itself.

The battleground required to accommodate Marshall's ratio of fire was one in which, first of all, every soldier could use his weapon at some time during the action if he chose. Whether in a defensive action of the kind Marshall saw on Makin Island, or in the advance against local resistance, the primary function of Marshall's soldier was to fire his weapon. The highest tactical ambition a commander could aspire to in Marshall's view was the employment of all weapons, presumably in concert, during any given action.

Any factor that would intrude upon an improved ratio of fire was discounted. Terrain, that most intimate and beloved companion of modern soldiers, played no role in Marshall's formulations. That the ground itself could govern and shape the tempo and rhythms of a combat action, preventing some men from firing and demanding performance from others, Marshall dismissed by examining actions that for the most part "had taken place under conditions of ground and manoeuvre where it would have been possible for at least 80 per cent of the men to fire, and where nearly all hands, at one time or another, were operating within satisfactory firing distance of enemy works". 54

Asymmetrical combat

Marshall understood very well that modern infantry combat is asymmetrical. "It is never the case," he wrote in Island Victory, "that all parts of a company are actually fighting at one time though all may be there on the battlefield". Further, he wrote "battle is never a maelstrom into which all are drawn equally but is rather a continuing line of small eddies, small fights, which are sometimes tactically related and sometimes not".55 The "line" of combat is merely a conceit; infantrymen are deployed in tactical arrangements that have more to do with enemy strength and ground than with staff college geometry. Thus, infantry combat is above all intensely relational, but hardly uniform. The infinite varieties of encounter between infantry make it possible for one part of a unit to be heavily engaged while another is left completely alone. 56 And although small unit leaders are drilled to see that the whole power of their units is properly employed, the range of their control, not to mention that of the soldiers themselves, during combat is extremely constricted. Indeed, some of Marshall's most astute passages in Men Against Fire are devoted to overcoming limitations that the lack of immediate tactical information imposes on combat commanders and their men. But by claiming that most of his interviews were concerned with actions in which four-fifths of those engaged could fire, Marshall negated the problem of combat asymmetry. Indeed, Marshall insisted that there were no physical limitations on combat performance. "The results," he wrote in Men Against Fire, "appeared to indicate that the ceiling was fixed by some constant which was inherent in the nature of troops or perhaps in our failure to understand that nature sufficiently to apply the proper correctives".57 The "constant," however, may not have been so certain after all. After Korea, musing before an audience in 1952, Marshall said, "I think perhaps I came out of the war [World War II] with too much of a conviction that our basic difficulty was in the development of fire". But he quickly added, "I would not retreat from any of the propositions that I made in the writing of Men Against Fire". Marshall had very nearly admitted in a moment of weakness that his interpretation, fixed in its scientific pose, was too frail a vessel to bear the weight of explaining a soldier's conduct in combat.58

The type of weapons employed

Yet the rhythms and tempo of combat are governed not only by the soldiers but also by the type of weapons they employ. A given infantry company in the Second World War employed a whole suite of weapons with a descending succession of power designed for particular range, volume and effect. Mortars, heavy and light machine guns, bazookas, automatic rifles; grenades, semi-automatic rifles and sub-machine-guns—all had a specific role in infantry combat, a role that ultimately was decided upon not by weapons designers or field manual writers, but by the soldiers themselves in constant experimentation. American theory and training during the Second World War held, for instance, that automatic weapons established and protected a company's flanks on the defence and provided suppressive fire for infantry in the advance. Inexperienced companies in Europe quickly found, however, that automatic fire immediately brought down upon them a deadly counterfire, and that in the defence one certain way of revealing one's flanks was to employ automatic weapons prematurely. Higher commanders would complain that doctrines were not being observed, but the men themselves preferred by far to let their supporting artillery break up enemy formations. Harold K. Leinbaugh, a co-author of The Men of Company K, is not in the least apologetic that he was uninterested in getting his company in the Second World War to lay down suppressive fire. Whenever he could, he called for artillery, and he found that a good lie about approaching enemy tanks always brought the guns to bear. 59 Such practices, very likely prevalent in every war and most certainly in modern war, are "soldier's doctrines", consisting of the hard-won, practical folk knowledge of combat itself. As one who made his career on his intimate knowledge of soldiering, Marshall should have known

that there are times in combat when one should not fire his weapons.

Marshall reported that once a soldier fired his weapon in combat, he tended to fire in all successive combats. The "active firers," he believed, "in the main were the same men who were carrying the fire fight for each company day after day." The successful combat soldier's performance in Marshall's mind was composed of only two stages: an apprenticeship, during which the soldier is "seasoned," after which he uses his weapon consistently. In this scenario, once the infantryman reaches the second stage he attains something akin to a state of soldierly grace. Looking around at the men in the companies he interviewed, Marshall wrote, "You could pick out your man who would probably keep going until he was dead".60 The soldiers of the Second World War knew better, knew that a graph of a man's time in combat would describe a ragged trajectory, knew that a hero one day could be a coward the next, and in their very special world knew that consistency was the last thing they could expect.61

S. L. A. Marshall's ratio of fire cannot be proved. The foundations of Marshall's claim lay not in statistical formulations or scholarly research but in his own experiences and observations of war. "Contemptuous of people only interested in methodology,' Westover remembers, and "intensely practical," Marshall considered statistics "an adornment" of belief.62 Ironically, Marshall chose to voice his belief in the idiom of science, as if to confer an absolute authority on his findings—the science that even then called into question the continuing utility of soldierly combat and moved him to write Men Against Fire.

History has a savage way about it. A reputation may be made or unmade when history seizes upon part of a life and reduces it to caricature. S. L. A. Marshall was one of the most important commentators on the soldier's world in this century. The axiom upon which so much of his reputation has been built overshadows his real contribution. Marshall's insistence that modern warfare is best understood through the medium of those who must actually do the fighting stands as a challenge to the disembodied, mechanistic approaches that all too often are the mainstay of military theorists and historians alike. "That lesson," Marshall wrote in Men Against Fire, we are "at the point of forgetting".63 Forty years later, as the quest for universal laws of combat continues unabated, Marshall is still right.64

¹ Brodie's elegant formulation of nuclear deterrence read, "Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other purpose". Bernard Brodie, ed., The Absolute Weapon: Atomic Power and World Order (Brace Harcourt, New York, 1946), p. 76. See also Lawrence Freedman, The Evolution of Nuclear Strategy (St. Martin's Press, New York, 1981), 3; Colin Gray, Strategic Studies and Public Policy (University of Kentucky Press, Lexington. 1982), pp. 30-32; and Gregg Herken, "The Not-Quite-Absolute Weapon: Deterrence and the Legacy of Bernard Brodie", Journal of Strategic Studies, Vol. 9, No. 6 (December 1986), p. 22.

2 S. L. A. Marshall, Men Against Fire: The Problem of Battle

Command in Future War (The Infantry Journal Press, Washington, 1947; reprint ed., Gloucester, Massachusetts, Peter Smith, 1978), pp. 20, 26 (hereinafter cited as Marshall, Men Against Fire).

3 From the turn of the century onwards and corresponding

roughly to the rise of modern psychiatry and the behavioural sciences, a body of knowledge grew up that addressed the human dimensions of modern warfare. During the Second World War, the American armed forces made a substantial investment in an attempt to understand how and why soldiers fought. Unfortunately, during that war and since, this body of knowledge has not been synthesised, nor has it been integrated with the broader military arts. Military historians, with few exceptions, are ignorant of the insights readily available on the soldier in combat from the behavioural sciences. The best known, and most widely cited study, dating from the Second World War, is Samuel Stouffer, et. al., The American Soldier, Vol. II: Combat and Its Aftermath (Princeton University Press, Princeton, 1949).

Marshall, Men Against Fire, p. 56.

Ibid., pp. 51, 53. Marshall's association of fire with elan was hardly new. Ferdinand Foch, in particular, would have applauded Marshall's fixation upon fire. See Michael Howard, "Men Against Fire: Expectations of War in 1914," International Security, Vol. 9, No. 1 (Summer 1984), pp. 41-57; and Stephen Van Evera, "The Cult of the Offensive and the Origins of the First World War,"

ibid., pp. 58-61.6 Interview with Professor John G. Westover, 15 June 1987. Westover was Marshall's assistant in Europe from July 1944, until the end of the war and was a lifelong friend. See also Westover's recollections of Marshall in "Describing the Colonel," Newsletter of the S. L. A. Marshall Military History Collection, No. 11 (Summer 1985), pp. 1-4 (hereinafter cited as Marshall Newsletter); "The Colonel Goes Interviewing," ibid., No. 12 (Winter 1985-1986), pp. 1-3; and "Marshall's Impact," ibid., No. 13 (Summer

1986), pp. 1-3. 7 See Marshall, "Genesis to Revelation," Military Review, Vol.52, No. 2 (February 1972), p. 17; S. L. A. Marshall, "The Human Equation in Combat, 16 October 1952," p. 3, in S. L. A. Marshall, S. L. A. Marshall at Fort Leavenworth: Five Lectures at the US Army Command and General Staff College, ed. by Roger J. Spiller (US Army Command and General Staff College, Fort Leavenworth, KS, 1980), hereinafter cited as "Staff College Lectures"; and Dale L. Walker, Interview with S. L. A. Marshall, 18 May 1972, p. 11, typed transcript, in S. L. A. Marshall Military History Collection, Library of the University of Texas at El Paso, Texas (hereinafter cited as "Marshall Collection"). On the matter of Marshall's commission, see Mrs. C. C. Marshall to the War Department Adjutant General's Office, 13 March 1933; and BG James F. McKinley to Mrs. C. C. Marshall, 24 March 1933, in BG S. L. A. Marshall Military Personnel File, National Personnel Records Center, St. Louis, MO (hereinafter cited as "Marshall 201 File").

8 P. J. Searles, review of Men Against Fire, by S. L. A. Marshall, in New York Herald Tribune Weekly Book Review, 19

October 1947, p. 23.

9 Sgt 1st Class Frederick J. Lurie, "Everybody in the Army Should Read it: Men Against Fire," Infantry Journal, Vol. 63, No. 6, October 1948, p. 47; see also, "Editor's Note," ibid.

10 "A Lieutenant," in "Letters to the Editor," Infantry Journal, Vol. 63, No. 6, October 1948, p. 46,67

Vol. 62, No. 3, March 1948, pp. 66-67.
11 S. L. A. Marshall to B. H. Liddell Hart, 8 February 1950, in The Papers of B. H. Liddell Hart, Liddell Hart Centre for Military Archives, King's College, University of London. I am indebted to King's College for permission to quote from these papers (hereinafter cited as Marshall-Liddell Hart correspondence).

12 Marshall, Men Against Fire, p. 9.
13 See also, S. L. A. Marshall, Commentary on Infantry
Operations and Weapons Usage in Korea, Winter of 1950-51 (The Johns Hopkins Operations Research Office, Chevy Chase, MD, 1951), pp. 4-5. In this restricted (now declassified) report, Marshall was a good deal more equivocal about the ratio of fire in Korea than his preface in Men Against Fire would have his readers believe; even so, with qualifications Marshall reported that "when the ground and situation permit it, the measure of willing participation is more than double World War II averages . . . The chronic non-firer is an exception under the conditions of Korean fighting".

14 Roger A. Beaumont and William P. Snyder, "Combat Effectiveness: Paradigms and Paradoxes", in Sam Sarkesian, ed., Combat Effectiveness (Sage Publications, Beverly Hills, CA,

15 Russell F. Weigley, Eisenhower's Lieutenants: The Campaigns of France and Germany, 1944-1945 (University of Indiana Press, Bloomington, 1981), p. 26.

16 John English, On Infantry (Praeger Press, New York,

1984), p. 145. 17 Ibid.; Eric Leed, No Man's Land: Combat and Identity in World War I (Cambridge University Press, New York, 1979),

18 John Keegan, "The Historian and Battle", International

Security, Vol. 3, No. 3, Winter 1978/1979, p. 145.

19 Ibid., p. 147. British scholars are more reserved in their acceptance of Marshall's axiom. See, for example, Richard Holmes, Acts of War: The Behaviour of Men in Battle (The Free Press, New York, 1985), p. 13. John Ellis, The Sharp End: The Fighting Man in World War II (Charles Scribner's Sons, New York, 1980), does not cite Marshall's ratio at all. See also, David Rowland, "Assessments of Combat Degradation", RUSI Journal,

Vol. 131, No. 2, June 1986, p. 33.

20 Keegan, "The Historian and Battle", p. 145.

21 S. L. A. Marshall, Island Victory (Infantry Journal Press, Washington; Penguin Books, 1944), pp. 14-26. 201-213 (hereinafter cited as Marshall, Island Victory). Martin Blumenson, one of Marshall's combat historians in the European Theatre, believes Marshall "invented a literary form, the reconstruction of battle on the personal terms of the participants", and "thereby dissipated the traditional fog of war". See Martin Blumenson, "My Recollections of S. L. A. Marshall," Marshall Newsletter, No. 11,

Winter 1986-87, p. 2.

22 S. L. A. Marshall, Bringing Up the Rear, ed. by Cate Marshall (Presidio Press, San Rafael, CA, 1979), pp. 57-59, is Marshall's posthumous autobiography and describes his part in the Army's nascent official history programme. For a rather more balanced view of events, see Stetson Conn, Historical Work in the United States Army, 1862-1954 (US Army Center of Military, Washington, 1980), pp. 76-93; Kent Roberts Greenfield, The Historian and the Army (Rutgers University Press, New Brunswick, NJ, 1954; reprinted by The Kennekat Press, 1970), pp. 11-13; and Bell I. Wiley, "Historical Program of the Army from 1939 to Present", unpublished typescript, Part III, Historical Records Collection, US Army Center of Military History, Washington, DC, undated (circa 1953), pp. 2-3.

23 Marshall, Island Victory, pp. 15-26.

 Marshall, Bringing Up the Rear, p. 72.
 Marshall, Island Victory, pp. 18, 22; and Marshall, Men Against Fire, p. 55.

26 Marshall, Island Victory, pp. 25.

27 Keegan discusses Siborne in The Face of Battle, pp. 118, 120. In 1881, Siborne's son, Major General H. T. Siborne, edited his father's collection of letters. His preface describes his father's work on Waterloo and reproduces the circular letter Siborne the elder sent to his fellow officers. See H. T. Siborne, ed., Waterloo Letters, 2 vols. (Cassell and Company, London, 1891), pp. i-xi. See also, "W. T. Siborne," in Dictionary of National Biography ed. by Sir Leslie Stephen, Vol. 18 (Oxford University Press, London, 1897), pp. 185-186.

28 Ardant du Picq, Battle Studies: Ancient and Modern Battle trans. by John N. Greely, and Robert C. Cotton (The Military Service Company, Harrisburg, PA, 1946). For appraisals of du Picq's place in modern military thought, see Michael Howard, "Men Against Fire", pp. 41-57, and esp. pp. 40-50; L. Nachin, "Ardnant du Picq", Revue militaire francaise, Vol. 16, July-September 1925 and October-December 1925, pp. 358-371, and pp. 54-67; and Stefan T. Possony and Etienne Mantoux, "Du Picq and Foch: The French School", in Edward M. Earle, ed., The Makers of Modern Strategy (Princeton University Press, Princeton,

1943), pp. 206-218. 29 Marshall, Men Against Fire, p. 154.

30 Stephen E. Ambrose to S. L. A. Marshall, 12 August 1964 and 21 August 1964, Correspondence Files, Marshall Collection.

31 Note in S. L. A. Marshall's hand, flyleaf of Ardant du Picq's Battle Studies, in Library of Marshall Collection. See also Walker, Marshall Interview, 18 May 1972, in Marshall Collection.

Keegan, The Face of Battle, p. 72.Marshall, Island Victory, p. 21.

34 Marshall had a checkered educational record. By his own account he was an indifferent student and did not finish high school before enlisting in the Army in 1917. After the war he put in a semester or two at the Texas School of Mines. Later, he was happy to tell his military audiences that he had no professional military schooling. See Marshall, Bringing Up the Rear, pp. xii, 2-3, 9, 12-13.

35 As the Second World War began, the Historical Section of the Army War College, under the direction of General Oliver L. Spaulding, was still working on the Army's official history of the First World War. Doubtful that Spaulding's longer view of doing official military history promised any hope of success in the current conflict, several officers held a rump session in early 1943 and began a campaign of their own to capture the operational history of the war. LTC John Mason Kemper became the chief of the new "Historical Section" of the Army's G-2 (Intelligence) in July of the same year. Kemper was the first historical officer to attempt combat reporting. Unfortunately, Kemper chose the Kiska operation in the Aleutian Islands, an operation notable for the unobliging departure of the enemy before the arrival of American troops. Ibid., p. 58. See also, Conn, Historical Work in the United States Army, pp. 76-93.

36 S. L. A. Marshall, "Personnel Placement Questionnaire," 24 August 1942, p. 3, in Marshall 201 File.

37 See Marshall's, Bringing Up the Rear, pp. 18-45, for an

account of his interwar career in journalism.

38 BG A. V. Amold to MG Clayton Bissell, 9 April 1944, In Marshall 201 File.

39 MG Ralph C. Smith to MG George V. Strong, 12 December 1943, in Marshall 201 File.

40 HQS, 7th Infantry Division, Special Orders Number 30, paragraph 2, 1 March 1944, in Marshall 201 File.

Conn, Historical Work in the United States Army, p. 95.

42 Wiley, "Program of the Army," p. 3.
43 The characterisations are Wiley's, *ibid.*, pp. 2-3.
44 William A. Ganoe, "Methods of Interviews based on success of Lt. Colonel S. L. A. Marshall in the Pacific", Memorandum to the members of the Historical Teams, HQS ETO, 26 June 1944, in Marshall Collection.

45 William A. Ganoe, Memorandum to Historical Teams in the Field, HQS ETOUSA, 15 July 1944, National Archives Record Group 332, Box 33, ETO Historical Division Administra-

tive Files.

 46 LTG James Gavin (USA, Ret.) to author, 24 June 1987.
 47 In each of the theatres of war, combat had its own peculiar characteristics, making special demands upon those who did the fighting. Samuel Stouffer and his colleagues attempted a comparison of combat in the Pacific and the ETO, but the results, inevitably, were equivocal; the study found that while in terms of the duration of intense combat and the casualties, the Pacific battle was less severe than those in Europe, "in nearly every other respect . . . the men in the Pacific faced conditions which severely tested morale and combat efficiency". All of which is to say that, to the combatants, such distinctions are meaningless. See Stouffer, *The American Soldier*, II, pp. 69-70.

48 Westover, "Describing the Colonel", pp. 1-4. See also,

note 8.

49 Marshall, Men Against Fire, p. 53. The actual number of companies Marshall remembered interviewing in October 1952 was 603; by May 1957, it was "something over 500." See Marshall, "The Human Equation in Combat, 16 October 1952," p. 5; and Marshall, "Salesmanship for the Army, 20 May 1957," p. 39 in "Staff College Lectures".

50 Marshall, Men Against Fire, p. 53. 51 "To reconstruct one day of vigorous battle will usually take about two days of briefing (five to six hours each day), provided the men are given the opportunity to do most of the talking. They will always be keener and will participate more freely on the second day, and if a third day is needed, the response will again rise." Marshall, Island Victory, p. 22; see also p. 211. Interestingly, Marshall's summary of his interviewing techniques, when written for Ganoe, did not include the time required to accomplish a company interview. See note 49.

52 Interview with Professor John Westover, 15 June 1987. Westover is sure Marshall "never ran any statistical survey". Another Marshall intimate, Dr Hugh Cole, who was Deputy Theatre Historian, first under Ganoe and then under Marshall himself, wrote in his obituary for Marshall that the statistic "was open to grave question." See High M. Cole, "S. L. A. Marshall (1900-1977): In Memoriam", Parameters, Vol. 8 (March 1978,

p. 4.
53 The S. L. A. Marshall Military History Collection at the Marshall's official and personal correspondence, draft manuscripts, and ephemera. A considerable body of correspondence between Marshall and B. H. Liddell Hart is collected at the B. H.

Liddell Hart Centre for Military Archives, King's College, London. The US Army Military History Institute, US Army War College, Carlisle Barracks, PA, holds several of Marshall's field notebooks. Some administrative records from the G-2 Historical Division bearing upon Marshall's wartime career are held at the National Archives and in the Historical Record Collection of the US Army Center of Military History, Washington, DC. The US Army's Personnel Records Center, St. Louis, MO, holds Marshall's personal Service, or "201" file. None of these documentary sources indicate Marshall collected statistics that could be used in establishing a ratio of fire.

Marshall, Men Against Fire, p. 54. Marshall, Island Victory, p. 205.

Marshall, Men Against Fire, pp. 64-65, 89-90.

57 Ibid, p. 57.
58 See Marshall, "The Human Equation of Combat, 16 October 1952," pp. 8-9, and "Problems in Combat Leadership, 3 December 1962", p. 35, in "Staff College Lectures".

The author is indebted to Harold K. Leinbaugh and, indeed, to all those combat veterans from the Second World War, Korea, and Vietnam who accepted the heavy burden in many discussions over the years of educating him to the mysteries of modern infantry combat in practice.



Marshall conducting mass after-action interview after Normandy 1944.

Photo: S. L. A. Marshall Military History Collection.

Marshall, Men Against Fire, p. 59.

During the Second World War, two researchers attempted a scientific description of the soldier's life in combat. See Roy Swank and Walter E. Marchand, "Combat Neuroses: Development of Combat Exhaustion," Archives of Neurology and Psychology, Vol. 55 (1946), pp. 238-241. Various Allied armies during the war at least acknowledged and attempted to operate on standards that implicity recognised soldiers in combat, however adept, had their limits. See Edward J. Drea, "Unit Reconstitu-CSI Reports No. 3 (December 1983), pp. 16-19. tion, "CSI Reports No. 3 (December 1703), pp. 15-16.
62 Interview with Professor John Westover, 15 June 1987.

63 Marshall, Men Against Fire, p. 63.
64 See John W. R. Lepingwell, "The Laws of Combat? Lanchester Re-examined," International Security, Vol. 12, No. 1 (Summer, 1987), pp. 89-134; and Thomas F. Homer-Dixon, "A Common Mis-application of the Lanchester Square Law", ibid., pp. 135-139.